

The Upsurge and Fading Away of Desertification
As an International Policy Issue:
Retracing the Institutionalization of an Environmental Mirage

A Dissertation

By

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Abstract

“If desertification denotes an environmental crisis consisting of irreversible degradation on a sub-continental scale, then the most significant thing about desertification in the Sahel is that it never happened” (Behnke and Mortimore, 2016: 3).

While degradation is certainly a reality in some localities of the Sahel or with respect to certain components of the environment, it is now acknowledged that there is no evidence of a catastrophic regional environmental crisis; in retrospect it now seems that the mostly reversible effects of a persistent drought were simply confused with long-term degradation. How comes, then, that desertification has been institutionalized as an issue of primary environmental concern for nearly seventy years, requiring concerted management at the international level and the establishment of a United Nations Convention to deal with it?

In order to answer to this question, this research aims at investigating the evolution of the concept of “desertification” in international policy environments and its on-the-ground operationalization, in order to shed light on the puzzling process that has led a now dismissed scientific concept to be for several decades the subject of a formal institutional process, a central political and ecological global issue, and a stimulus for action in international development.

The research’s methodology is based on secondary sources’ data analysis; it primarily adopts a theoretical approach oriented towards a descriptive review of concepts, interpretations and assumptions related to desertification, their contextual operationalization and framing of action. The critique proposed in the second part of the dissertation finds its theoretical background in critical strands of political ecology and, more importantly, environmental policy processes research. Thanks to the analytical lens offered by this background, the desertification policy puzzle is better framed and understood, and explications are found related to the United Nation Convention to Combat Desertification’s recent strategic shifts, which are grounded into the tradition of contradictory and un-linear policy phases of desertification.

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Introduction

The past decades have witnessed the "globalization" of environmental issues and a marked growth in international environmental agreements. In addressing the complexity of problems such as ozone depletion, climate change, and biodiversity, policymakers have increasingly looked to science for guidance in identifying global threats and their consequences. A rather peculiar case, the international upsurge in interest in desertification started in the late 1970s was driven more by politics than science, and its impacts sorted out accordingly.

From its inception to the present, desertification research has been targeted at and deeply involved in the formulation of public policy. The institutionalization of the desertification issue offered an opportunity for many dryland nations to garner international attention and support (i.e., attracting economic development) that would not have happened otherwise. However, uncertainties about the scientific basis of the processes involved made it difficult to define a clear course of action, paving the way to multiple interpretations and policy orientations. The consequences of this process are still unraveling today, and constitute the object of enquiry of this dissertation.

The first part of the dissertation, organized in three sections, provides a comprehensive review from a historical and political perspective of the birth and upsurge of the concept of desertification as an international environmental policy issue. This part of the dissertation is descriptive, and sets the stage for the discussion: in the first section, the architecture of the United Nations Convention to Combat Desertification (UNCCD) is reviewed, in the broader context of international environmental governance; the second section aims at introducing more in details the phenomenon of desertification, providing some information about its scientific background; the third section adopts a historical perspective and traces the evolution of the concept in environmental governance, from the colonial times until the negotiating process of the UNCCD in the 1990s.

Building on the first part, the second part of the dissertation adopts an analytical approach with the aim of shedding some light upon the reasons behind the recent shift in object, focus and coverage of the UNCCD. In order to do that, the analysis deals, on the one hand, with the institutional weaknesses and operational difficulties of the UNCCD, which have led to the adoption of a renewed framework in 2008 (the Ten Year Strategy) and to, more recently, the institutional mainstreaming of the concept of Land Degradation Neutrality.

On the other hand, the process by which the desertification discourse has shaped policy interventions in the drylands over the decades is analyzed: key historical shifts in the evolution of the narratives and counter-narratives of desertification discourse are highlighted, and their relationship with scientific research.

These two analyses come together in the last sections of the second part of the dissertation, where UNCCD's recent changes in strategy are positioned in continuity with the tradition of un-linear and contradictory policy phases of desertification – which respond less to improved scientific understandings of the phenomenon than to contingent political contexts, and strategic needs of dominant institutional actors. In the context of this analysis, the focus is kept on the global dimensions of the policy process, and on how knowledge and ideas circulating at the international scale influence policy in particular ways.

The concept of Land Degradation Neutrality, although rich in potential from a strategic point of view, will have to face operational challenges at the national level to be implemented, while truly bottom-up inputs into the elaboration of the agenda of action seem to have missed, and a satisfying mainstreaming of social sciences' insights into the Convention's most recent framings of land degradation phenomena (and following action strategies) appears to lack more than ever. The moving of the focus on drylands to the background appears as a controversial choice given the mandate of the Convention – a choice that, moreover, comes at a time when scientific knowledge about the ecological, social and biophysical functioning of these areas is becoming increasingly solid, and likely to provide useful insights for policy action.

The UNCCD's change in approach is questioned on conceptual and methodological bases; at the core of this critique lies the belief that addressing the environmental issue of land degradation through a global comparative discourse is a pointless exercise that runs the risk of leading to inconclusive development policy, as it was the case in earlier decades. Land Degradation Neutrality is thus defined as a new “mirage” that has been adopted by the UNCCD as a replacement for the unusable concept of desertification. On these premises, success of the Convention appears to be compromised.

I. The creation of an international regulatory framework to combat desertification

I.1. The United Nations Convention to Combat Desertification (UNCCD)

In 1992, the United Nations General Assembly, as requested by the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil, called for the establishment of an intergovernmental negotiating committee for the elaboration of a convention to combat desertification. On 17 June 1994, the United Nations Convention to Combat Desertification (UNCCD) was adopted in Paris, and 17 June became the World Day to Combat Desertification and Drought. The UNCCD entered into force in December 1996, 90 days after the 50th ratification was received. The Conference of the Parties (COP), which is the Convention's supreme governing body, held its first session in October 1997 in Rome, Italy. Since 1999 the secretariat of the Convention has been located in Bonn, Germany.

The UNCCD, with its five regional implementation annexes for Africa, Asia, Latin America and the Caribbean, the Northern Mediterranean and, since 2000, for Central and Eastern Europe, has become part of the legal international architecture, by bringing forward the issue of desertification as a fully fledged item in the global sustainable development agenda.

The UNCCD focuses explicitly on the protection of natural resources and the fight against poverty in the arid, semi-arid and dry sub-humid zones of the world. It obliges affected developing countries to design strategies against land degradation in so-called "national action programmes" (NAPs) and to reconcile them with existing measures in the fight against poverty and the safeguarding of food production. For their part, the industrialized nations are required to provide substantial financial contributions as well as scientific and technological support so that the proposed measures can be enacted. The challenge is "to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach, which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas" (article 2.1).

The “innovative” approach of the convention

The signature of the UNCCD in 1994 introduced an approach to combat desertification that focused for the first time on both natural and socioeconomic processes, as well as on participation. This approach was strongly inspired by the concept of sustainable development and by new insights on the linkages among desertification, environmental degradation, and poverty. The convention was also the result of a compromise between developed and developing countries and the product of intense lobbying on the part of African countries (as it will be analyzed in the following section concerning the Convention’s negotiating process).

The UNCCD definition of desertification combines both the anthropogenic and biophysical processes that are at play in the land degradation process. The dual focus on human and natural causes of desertification constitutes the conceptual underpinning of the UNCCD: the convention Preamble recognizes that “desertification and drought affect sustainable development through their interrelationship with important social problems such as poverty, poor health and nutrition, lack of food security, and those arising from migration, displacement of persons and demographic dynamics” (UNCCD 1994, Prologue). In line with this recognition, the UNCCD commits parties to “adopt an integrated approach addressing the physical, biological and socioeconomic aspects of the processes of desertification and drought” (art. 4.2[a]), and to “integrate strategies for poverty eradication into efforts to combat desertification and mitigate the effects of drought” (art. 4.2[c]). The UNCCD also commits affected country parties to “address the underlying causes of desertification and pay special attention to the socioeconomic factors contributing to desertification processes” (art. 5[c]).

As many authors have pointed out, one of the most promising aspect of the convention was to provide a framework for community-based, participatory approaches in the elaboration and implementation of activities (which made it an “innovative and strategic instrument”, according to Johnson et al., 2006: 5) – in line with the overall commitment to the improvement of living conditions “in particular at the community level” (art. 2.2). In order to achieve this, national, regional and sub-regional action programmes, which constitute the primary implementation tool, must provide “for the effective participation at the local, ...levels of non-governmental organizations and local populations, both women and men, particularly resource-users, including farmers and pastoralists and their representative organizations, in policy-planning, decision-making, and implementation and review of national action programmes” (art. 10.2[e]).

The UNCCD is thus a multi-layered legally binding cooperation instrument and establishes a framework for the development of NAPs, SRAPs and RAPs and international cooperation which are mutually reinforcing instruments. It consists of a governance framework which is similar to that of its two sister conventions, the Convention on Biological Diversity (CBD) and the Framework Convention on Climate Change (UNFCCC). The UNCCD is governed by the Conference of the Parties (COP), which is established by the Convention as the supreme decision-making body, and it comprises all Parties to the Convention. The first five sessions of the COP were held annually from 1997 to 2001. Starting in 2001, sessions were held on a biennial basis. The COP has two subsidiary bodies: the Committee on Science and Technology (CST) was established under Article 24 of the Convention as a platform for scientific collaboration under the UNCCD. The Committee for the Review of the Implementation of the Convention (CRIC) was established at COP 5 in 2001. It is a standing subsidiary body to assist in regularly reviewing the implementation of the Convention (Holtz, 2003: 7).

Finally, the Convention is meant to be an instrument for coordinating financial resources from multiple sources, including those of foundations, non-governmental organizations and private sector entities, with the aim of maximizing benefits for the dryland communities. In practice, “this approach operates through partnership agreements among donors, affected countries, and dryland communities, in which one donor may play a *chief de file* role, or consortium leader and resource mobiliser” (Johnson et al., 2006: 6).

The UNCCD in the broader context of international environmental governance

Since the beginning of the 2000s, global sustainable development governance was greatly influenced by the framework of the MDGs, which established a set of objectives and targets that drew almost universal adhesion among states and international institutions. Among these were the two interrelated goals of poverty alleviation and environmental sustainability. The first MDG set the target to halve by 2015 the number of people suffering from hunger (Target 2); the seventh MDG set the objective to integrate the principles of sustainable development into country policies and programmes and to reverse the loss of environmental resources (Target 9).

With its dual focus on poverty and land degradation in rural drylands, in 2002 the World Summit on Sustainable Development (WSSD) recognized the UNCCD as “one of the tools for poverty eradication” in the world and as being in line with the MDGs, while also stressing the need to mobilize adequate and predictable financial resources for

implementation of the UNCCD¹ (Johnson et al., 2006). Moreover, the Convention seeks to coordinate its activities with other instruments of environmental governance. According to article 8, the UNCCD should encourage coordination with other multilateral environmental agreements (MEAs), particularly the UNFCCC and the CBD. This coordination can extend to the conduct of joint programmes, particularly in the fields of research, training, systematic observation, and information collection and exchange.

Accordingly, the UNCCD has developed a work programme with the CBD and a memorandum of understanding was signed with the Ramsar Convention in 1998; the UNCCD has also collaborated on multiple initiatives, including with UNEP on the Land Degradation Assessment for Drylands (LADA) and the Millennium Ecosystem Assessment. Other arrangements for cooperation have also been concluded with the United Nations Development Programme (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Meteorological Organization (WMO). Moreover, the United Nations Environment Programme (UNEP) continues to implement and develop projects on land degradation for financing through the Global Environment Facility (GEF). The World Bank's projects have specific funding for sustainable land management components covering the key themes of agriculture, forestry, land and water resources management, which are central to realizing the objectives of the UNCCD. The most important initiative recently launched by the World Bank remains the "TerrAfrica" (Holtz 2007).

The secretariats of the UNFCCC, the CBD and the United Nations Convention to Combat Desertification established a Joint Liaison Group (JLG) in August 2001 in order to enhance coordination among the three conventions, and to explore options of further cooperation, including the possibility of a joint work plan. The JLG aims to collect and share information on the work programmes and operations of each convention. The first meeting of the JLG took place in Washington DC, the United States of America, on 6 December 2001. The participants include the executive secretaries of the three conventions, officers of the subsidiary bodies and members of the secretariats. The purpose of the group is to share information on plans for the forthcoming years and to explore opportunities to enhance cohesion and synergies among the three secretariats and their respective subsidiary

¹ In a strong political signal, the WSSD called on the Second Assembly of the Global Environment Facility (GEF) to take action on the recommendations of the GEF Council concerning the designation of land degradation, desertification and deforestation as a focal area of the GEF as a means of obtaining GEF support for the successful implementation of the UNCCD (Holtz, 2003: 10). The issue will be further addressed in the following sections.

bodies. The responsibility for organizing and chairing subsequent meetings rotates among the secretariats². The UNCCD website also reports that the synergy approach results from the evident need to strengthen and sustainably address the current challenges posed by the intricate linkages among climate change, biological diversity, drought and desertification on the social, economic and environmental fronts; there appears to be clear convergence of objectives among the three Rio Conventions, and Parties to these Conventions have repeatedly called for a confluence of strategic approaches particularly at the country level.

The UNEP Millennium Ecosystems Assessment points to the evidence that drought and desertification-related phenomena affect ecosystems, sustainable livelihoods of vulnerable populations, and tend to reduce their resilient capacities, thus incurring in global economic, environmental and social costs. Desertification and drought are reported to account for most of the biodiversity loss in dry and sub-humid lands, thus having impacts at the global and regional scale. Desertification-related processes such as reduction of vegetation cover, for instance, increase the formation of aerosols and dust. These, in turn, affect cloud formation and rainfall patterns, the global carbon cycle, and plant and animal biodiversity. Finally, reduction of vegetation cover in drylands leads to destructive floods downstream and excessive clay and silt loads in water reservoirs, wells, river deltas, river mouths, and coastal areas often located outside the drylands.

Societal and political impacts are also reported to be influenced by desertification, potentially extending to non-dryland areas: in fact, droughts and loss of land productivity are considered as predominant factors leading to movement of people. Such migration may exacerbate urban sprawl and, by competing for scarce natural resources, bring about internal and cross-boundary social, ethnic, and political strife. Desertification-induced movement of people also has the potential of adversely affecting local, regional, and even global political and economic stability, which may encourage foreign intervention (UNEP-MA(b), 2005: 8).

Although the seriousness of such arguments is not in question, in the second part of the dissertation the soundness and solidity of the interpretations and solutions proposed in the environmental international governance framework to deal with the issue at stake will be scrutinized. Before proceeding to such analysis, the issue of desertification will be introduced in more detail, both from a “scientific” and historical perspective, following the

² See <http://www.unccd.int/en/programmes/RioConventions/Pages/default.aspx>.

debates that have developed around this theme over the last century, and the policy and institutional outcomes that have followed from (and shaped at the same time) the definition of the problem.

The following section will review the paramount difficulties that have impeded the formation of a solid, consistent body of knowledge on the topic of desertification, because of the complex multidimensional nature of the problem. The last section of the first part of the dissertation will take a more political and historical stance, tracing the presence and evolution of the concept of “desertification” in international policy environments – a process that reached its highest peak with the adoption of the United Nations Convention to Combat Desertification.

I.2. An introduction to the concept of “desertification”

The hundreds of formal definitions that have been proposed to describe the phenomenon of desertification, covering many spatial and temporal scales and representing different viewpoints, reflect – or perhaps promote – some of the confusion and controversy surrounding the concept. The choice of the term “desertification” itself appears to be linked more to the increasing influence of media over the last sixty years – and the consequent need of concepts not only clear, but also easily understood by a large public – than to a solid scientific basis. Desertification thus seems to belong to the category of those “auto-defined” concepts or expressions whose apparent clarity often masks a deeper confusion in terms of underlying processes that define them, as we will see in the following paragraphs.

While concerns about desiccation and environmental deterioration in the world’s drylands date back to colonial times in West Africa and the massive soil erosion during the 1930s that became known as the “Dust Bowl” in the American Great Plains, more systematic scientific inquiry into dryland environments only began with the establishment of the UNESCO Arid Zone Research Programme in 1951. That makes dryland research a relatively young field in science and a frontier of knowledge (Herrmann and Hutchinson, in Johnson et al., 2006: 11). Moreover, it was only after the unusually intense series of droughts that hit the African Sahel region from the late 1960s throughout the 1970s, and the human suffering caused by it, that a worldwide upsurge in scientific research on drylands ultimately led to the organization of the United Nations Conference on Desertification (UNCOD), held in Nairobi in 1977. The conference not only launched the desertification issue into the political arena but also triggered a great deal of scientific interest – and controversy.

Although much research since then has aimed at understanding the mechanisms behind “desertification” and its linkages with drought and human land use, the scientific basis for recognition of desertification as an irreversible process remains rather weak. While the occurrence and severity of local-scale land degradation in many drylands is not disputed, there is insufficient scientific evidence of large-scale permanent desertification. For lack of a more precise concept, however, the term desertification is still widely used in scientific or popular circles to refer to a multitude of land cover change phenomena, despite its acknowledged limitations and lack of clarity about the fundamental nature of the problem

and the lack of measurable criteria (Herrmann and Hutchinson, in Johnson et al., 2006: 11-12).

The notion of desertification, which is at the same time a scientific theme, a political and ecological global issue, and a stimulus for action in international development, particularly lends itself to be analyzed from a historical standpoint, because it is at the core of the concerns of the international community for the Sahelian region and its environmental management, spanning from the colonial times until today.

Notwithstanding the scientific nature of the theme, which continues to stimulate lively debates, desertification had a major impact at the development level by providing the arguments to “modernize” regions of the developing world (namely in Africa) through disqualification of local management practices, thus contributing to the implementation of the protection of the African environment decided by colonial authorities (Gagnol 2011). This process is rich in consequences, as it will be seen in the next sections. Before, it will be however useful to briefly review the scientific basis, operational difficulties and conceptual developments that have characterized the last fifty years of research on drylands and desertification.

Dryland ecosystems

Drylands are regions affected routinely by moisture deficits. These regions are marked not only by low precipitation totals, but also by extreme inter-annual variability and extended drought. Scarcity of water in drylands constrains their two major interlinked services – primary production and nutrient cycling. Over the long term, natural moisture inputs (that is, precipitation) are counterbalanced by moisture losses through evaporation from surfaces and transpiration by plants (evapotranspiration). The potential water deficit affects both natural and managed ecosystems, which constrains the production of crops, forage, and other plants and has great impacts on livestock and humans (Herrmann and Hutchinson, in Johnson et al., 2006: 12).

From a functional point of view, the Millennium Ecosystem Assessment (MA)³ classifies drylands ecosystem services into the following four broad categories: (i) provisioning,

³ The Millennium Ecosystem Assessment was called for by United Nations Secretary-General Kofi Annan in 2000. Governments subsequently supported the establishment of the assessment through decisions taken by four multilateral environmental conventions – the Convention on Biological Diversity, the U.N. Convention to Combat Desertification, the Ramsar Convention on Wetlands, and the Convention on Migratory Species. The MA was initiated in 2002, with the secretariat coordinated by the United Nations Environment Programme, and governed by a multistakeholder board. The objective of the MA was to assess the consequences of ecosystem change for human well-being and to establish the scientific basis for actions needed to enhance the conservation and sustainable use of ecosystems.

such as the production of food and water; (ii) regulating, such as the control of climate and disease; (iii) supporting, such as nutrient cycles and crop pollination; and (iv) cultural, such as spiritual and recreational benefits.

Table 1.1. KEY DRYLAND ECOSYSTEM SERVICES (C22.2)

Provisioning Services <i>Goods produced or provided by ecosystems</i>	Regulating Services <i>Benefits obtained from regulation of ecosystem processes</i>	Cultural Services <i>Nonmaterial benefits obtained from ecosystems</i>
■ provisions derived from biological productivity: food, fiber, forage, fuelwood, and biochemicals ■ fresh water	■ water purification and regulation ■ pollination and seed dispersal ■ climate regulation (local through vegetation cover and global through carbon sequestration)	■ recreation and tourism ■ cultural identity and diversity ■ cultural landscapes and heritage values ■ indigenous knowledge systems ■ spiritual, aesthetic, and inspirational services
Supporting Services <i>Services that maintain the conditions for life on Earth</i>		
■ soil development (conservation, formation) ■ primary production ■ nutrient cycling		

Source: UNEP MA 2005.

More people in drylands than in any other ecosystem depend on ecosystem services for their basic needs. Crop production, livestock and dairy production, growth of fuelwood, and construction materials all depend on plant productivity, which in drylands is constrained by water availability (UNEP-MA, 2005(b): 4). Measurement of persistent reduction in the capacity of ecosystems to supply services has generally provided an operational way to quantify land degradation and desertification; the point will be further addressed below.

Drylands are not uniform, however. They differ in the degree of water limitation they experience. Moreover, precipitation totals alone do not suffice to define aridity because their significance can only be established relative to temperature and potential evapotranspiration. Over the years, a number of approaches to measure aridity have been put forward. Classical approaches focus on climatic elements and their relationships to vegetation zones; index approaches apply standard formula to define boundaries of the arid zone in terms of annual precipitation and temperature; and water and energy balance concepts portray the relationship between precipitation and evapotranspiration. Categorization of drylands can be made either along the lines of these aridity

measurements or in a descriptive way with respect to dominant vegetation forms (Herrmann and Hutchinson, in Johnson et al., 2006: 11-14).

Following the UNEP terminology, four dryland subtypes can be recognized – dry sub-humid, semiarid, arid, and hyper-arid – based on an increasing level of aridity or moisture deficit⁴. The UNCCD, although excluding the hyper-arid dryland from its consideration, adopted the classification presented in the *World Atlas of Desertification*, which is based on a global coverage of mean annual precipitation and temperature data collected between 1951 and 1980, to obtain a global coverage of evapotranspiration values. Using index values, the four dryland subtypes can be positioned along a gradient of moisture deficit. Together, these were found to cover more than 6 billion hectares, or 41.3% of Earth's land surface. Dryland subtypes can also be described in terms of their land uses: rangelands, croplands, and urban areas. Rangelands and croplands jointly account for 90% of dryland areas and are often interwoven, supporting an integrated agropastoral livelihood.

Geographically, the world's drylands are found (1) beneath the belt of subtropical atmospheric high pressure zones marked by the Tropics of Cancer and Capricorn (trade wind deserts), (2) in interior drainage basins of the mid-latitudes (continental deserts), (3) on the lee sides of mountain ranges (rain shadow deserts) and (4) on the western edges of continents affected by cold ocean currents (coastal deserts) (Herrmann and Hutchinson, in Johnson et al., 2006: 11-12). Drylands are not spread equally between poor and rich countries: 72% of the global dryland area occurs within developing countries and only 28% within industrial ones. Consequently, the majority of dryland peoples live in developing countries (that is, from 87% to 93%, depending on how the former Soviet Union countries are categorized), and only 7–15% reside in industrial countries (UNEP-MA(a), 2005: 626).

Aridity, drought, land degradation: what words for what phenomena?

Aridity and drought, both natural features of drylands, need to be differentiated from one another, though in practice they are often confused. While similar in their appearance, they operate at different time scales. Aridity is a long-term climatic phenomenon and a defining physical characteristic of drylands. Drought is an episodic feature, which can affect any environment, though is also a frequent and defining characteristic of drylands.

⁴ The level of aridity typical for each of these subtypes is given by the ratio of its mean annual precipitation to its mean annual evaporative demand, expressed as potential evapotranspiration. The long-term mean of this ratio is termed the aridity index.

Aridity entails not only a permanent rainfall deficit, which is connected also to other climatic phenomena such as strong insolation, elevated temperatures and high evapotranspiration, but is also manifest in a sparse and discontinuous vegetation cover and poorly evolved soils. In addition to a general rainfall deficit, aridity is associated with a high variability and unpredictability of precipitation. Drought, in contrast to aridity, is an episodic short-term phenomenon. Defined as a period of below average rainfall, it is not restricted to any particular environment, but is particularly associated with drylands, since they tend to experience more variable climate conditions (Herrmann and Hutchinson, in Johnson et al., 2006: 14-15).

Much like aridity and drought, the often-linked pair of terms desertification and land degradation describe phenomena which can be similar in appearance, but are different in scope and time scale. While desertification is restricted to drylands, land degradation can affect any environment. Desertification implies irreversibility at long time scales, whereas land degradation has also been used to describe short-term processes. Land degradation and desertification are complex phenomena which can be attributed to a number of causes. The contributions of natural, notably climatic, and human factors are difficult to disentangle, and blame has alternately been assigned to anthropogenic and natural processes.

According to “official” definitions crafted by the United Nations Convention to Combat Desertification (UNCCD), desertification is “land degradation in arid, semi-arid, and dry sub-humid areas resulting from various factors, including climate variations and human activity”⁵, and land degradation is defined as “the reduction or loss of the biological and economic productivity and complexity of terrestrial ecosystems, including soils, vegetation, other biota, and the ecological, biogeochemical and hydrological processes that operate therein ... resulting from various factors including climatic variations and human activities” (*ibid.*).

The UNCCD basically defines “land” by its primary productivity service (“‘land’ means the terrestrial bio-productive system”) and “land degradation” as an implicit loss of provision of this service (“‘land degradation’ means reduction or loss... of the biological or economic productivity”). It could be observed that the definition of biological productivity and economic benefit therefore depends on users’ priorities. Transforming woodland to cropland may decrease biological productivity and degrade the economic benefit of

⁵ UNCCD (1994): Convention to Combat Desertification. p. 4

firewood production, for example, but increase the economic benefit of food production. With respect to the mechanisms of land degradation, changes in the properties of the land (soil, water, vegetation) do not correspond linearly to changes in productivity. Loss of productivity can also be attributed to non-human-induced factors such as rainfall variability and human factors such as low labor input. Thus a range of interacting variables that affect productivity should be addressed in order to assess land degradation objectively and unambiguously.

However, given that different disciplines involved in the study of drylands also rely on different indicators to define them (e.g. botanic and climatic), finding an unambiguous and commonly agreed on definition and classification of drylands is hard to achieve. Without a scientifically robust and consistent baseline of desertification, identifying priorities and monitoring the consequences of actions are seriously constrained. The reasons for this will be reviewed in the following paragraphs.

The Monitoring and Assessment Challenge

As it results clear at this point, estimates for total global dryland areas affected by desertification vary significantly, depending on the calculation method and on the type of land degradation included in the estimate. Despite the importance attributed to desertification, only three exploratory assessments of the worldwide extent of land degradation are available: the UNEP/GLASOD report (“Global Assessment of Human-induced Soil Degradation”, 1990); research work from Dregne and Chou in 1992; and a more recent assessment prepared for the MA by Lepers *et al.* in 2003.

These assessments of land degradation all have major weaknesses. GLASOD was based on expert opinion only, with variability in quality and quantification; it reported that 20% of the drylands (excluding hyper-arid areas) were suffering from human-induced soil degradation. Dregne and Chou’s assessment was based on secondary sources, which they qualified as follows: “The information base upon which the estimates in this report were made is poor. Anecdotal accounts, research reports, travelers’ descriptions, personal opinions, and local experience provided most of the evidence for the various estimates” (UNEP-MA(b), 2005: 19). This study reported 70% of drylands (excluding hyper-arid areas) to be suffering from soil and or vegetation degradation. The most recent assessment by Lepers *et al.* has the benefit of combining multiple sources of information but it did not have complete spatial coverage and was limited to 62% of drylands, with some areas relying on a single data set. That assessment was qualified as “an exercise of

compilation of data from a variety of sources, with different scales, legends, definitions, etc. We have done our best to standardize but, still, there are many inconsistencies and gaps". The report estimated that 10% of global drylands (including hyper-arid areas) are degraded (UNEP-MA(b), 2005: 19).

Given the limitations and problems with each of the underlying data sets, the need for a better assessment is underscored. The actual extent of desertified area may lie between the figures reported by GLASOD and the 2003 study. That is, some 10–20% of drylands may already be degraded. Based on these estimates, the total area affected by desertification is between 6 million and 12 million square kilometers. It follows that based on the total number of people threatened by desertification, this ranks among the greatest contemporary environmental problems (UNEP-MA(b), 2005: 7). The global number of people who live on lands determined by Lepers (2003) as degraded is about 20 million, much lower than the 117.5 million people living on lands defined as degraded by GLASOD (UNEP-MA, 2005(a): 637). However, the higher the aggregation level in each of these study approaches, the more problematic each of the methods becomes, either because of upscaling issues or because of questionable extrapolations and generalizations (*ibid.*).

It follows that understanding the location-specific interaction of socioeconomic and biophysical processes is critical. In fact, some earlier explanations of irreversible desertification may have their origin in two fallacies: first, the time scale over which desertification evaluations are conducted is often too short, and reliable long-term extrapolations cannot be obtained. It is also important to consider continuous changes in dryland processes resulting from climatic factors and human intervention. Second, the spatial scale of assessments is either too large to effectively capture local phenomena or too local to provide a regional or global perspective. For example, desertification assessments rely on evaluation of national, regional, and continental soil surveys, on models of carrying capacity, on experimental plot studies, on expert opinion, and on nutrient balance models. While each of these methods is sound in its own right, the findings cannot simply be scaled up or down in time and space (UNEP-MA(b), 2005: 5).

Today, integrated use of satellite-based remote sensing or aerial photographs with ground-based observations can provide consistent, repeatable data on vegetation cover, but continuity of observations is required to account for the high inter-annual variability of dryland ecosystem services. Valid interpretation of remote sensing imagery for desertification requires careful calibration and validation against ground measurements

(such as vegetation cover, biological productivity, evapotranspiration, soil fertility, and compaction and erosion rates). Access to affordable satellite imagery, particularly in developing countries, is critical for effectively undertaking such integrated use (UNEP-MA(b), 2005: 19).

In 2009, the UNCCD first scientific conference delivered some recommendations on ways to improve the global monitoring and assessment of dryland degradation to support decision-making in land and water management. The issue will be addressed in the second part of the dissertation.

Changing understandings of ecological dynamics

As it has been analyzed, many definitions of land degradation refer to a loss of the biological and/or economic resilience and adaptive capacity of the land system. This approach emphasizes the maintenance of basic system functions. Following this view, a “desertification paradigm” affirmed itself as the mainstream approach to analyze land degradation issues affecting drylands, which has started to be challenged only recently. In fact, degradation estimates based on carrying capacity concepts can be somewhat misleading, once a deeper understanding of the dynamism of human responses are taken into account. It is important to note that the paradigm has its root in the environmental sciences (soil science, agronomy, and to a lesser degree forestry) and is strongly influenced by Malthusian thinking on the population-environment nexus. The premise of the desertification paradigm is that land users, in response to their needs, increase pressure on the land in unsustainable ways, leading to decreasing productivity and a downward spiral of poverty and further degradation.

However, there is increasing evidence that these negative feedback loops need not occur. Rather, dryland populations, building on long-term experience with their dynamic environments as well as active innovation, can stay ahead of degradation by intensifying their agricultural practices and enhancing pastoral mobility in a sustainable way. In these scenarios, population growth does not lead to degradation and poverty but to a Boserupian-style⁶ intensification and improved environmental management (UNEP-MA(a), 2005: 646).

⁶ Esther Boserup (1965) analyzed different trends of technological development of countries and continents over centuries and concluded that population growth provides the impetus for technological change. She found that the increased need for food and land scarcity caused by population growth was commonly countered by an intensified use of technologies in which more labor was used in conjunction with land improvement technologies.

There is, for example, a mounting body of evidence that in the African Sahel region, once considered the centerpiece of the desertification paradigm, land users are achieving higher productivity by both intensifying and improving their land management practices – capitalizing on improved organization of labor, more extensive soil and water conservation, increased use of mineral fertilizer and manure, and new market opportunities (Scoones 2001; Tiffen and Mortimore 2002; Olsson et al., 2005). These studies have shown that yields per hectare and food output per capita and livestock sales are largely determined by policies and market opportunities within the constraints posed by the natural environment. Scoones and Toulmin (1999: 38, quoted in Tiffen and Mortimore, 2002) examined national data on maize yields in seven SSA countries, from 1961 to 1997, reporting that “Rather than observing a secular downward trend, a high level of variability around a relatively low mean yield is commonly seen”.

A regression analysis on Burkina Faso data found that “long-term average rainfall contributes more than 80% of the explained variance, while pressure on natural resources in terms of population or livestock density is not significant at all” (Niemeijer and Mazzucato, 2002, p. 26). Overall, these studies argue that population growth is not the overriding driver of either desertification or sustainable land management, but that the impact of population growth is largely determined by the rate of change and the way in which people adjust to their increasing numbers, mediating the effect on the environment and their own well-being through adaptations of local informal institutions, technological innovations, income diversification, and livelihood options and strategies.

The message of the “counter-paradigm” is that the interacting direct and indirect drivers combined with the local situation can create a range of different outcomes and that raising a general alarm based on questionable scientific evidence in the end is much less effective than identifying individual problem areas where other socio-economic or political complicating factors have led to an unsustainable local response. It is also crucial to distinguish between problems originating from the natural harsh and unpredictable conditions of dryland ecosystems and problems caused by unsustainable management of the environment, since the remedies will often be different (UNEP-MA, 2005(a): 646-647).

In conclusion, it shall be acknowledged that, from an ecological point of view, arid and semi-arid environments function primarily as non-equilibrium systems, unlike their more humid counterparts. While equilibrium systems are associated with the concepts of

“succession” and “climax vegetation”⁷ and served as the ecological paradigm for much of the twentieth century, non-equilibrium systems are governed by variability and unpredictability and have offered an alternative to equilibrium models for the past quarter century. Non-equilibrium systems possess a limited capacity for internal regulation and greater potential for transit among multiple equilibrium points. Vegetation dynamics are driven by stochastic climatic events, which result in discontinuous and possibly non-reversible changes. Ecological thresholds, once crossed, offer transition into a number of other possible equilibrium states, distinguished on the basis of community features, plant growth forms or soil properties (Herrmann and Hutchinson, in Johnson et al., 2006: 13).

Due to periodic extreme climatic conditions, drylands were once assumed to be especially fragile in the face of disturbances. However, the view that their evolutionary response to variability increased the resilience of dryland species has become widely accepted (e.g. Mortimore, 1998). This implies that drylands might have a high potential to recover from natural disturbances and might also respond to rehabilitation efforts better than initially believed.

In view of the importance of non-equilibrium dynamics in arid and semi-arid ecosystems, the concept of “degradation” appears in a different light. In non-equilibrium thinking, moving from one state to another does not necessarily imply degradation. Rather, different states might hold different opportunities for different uses. Reduction of productivity, especially economic productivity, is relative and depends on specific evaluations and objectives, i.e. how this productivity is going to be used and to what end (Herrmann and Hutchinson, in Johnson et al., 2006: 17).

In conclusion, no simple relationship between human activity and desertification/land degradation can be established. At short time scales, both natural and anthropogenic stresses can produce similar effects on dryland ecosystems, which makes the relative contributions of drought and human-induced land degradation virtually impossible to separate. Moreover, natural and anthropogenic factors are interrelated in complex ways, which adds to the difficulty of disentangling them. Only the irreversibility of desertification can be used to distinguish it from the relatively short-term effects of

⁷ This model argues that there is a ‘climax’ vegetation for each particular site that is determined by climate and soil. In this model, when the climax is perturbed (i.e. changes in use; variability in climate), vegetation is pushed back in the successional sequence to a sub-climax. Within this model, vegetation of a particular site at a particular time is viewed as point along a linear trajectory from poor (or very disturbed) to excellent (or climax) (Herrmann and Hutchinson, 2005).

drought, which require long time scale observation to arrive at valid conclusions. Especially in drylands, which often occupy marginal positions with respect to national economic and political centres, reliable long-term records on climate and land use are scarce for many countries, so that to date the tension between anthropogenic and natural causes in the desertification concept remains largely unresolved (Herrmann and Hutchinson, in Johnson et al., 2006: 18-19).

Land degradation, drought and desertification are linked through complex cause-and-effect relationships, which may be widely quoted but only partially understood. The realization, which has evolved over the past 30 years, that the climatic and ecological functioning of drylands is fundamentally different from that of their more mesic counterparts, has only slowly been integrated into the discussion about desertification and land degradation and has rendered some established concepts obsolete.

Notwithstanding the complexity, imprecision and methodological opacity of desertification, the concept has for more than half a century been a formal institutional process, a topic of occasional journalistic attention and the subject of an international convention and of environmental policy in individual nation states; in fact, commitment to the concept of desertification went always well beyond the scientific community. From its inception to the present, desertification research has been targeted at and deeply involved in the formulation of public policy: that is why it is paramount to analyze the political and institutional dimensions of the evolution and affirmation of the concept.

I.3. From the origins of the term to the negotiation of the UNCCD

The birth of the desertification issue: the colonial phase

The emergence of the questioning of the existence and extent of the phenomenon of African desertification date back to the beginning of the XX century, under the impulse of colonial engineers in Western Africa. Henry Hubert, a naturalist who became chief of the Western African meteorological service in 1924, was the one to firstly warn the scientific community and colonial authorities against the threat of African “desiccation”. In 1917⁸ and 1920⁹ he published two articles on the subject, emphasizing the idea that the phenomenon was ancient, but the trend had been accentuated over the latest 20 years (Gagnol, 2011: 2).

While some observers attributed the causes of the “advancement” of the desert to the negative actions of the nomadic populations, the geologist Chudeau estimated that the phenomenon was indeed a temporary worsening linked to climatic oscillation, and that there was no reason to be alarmist, given that « *une expérience plusieurs fois séculaire montre que toujours et partout aux vaches maigres ont succédé les vaches grasses* »¹⁰. It can be seen that the terms of the scientific and political debate on desertification are thus already established, even before the apparition of the specific term.

The notion of “desertification” makes its appearance later under the plume of the zoologist Louis Lavauden (1881-1935). Inspector of water and forestal resources in charge in Tunis, he took part in 1925 in a trans-Saharan expedition and published in 1927, the journey concluded, an article where he developed his interpretation of the meaning of the neologism of desertification. He considered that it was too early at the time to reach the conclusion of worsening climatic conditions, estimating that it was more precise to speak about a « *dessèchement de l'Afrique du Nord, et en particulier du Sahara, en donnant à ce mot dessèchement le sens précis de diminution progressive des eaux superficielles et souterraines* ». In his interpretation, he held responsible the African populations: « *la désertification, si j'ose dire, est purement artificielle. Elle est uniquement le fait de l'homme. Elle est d'ailleurs relativement récente, et pourrait être encore combattue et enrayerée par des moyens humains fort simples* »¹¹ (Gagnol 2011: 2).

⁸ Hubert H. (1917), *Progression du dessèchement dans les régions sénégalaises*. Ann. de géo.; 143: 376-385.

⁹ Hubert H. (1920) *Le dessèchement progressif en Afrique occidentale*. Bull. du com. d'ét. hist. et scient. de l'A.O.F.; oct.-déc.: 401-467.

¹⁰ Chudeau R. (1921), *Le problème du dessèchement en Afrique occidentale*. Bull. du com. d'ét. hist. et scient. De l'A.O.F.; 4: 353-369, quoted in Gagnol (2011: 2).

¹¹ Lavauden L. (1927), *Les forêts du Sahara*. Rev. des eaux et forêts; 6/7: 265-277/329-341.

The debate on desertification progressively scaled up after that Stebbing published a series of articles¹² of catastrophic nature in 1935. They ultimately led the English and French governments to organize a joint mission (the first of its kind during the colonial period) in order to verify on the field, namely in Niger and Nigeria, if the alarmist stances concerning the “desert encroachment” had concrete foundation. The resulting observations confuted such a hypothesis.

It can be seen that the debate that took place under the colonial rule focused on the extent and effects of desertification, as well as on the causes: was desiccation an ineluctable climatic phenomenon, generalized at the continental scale, so as to lead to the “advancement” of the desert? Was the phenomenon linked to climatic fluctuations whose movements were accelerated by anthropogenic action, but that were reversible? Were the agro-pastoral techniques – judged archaic and predatory – the only causal factor, as affirmed by the partisans of the “man-made desert”¹³? Although these questions remain partially unresolved today, they especially played a role in alerting the public opinion and the colonial authorities; it may even be said that they contributed to the raising of a “transnational” awareness of the necessity to protect the African environment at an international scale (Gagnol 2011: 3).

International policies specifically aimed at combating desertification eventually took off during the 1950s. In August 1949, an expert group of people coming from seven countries convened to Lake Success in the USA: under the auspices of UNESCO, the International Technical Conference on the Protection of Nature recommended that particular attention shall be paid to the African environment. Back at the time, Africa was then the only continent which gave scope to the creation of environmental policies concerted at the continental level. The internationalization of the environmental problematic was justified by the specificity of the tropical nature of the continent and by the danger represented by desertification (Gagnol 2011: 4). As it was mentioned, this meeting was followed by the establishment of the UNESCO Arid Zone Programme, launched “to establish a comprehensive system of international research laboratories under the United Nations”. Although furthering development was purportedly one of the Programme's overarching objectives, its activities focused primarily on basic research, whose topics included arid

¹² Stebbing E.P. (1935), *The Encroaching Sahara: The Threat to the West African Colonies*. The geo. J.; 6 : 506-519; *The threat of the Sahara* (1937), J. of the Royal Afr. Soc.; 145: 3-35; *The Man-made desert in Africa* (1938), Afr. affairs; 146: 1-40.

¹³ Stebbing E.P. (1938), *The Man-made desert in Africa*. Afr. affairs; 146: 1-40.

zone hydrology, plant ecology, human and animal ecology, and plant-water relationships (Long, 2000: 59).

During the 1950s and 1960s, increasing rainfall patterns were observed in the Sahel and the theme of desertification seemed to fade away notwithstanding the publication in 1949 of the wide synthesis work by Aubréville¹⁴. It is interesting to note that several works¹⁵ published in the 1960s and 1970s seemed to openly ignore the issue, while in the 1980s, desertification regained centrality as an alarming environmental concern (see for example *Pour l'Afrique, j'accuse*¹⁶, which was published in 1986). In fact, a number of events coincided in the 1970s to elevate the desertification issue in the minds of the world community. First, the countries of the Sahel entered a phase of severe drought in the late 1960s after a period of good rainfall years in the 1950s. This in itself was not an unprecedented situation for the people in the Sahel, who had experienced droughts before. But in every Sahelian country except Ethiopia, this drought came after a long period of colonial rule, with all the effects on traditional societies and economies which this entails. In most cases the countries of the Sahel had experienced a steadily declining rainfall during the first few years after independence in 1960, to be faced with a severe drought before their tenth birthday.

The effect of the drought was human suffering on a huge scale, primarily because these countries had much larger populations than in the past, but also because in many cases traditional food production had been sidelined by colonial authorities in favor of crops grown for western markets. The other clinching factor was the state of the global communications media, which meant that for the first time in history pictures of starving fellow human beings could be beamed straight into the living room of the western developed world. The pictures were caused not only by drought, the concerned audiences in the west were told, but also by an insidious environmental plague known as desertification (Thomas and Middleton 1994: 23).

¹⁴ Aubréville A. (1949), *Climats, forêts et désertification de l'Afrique tropicale*. Paris: Société des éditions géographiques maritimes et coloniales.

¹⁵ Climate change or environmental degradation are not mentioned in the classic work by De Planhol et de Rognon about arid tropical areas (Planhol X. de, Rognon P. *Les zones tropicales arides et subtropicales*. Paris: Armand Colin, 1970), where the term "desertification" never appears. The same applies to the well-known pamphlet by Dumont "*L'Afrique noire est mal partie*", published in 1962.

¹⁶ Dumont R. (1986), *Pour l'Afrique, j'accuse. Le journal d'un agronome au Sahel en voie de destruction*. Paris: Plon.

The international undertaking of the desertification problem

In 1977, the first convention on desertification was held in Nairobi (UNCOD), and attended by official representatives of 95 countries, 50 UN offices and a myriad of NGOs (Thomas and Middleton 1994: 2). The Conference identified the key problem as a chronic process of land degradation in which people were playing a pivotal role. Although there was much debate as to the relative importance of human action and a lack of rainfall, drought was seen primarily as a catalyst which exposed the deleterious effects of long-term degradation by people. Four prime causes of desertification in the Sahel were identified: over cultivation, overgrazing, deforestation and mismanagement of irrigated croplands.

With the mission to agree on a plan of action (PACD) to combat desertification and to bring it under control by the year 2000, UNCOD can perhaps be seen as the birth of the modern age for desertification. Desertification was for the first time framed beyond local settings, and it was seen as a global threat; it was becoming a problem of increasing international significance, a problem that some authorities and politicians felt only the United Nations, with a remit for global agendas, could properly face. If UNCOD did not represent the beginning of clarity regarding what desertification is, what causes it and where it occurs, then it was certainly the start of a period when the word entered popular, political and scientific vocabularies as a term for a major environmental problem.

Although a number of attempts were made to create functional institutions to implement the spirit of the PACD – and although there was a brief spurt of interest in the issue when disaster struck Africa yet again in 1983-84 – chronic disinterest in the rest of the world, institutional turf battles, and a failure to raise funds for required action doomed the PACD, which has been described as “abject failure” (Najam, in Johnson et al., 2006: 61).

The nonbinding PACD not only served as the precursor to the legally binding UNCCD but also laid down the foundation of the latter’s substance and architecture. The lessons from its demise were clear: if anything meaningful was ever to be done about desertification, the issue would have to attain higher international profile as a truly global issue, it would have to be dealt with within a legally binding framework, and a dependable and sufficient supply of funds would have to be procured. The African countries launched a move to actualize such an agreement in the run-up to the 1992 UN Conference on Environment and Development (UNCED), the Earth Summit at Rio de Janeiro. After intense deliberations at the conference about whether there should be a global treaty on desertification, the Earth Summit agreed that there should indeed be one, and the UN General Assembly (UNGA)

established the Intergovernmental Negotiating Committee on Desertification (INCD) in late 1992.

After a first organizational session, held in January 1993 in New York, the INCD met five times between June 1993 and June 1994 to prepare the text of the convention, officially titled the “United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa”. The convention, and its four regional annexes¹⁷, was adopted at the fifth session of the INCD at Paris in June 1994 and opened for signature later that year. It was then decided that the committee would continue to meet until the requisite number of ratifications were received; a total of six additional meetings were held in this interim period, with the last meeting held in August 1997, right before the first COP. The convention legally came into force when the 50th instrument of ratification was formally received (from Chad) on 26 December 1996. Post-negotiations COP were held annually from 1997 to 2001. It was decided that subsequent COPs would be held biannually, interchanging with sessions of the CRIC (Najam, in Johnson et al., 2006: 61).

In the following paragraphs, a brief negotiating history of the UNCCD is proposed in the perspective of providing some insights on why the convention is structured the way it is, and to shed light on the negotiating process itself, which was manifestly driven by the South and saw uncommonly intense South-South bargaining within the context of a global environmental negotiation (Najam, in Johnson et al., 2006: 59), while also revealing intense North-South differences which considerably affected the operationalization of the legal instrument, as it will be explained in the second part of the dissertation. In fact, even more than most other global environmental negotiations, North-South differences have remained a key fault line in UNCCD deliberations. Given that desertification was an eminently Southern issue, it should not be surprising that the developing countries were much more engaged and animated in these negotiations. If by the end of the negotiations the major South-South differences had been meaningfully resolved, the most important North-South tensions remained unresolved.

A tortured negotiating process

Even though the main proponents of UNCED were from the North, UN resolution 44/228, which set the mandate for the conference, gave a special place of prominence to the issue of desertification, on the insistence of African members of the G77 (the coalition consisting

¹⁷ The four regional annexes are for Africa, Asia, Latin America and the Caribbean, and Northern Mediterranean. A fifth annex for Central and Eastern Europe was added at the fourth conference of the parties (COP).

of approximately 130 developing countries, plus China). The Resolution called upon UNCED to “accord high priority to drought and desertification control”; it gave more importance to desertification than to, for example, climate change, biodiversity, or deforestation. Despite this mandate, the UNCED preparatory process paid little attention to desertification; the first three of the four UNCED Preparatory Committee meetings (PrepComs) all but ignored it (Najam, in Johnson et al., 2006: 62).

The issue came up at the fourth UNCED PrepCom in March 1992. Consensus on most elements of what eventually became Chapter 12 of Agenda 21 (*Managing Fragile Ecosystems*) was achieved relatively easily, but the African demand for a desertification convention was fiercely resisted by the North. The U.S., in particular, was fearful that a desertification convention would trigger calls for additional funding under the Global Environment Facility (GEF) and doubted, along with the European Community, the validity of desertification as anything more than a cluster of local environmental issues. However, what began as a straightforward North-South discussion soon took a different twist, when the Europeans decided to dangle the desertification convention as a carrot to induce the South to agree to a forest convention (Najam, in Johnson et al., 2006: 62).

The European Union’s move not only drove a wedge within the G77 but also split Africa, since a number of African countries were endowed with large tracts of tropical forests, such as Cameroon and Gabon, and clearly opposed to a forest convention that would focus principally, if not solely, on tropical forests. Ultimately, the entire G77 ended up standing behind the African demand for a convention while Africa decided not to give in on deforestation. The turning point came when the United States agreed to support the African proposal and the pressure became too strong for the European community to resist.

Six months later, UNGA adopted resolution 47/228 establishing the Intergovernmental Negotiating Committee on Desertification (INCD). Various reasons have been suggested for why the U.S., and later the European Community, changed its position even though they clearly had not been convinced of the need for such an instrument. These include the following: the U.S. decision was meant to deflect the negative publicity it was getting at home for its other positions at UNCED; the North gave in because it wanted to keep the African and other developing countries engaged in the Rio process; also, the African group had indicated throughout PrepCom IV and UNCED that it would insist on a desertification convention before approving any other UNCED document – an African defection could therefore have jeopardized all other Rio agreements (Najam, in Johnson et al., 2006: 63).

The issue of granting priority to Africa became the defining issue at INCD-1. After the first INCD session ended on a discordant note, at INCD-2 members ultimately agreed that the convention and the regional instrument for Africa would be finalized by June 1994 and the other regional instruments would be negotiated in the interim period pending the entry into force of the convention. This solution allowed Africa to retain its sense of priority while ensuring for the other regions that the convention would remain global in character and would enter into force with multiple regional instruments in place (Najam, in Johnson et al., 2006: 65).

While approaching the peculiar nature of the text to be adopted, it was observed that North-South divergence occurred in discussions regarding the *global* nature of desertification. Southern countries supported use of the word global because it emphasized the importance of desertification throughout the world and not only in Africa. Northern states opposed the term global, believing that it suggested northern responsibility for desertification's solutions. Furthermore, industrialized countries feared that emphasis on desertification as a global problem linked to climate change would enable anti-desertification projects to access new funding via GEF (Long 2000).

The discussion on financing also began at INCD-2 and it became clear that the North had no inclination to agree to any additional and systematic sources of funds. At the third, fourth, and fifth sessions of the INCD, the most compelling debates were on state obligations and financial provisions. For what concerns the first debate, tensions were relatively rapidly overcome by arriving at a compromise language according to which all parties were encouraged to provide "voluntary" assistance – with no specific reference to *developed* and *affected country* obligations. North-South financial tensions proved more difficult to resolve. The lesson from the 1977 UNCOD was that no international effort could ever be implemented without a stable and significant source of independent funding. For developing countries, this was the ultimate test for the UNCCD, yet every attempt they made towards this goal was shot down: seeking a new GEF funding window for desertification, seeking a new fund for desertification, and seeking the actualization of the North's Rio commitment of 0.7 percent of gross national product (GNP) for official development assistance (ODA).

The G77 felt strongly that the convention and the regional annexes would be pointless without a further mobilization of new and additional financial resources and the establishment of an independent financial mechanism that was capable of mobilizing such resources in the effort to combat desertification and mitigate the effects of drought. On the

other hand, the developed countries felt strongly that the affected countries should bear the primary responsibility for combating desertification (Chasek 1997: 167). With nothing else to hold on to, the INCD-5 chair's contact group (eight members each from north and south) began to concoct the concept of something called a "global mechanism" that would be charged with promoting actions leading to the mobilization of funds. Although there was no clear sense of how it would do so, or any enthusiasm for whether it would be able to, this was the one idea the contact group had to offer when time ran out. Technically, the deadline for concluding the negotiations had already passed at midnight on 17 June, but frantic negotiations continued on the elements of the financial compromise. It was in the early hours of 18 June that the G77 announced to be on board (although a number of its members had reservations). The final plenary meeting ended delivering the result of a compromise-laden convention that seemed to leave just about all parties seriously unsatisfied with at least some of its elements (Najam, in Johnson et al., 2006: 66-67).

Some conclusions can be drawn: unlike many previous environmental negotiations, the INCD was characterized by economic interdependence rather than ecological interdependence. Developed countries held the purse strings to the financial and technical assistance that the developing countries needed. Thus, even though developing countries represented the larger of the two primary coalitions, with greater voting power, the OECD group of countries formed an economic veto coalition that had the power to influence the course of the negotiations (Chasek, 1997: 157). Accordingly, the UNCCD was a case where, for the first time, the South was calling for a treaty resisted by the North. The North had been far more successful in this blocking coalition role because the balance of power in terms of resources and expertise was so heavily tilted in its favor. In its unfamiliar role as regime leader, the South was no longer able to retreat to the comfortable position or simply adopting a reactive strategy. The entire debate of financing was indicative of the G77's inability to convince the U.S. and EU to adopt the South's preferred options (Najam, in Johnson et al., 2006: 69).

Successive "interim" INCD meetings ended in deadlock, and it was decided to pass on the most contentious issues – those related to the GM, the permanent secretariat, and the composition of the COP bureau – to the first COP. Not surprisingly, the G77's search for a well-defined and well-endowed GM proved futile. Arguably, the North-South polarization at the end of the interim phase was more acute than at the end of INCD-5. The failure to raise the profile of either the Convention as a whole or of the GM raised doubts about how seriously desertification was taken as compared to issues such as biodiversity or climate change. This sense of being treated like a second-class convention has become a

continuing theme since then (Najam, in Johnson et al., 2006: 69).

The first conference of parties, held in Rome, Italy, in September 1997, dealt mostly with the question of funding activities under the Convention. It had already been decided that the Global Mechanism was to be managed by the Rome-based International Fund for Agricultural Development (IFAD). A memorandum of understanding between IFAD and the CCD secretariat was signed. There was friction while deciding the functions of the CCD secretariat, which put forward to the parties a medium-term strategy for its functioning. The proposal found support from the G77 and China, but was opposed by most developed countries. They felt the secretariat should restrict itself to a facilitating and coordinating role for parties, whereas the strategy suggested an operational role. The developing countries saw this as an attempt to reduce the secretariat to its lowest common denominator, which would tend to confirm that the CCD was a “poor relative” of the other Rio conventions (Sharma 1999).

It will be seen in the second part of the dissertation how the tensions that have been highlighted were reflected in the implementation process of the UNCCCD, fraught with difficulties. Ambiguities that were not resolved in the negotiating process had serious impacts on the mandates of the institutional bodies of the Convention, as well as on COP decisions that have often failed to provide clearer guidance.

II. The shift in the object, focus and coverage of the UNCCD

II.1. The major “problems” of the Convention to Combat Desertification

In the early and mid 2000s, a nearly unanimous voice had emerged already in the development policy circles, which acknowledged the generally poor and deceptive UNCCD's record in fostering its objectives through the implementation of effective strategies, measures, and policy environments necessary to reverse drylands land degradation.

At the time, it was recognized that “limiting factors” had somewhat prevented an optimal deployment of the Convention thus far. These were mainly identified in a suboptimal performance of the Convention's governance structure and institutions, in a lack of financial predictable mechanisms, and in the lack of a clear, feasible workplan. Although more than 190 countries had ratified the Convention, it was acknowledged that progress was hard to discern at that stage, and in some countries disillusionment was becoming evident because the expected international support was slow to materialize (Holtz, 2007: 5).

At the same time, problems pertaining to the insufficient advocacy and awareness among various constituencies started to arise, with authors noting that the Convention and the problems relating to desertification were still receiving insufficient attention: in fact, whereas it was widely taken for granted that humankind had to protect the ozone layer and biodiversity, the relevance of saving land from degradation and erosion did not appear to be adequately recognized. This led observers to affirm that the UNCCD failed to excite the sort of political and public interest enjoyed by the other two “sister conventions”, since “in the general architecture of global environmental governance, the UNCCD is not a cornerstone” (Holtz, 2007: 6), nor has it succeeded in “grabbing the imagination of the western public” (Toulmin 2001).

Pessimistic views were expressed according to which “the international convention model was not the right strategy for addressing drylands development”, because “it tied people into a series of COP performances which demonstrated no linkage with real problems on the ground” (Toulmin 2001). Overall, in the early 2000s the rationale for taking a convention approach to a problem such as desertification was questioned by different

standpoints on the basis that policymakers had failed to acknowledge that it was not “a global environmental problem of the same sort as biological diversity or climate change” – desertification remaining in fact a poorly understood concept which involved too broad a set of issues, with few clearly identifiable culprits, or tidy solutions.

All things considered, the first half of the 2000s represented a moment in which the very future of the Convention was questioned – providing the input for a series of internal assessments that led, a few years later, to a renewed strategic framework, as it will be explained in the following section. But first, in order to understand the changes that have led to a “renewal” of the UNCCD, it is important to identify the main issues that were at the foundation of the operational difficulties – issues that were tentatively addressed in the perspective of finding a common ground on which to reinstate a climate of confidence and cooperation.

Institutional setting and operational difficulties

It was noted that the performance of the main two Convention institutions, the secretariat and the Global Mechanism (GM), “has been suboptimal in many respects, for example in facilitating and stimulating implementation activities” (Holtz, 2007: 13). Performance appeared to be impeded, among other factors, by the difficulty in clearly delineating the two institutions’ respective mandates, resulting in institutional tensions.

The institutional and political dynamics of the UNCCD regime have affected its implementation since its entry into force in 1996. In many ways, the UNCCD is the product of a fragile compromise and several of the tensions that existed before the convention was signed remained perceptible afterwards and continue to plague the intergovernmental process and the concrete implementation of the UNCCD. These tensions originate both in perceptions and facts; there is no doubt that a set of problems arises from confusion on the focus and scope of the UNCCD. In fact, it is considered by many as a developmental convention rather than an environmental one, which leads to some confusion over the key UNCCD constituencies. Also, the inter-sectoral and participatory nature of the UNCCD sometimes conflicts with the objective to define cost-efficient strategies and approaches to address a focused set of issues. This has affected the concrete implementation of the convention at the country level.

The UNCCD permanent secretariat, which has been located in Bonn, Germany since January 1999, is established in article 23¹⁸ of the Convention. Its key function is to service the sessions of the COP and its subsidiary bodies; this includes a multitude of tasks, ranging from the preparation of substantive documentation to logistical arrangements for the sessions. The secretariat can thus be described as service provider, facilitator, catalyst and coordinator; however, it is clearly not an implementing agency with concrete anti-desertification projects.

Like all other international treaty secretariats, the UNCCD secretariat was set up first and foremost to administer the continuous negotiations process of the parties and to help them implement the agreements they have committed to by ratifying the convention. In 2003, the UNCCD secretariat was run by a staff of 67 directed by the executive secretary of the convention. Since the post was established in 1999, it was occupied by Hama Arba Diallo of Burkina Faso until 2007, who had hitherto served as the head of the secretariat of the Intergovernmental Negotiating Committee on Desertification from 1993 to 1994 and the Geneva-based interim secretariat that served the first COPs (from 1994 to 1998). Mr. Gnacadja from Benin occupied the post from 2007 to 2013; in October that year, Monique Barbut was appointed as new Executive Secretary of the UNCCD.

As per art. 23.2(c), the secretariat is expected to play an enabling role for capacity development at local and national levels – at least indirectly. Beyond rather basic functions of providing information materials and background documentation on the UNCCD process, the additional role for the secretariat to contribute to capacity development is inherent in its mandate to facilitate the development of National Action Programmes (NAPs)¹⁹ in affected country parties. In line with the convention, “national institutions and legal frameworks are to be built up and new ones created when needed... Strengthening the capacity of local people to draw up programmes to manage their resources is perhaps the single most important step in constructing a healthier

¹⁸ Article 23.2. The functions of the Permanent Secretariat shall be: (a) to make arrangements for sessions of the Conference of the Parties and its subsidiary bodies established under the Convention and to provide them with services as required; (b) to compile and transmit reports submitted to it; (c) to facilitate assistance to affected developing country Parties, on request, particularly those in Africa, in the compilation and communication of information required under the Convention; (d) to coordinate its activities with the secretariats of other relevant international bodies and conventions; (e) to enter, under the guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; (f) to prepare reports on the execution of its functions under this Convention and present them to the Conference of the Parties; and (g) to perform such other secretariat functions as may be determined by the Conference of the Parties.

¹⁹ Established in article 10 of the Convention, NAPs are the main instrument for implementation of the Convention. They are designed from the bottom up and consider both ecological and societal factors. The NAPs link up with Subregional Action Programmes (SRAPs) and Regional Action Programmes (RAPs).

relationship between people, power and the environment” (UNCCD 1995, 26). To this end, the secretariat is concerned with the empowerment of national Focal Points in affected country parties. Moreover, the officers of the secretariat’s regional action divisions themselves assist national Focal Points in meeting their reporting requirements to the COPs and CRIC by means of providing tailor-made help guides and individual advice (Bauer, in Johnson et al., 2006: 81).

With regard to budgetary requirements, the first COP determined in its Decision 3 that the secretariat must “enjoy the administrative and financial autonomy necessary to ensure efficient servicing of the Convention and of its implementation”. The regular budget for the secretariat to administer the Convention amounted to US\$17 million for the 2004-2005 biennium (Bauer, in Johnson et al., 2006: 77). The “Review of the Management, Administration and Activities of the Secretariat of the UNCCD” submitted by the Joint Inspection Unit (JIU) of the United Nations (2005)²⁰ found that, in terms of financial and human resources, the UNCCD is undernourished as compared with the other two Rio Conventions. In terms of the core budgets the UNCCD lags well behind: its approved budgets from assessed contributions for 2002–2003 (US\$16.2 million) and 2004–2005 (US\$17 million) were about half those of UNFCCC, and also less than those of the CBD. The UNCCD also has less access to voluntary funding than has the UNFCCC, and this can be seen especially in the funding provided for national reporting processes.

Moreover, the programme and budget adopted by the COP at its seventh session for the biennium 2006–2007 has presented a very unfavorable situation, with major negative consequences on the staffing structure of the secretariat and resource requirements for core activities. The Executive Secretary took some drastic measures including the freezing of some key posts, in order to operate within the available resources. Of the approved 43 posts in the core budget some 13 posts were frozen for the biennium. Some of these posts related to administrative services and therefore most of these services were outsourced. Concerning human resource requirements, it was reported that the continuing budget reductions which the secretariat faced as a result of decisions taken at COP 6 for the biennium 2004–2005 and at COP 7 for the biennium 2006–2007 created increasing difficulties in pursuing the core activities of the secretariat, and also posed a high risk of jeopardizing the quality of services required for the implementation of all decisions taken by the Parties (Holtz, 2007: 13).

²⁰ The report was prepared in response to the decision of the COP, at its sixth session, that a comprehensive review of the activities of the UNCCD Secretariat would take place at COP 7 (see JIU/REP/2005/5).

The 2005 assessment report produced by the UN Joint Inspection Unit (JIU) also highlighted that, while the majority of the developing group considered that the activities undertaken by the secretariat were within the mandate, many of the developed group believed that the Secretariat was exceeding its mandate by engaging in implementation activities that amounted to an operational role. As is the case for all the Rio Conventions, the functions of the Secretariat of the UNCCD are set out in very general terms, leaving some room for interpretation. The JIU Review indicated that among the Parties themselves there were quite different views about the appropriate scope of activities under certain functions, particularly those that require the Secretariat to interact with the affected country Parties. The inspectors highlighted that this perhaps stems from different interpretations of the “facilitation” role of the Secretariat – a word that could be interpreted as implying different degrees of proactive involvement. Theoretically, any attempt or action on the part of the Secretariat to promote or make easier the implementation of the UNCCD objectives are within its mandate; however, difficulties arise in defining a clear boundary between a strictly catalytic role and activities that amount to an operational role in implementation, and in practice ambiguity and dissension were reported to surround the facilitation role of the Secretariat (JIU/REP/2005/5, para. 26).

Notwithstanding the financial, advisory and logistical support provided by the Secretariat to affected country Parties in the preparation of their national reports (tasks carried out as effectively as possible given the limited staffing and access to resources), the quality of national reports was an issue that was frequently mentioned. Of course this is a factor which depends not only on the support provided by the Secretariat, but also on the efforts of the reporting governments and their access to financing. In fact, a link can be found between the quality of national reports and the funding that is made available to the affected country Parties for their preparation, which in the case of UNCCD has been very limited. Countries in Africa received some US\$11,000 on average in the first round of reporting in 1999, while for all regions the average was a little over US\$5,000 for each report in the 2002 reporting round. This was in sharp contrast to UNFCCC where the Non-Annex I Parties could receive up to US\$405,000 each from the GEF for the preparation of their national communications (JIU/REP/2005/5, para. 16).

Other observers noted that NAPs did not succeed in presenting sustainable land management as something which underwrites social and economic development and brings important benefits to societies. Instead, NAPs were understood as a solution to a

problem conceived in too narrow a way, one treated separately from socio-economic development or key political issues such as water, migration or security (Smith, 2015: 5). Indeed, this appears to be in sharp contrast with the Convention's approach, which aims primarily at bridging the (then quite distinctive) worlds of environmental and developmental governance. In practice, however, the UNCCD remained almost exclusively confined to the world of environmental governance.

This situation was due to the fact that most UNCCD Focal Points at the country level were located within environmental departments. The convention constituency being composed in great majority of under-resourced, politically marginalized environmental ministries with very limited influence in development planning²¹, it was perhaps not surprising to observe the level of disconnect existing between development agencies facing repeated demands from UNCCD Focal Points for increased funding, and the economic departments in developing countries – which rarely mentioned desertification as a development priority (Johnson et al., 2006: 199). On the other hand, although developed countries have committed to support the UNCCD, they have so far failed to take the lead in helping their developing country counterparts to raise the profile of desertification into development planning. Nationally and internationally, the result is that the money and actions are focused elsewhere, with inadequate commitment to the development objectives of the UNCCD (Falloux et al., in Johnson et al., 2006: 138).

Indeed, NAPs were conceived to serve dual roles, acting as framework for participation and a tool for resource mobilization. In some countries, NAPs have served well in the first role. However, experience shows that they did not serve well as financing instruments. Among the members of the facilitation committee and donors interviewed, there was broad consensus that NAPs are inconsistent in quality, lack scientific foundation, and are without the baseline and indicators needed for monitoring. Frequently NAPs are presented simply as “shopping lists” in which donors have little interest (Smith, 2015: 5). With the level of priority accorded to them at the national level being proportional to the resources which can be accessed, NAPs tended to hit a low ceiling of resource constraints. The result was that NAPs often seem to exist on paper only, a step taken in theory, but never fully applied (Smith, 2015: 5).

²¹ In addition to the lack of adequate links to ministries of finance, agriculture, and other department positioned to influence policies and budgets pertinent to the UNCCD implementation, other factors that contribute to the weakness of UNCCD Focal Points were recognized to be insufficient human and financial resources, high staff turnover, lack of outreach capacity, and general inactivity (Falloux et al., in Johnson et al., 2006: 138).

To sum up, the NAP process has been criticized for failing to do several things, all of them related: involving key decision makers outside environment ministries; integrating desertification programmes into other development strategies and government policies in affected countries (for example poverty reduction strategy papers, PRSPs); and highlighting and justifying funding priorities (Holtz, 2007: 7). These issues have constituted part of the bulk of the “renovating” effort started in 2008, as it will be analyzed in the next section; however, before proceeding, it is important to address the second relevant set of concerns that have influenced the implementation of the Convention.

Funding struggles

It is not a mystery that financial issues have haunted the Convention since its inception (as it was seen in the previous section concerning the UNCCD negotiations). The financial resources made available to the UNCCD could not be described as substantial, neither could they be considered adequate, timely or predictable²². In the early 2000s, it appeared clear that there was a financing gap in the lack of a clear and stable financial commitment to the UNCCD by the developed country Parties. The consequence was that this, in turn, was potentially contributing to a deficient UNCCD prioritization in affected country Parties, which saw little incentive in integrating UNCCD objectives into overall national development plans. As it has been pointed out, “the lack of funding specifically linked to the convention has led to its limited attractions for all audiences. An initiative without cash is doomed to play to an empty house” (Toulmin 2001).

The UNCCD’s financial provisions, including the Global Mechanism (GM), were designed to mobilize, channel and coordinate financial flows to fight poverty and land degradation in drylands. Art. 20.1 of the UNCCD states that “given the central importance of financing to the achievement of the objective of the convention, the Parties, taking into account their capabilities, shall make every effort to ensure that adequate financial resources are available for programmes to combat desertification and mitigate the effects of drought”. Moreover, under article 20.2, the parties commit to “facilitate through international cooperation the transfer of technology, knowledge and know-how” and “explore, in cooperation with affected developing country parties, innovative methods and incentives for mobilizing and channeling resources, including those of foundations, non-

²² In Decision 6/COP.10 it is stated that “since the establishment of the Global Mechanism, progress in mobilizing and channeling of substantial financial resources, including for the transfer of technology, on a grant basis and/or on concessional or other terms, to affected developing countries has not yet met expectations” (Governance and institutional arrangements of the Global Mechanism (ICCD/COP(10)/31/Add.1).

governmental organizations and other private sector entities, ... which increase financing by reducing the external debt burden of affected developing country parties, particularly those in Africa”.

Article 21 contains provisions for the financial mechanisms of the UNCCD. These focus on the mobilization and improved coordination of existing sources with a view to maximize their impact on UNCCD implementation. The Global Mechanism was established under art. 21.4 of the Convention, according to which, “in order to increase the effectiveness and efficiency of existing financial mechanisms”, it shall “promote actions leading to the mobilization and channelling of substantial financial resources [...] to affected developing country Parties”. The GM also seeks to attract and channel investments from innovative financial sources such as climate change funds, private sector operations and micro-finance.

Following decisions by the COP at its first session, the GM was formally established late in 1998, more than two years after the UNCCD came into force; it was decided that the GM would be hosted by the International Fund for Agricultural Development (IFAD)²³. The GM is not an autonomous institution, but is rather a brokering process established within the legal framework of the convention. It is accountable to the COP and its decisions. It used to work closely with its three funding members (IFAD, UNDP and the World Bank) and the other members of its Facilitation Committee, which included the FAO, UNEP, and GEF among others (Falloux et al., in Johnson et al., 2006: 132).

Of course, while assessing the success of the mechanism, the general context of international public aid flows has to be taken into account. ODA, including allocations to desertification-affected countries, stagnated in real terms between 1992 and 2003. The overall share of ODA for desertification-affected countries did not increase in that period, nor had the affected countries realigned their borrowing priorities to reflect UNCCD objectives. Although the UNCCD was designed as an instrument to channel existing funds and mobilise new ones for fighting desertification, it seemed to have had little impact on ODA flows. Moreover, as the international community was turning its focus to poverty

²³ In 2011, by decision 6/COP.10, the UNCCD COP directed the governance and institutional arrangements of the Global Mechanism. The COP noted that “the inconsistencies and contradictions contained in the Memorandum of Understanding between the Conference of the Parties and the International Fund for Agricultural Development regarding the modalities and administrative operations of the Global Mechanism have resulted in lack of oversight, inadequate reporting and accountability by the Global Mechanism” (ICCD/COP(10)/31/Add.1). By decision 6/COP.10, it was decided the transfer of the accountability and the legal representation of the GM from the International Fund for Agricultural Development (IFAD) to the UNCCD secretariat.

alleviation, resources available for agriculture and rural development declined by nearly 50 percent (IFAD 2002, quoted in Falloux et al., 2006: 133). The decrease in financing to rural development included those contributions from the major lending institutions with the exception of IFAD, which focuses exclusively on agriculture and rural development. At the same time, domestic resources allocated to agriculture and rural development fell in several affected developing countries. According to the IMF, between 1990 and 1998 the share of agriculture in government expenditure fell from 6.2 percent to 3.9 percent in Sub-Saharan Africa (Falloux et al., in Johnson et al., 2006: 133).

Ten years after the UNCCD was signed, the expectation that funding would be channeled to rural drylands within the convention framework was not met. The fact that only a small portion of investments made by bilateral and multilateral donors in agriculture, land degradation, drylands rural development, and other desertification-related activities were channelled through the UNCCD framework constituted a persistent weakness for which all UNCCD Parties and partners bore responsibility. Instead of serving as an instrument to coordinate and maximise the impacts of investments in drylands, the UNCCD was at risk of becoming simply an additional legal and institutional layer in sustainable development governance (Johnson et al., 2006: 198).

Funding for UNCCD implementation raised by the GM was documented in the evaluation process undertaken for the second CRIC session and COP-6²⁴: the evaluations showed a predominant focus on public financing for process-related activities rather than on investments in the implementation of NAPs. Between 1998 and 2003, the GM pursued its mission by focusing on three areas: securing direct funding, catalyzing funds through small investments, and providing information to support national-level financing efforts (Falloux et al., in Johnson et al., 2006: 133). From 1998 to 2003, GM revenues totaled US\$16.6 million. Sources included bilateral and multilateral agencies, regional development banks, and the COP's core allocation. Of this total, 68 percent (US\$13.3 million) was granted to client countries both directly and indirectly (through technical assistance), while 32 percent covered GM administrative costs. About 19 percent of the US\$11.3 million was allocated to targeted process or pilot investment financing. This proportion was not sufficient to stimulate more substantial investment financing to implement the convention. Of the US\$11.3 million granted, 49 percent was allocated in small grants to affected countries, 4 percent to strategic initiatives (for example, carbon sequestration and methodologies for desertification monitoring) and the remaining 47

²⁴ JIU/REP/2005/5.

percent for technical advice (such as consultancies to support NAP elaboration) (Falloux et al., in Johnson et al., 2006: 136).

It can be read in the 2009 “Assessment of the Global Mechanism of the United Nations Convention to Combat Desertification”²⁵ prepared by the JIU that in 2005 the GM undertook a change of management and approach to the type of activities envisaged as part of its strategy. Among the changes introduced, it abandoned the approach of small funding and grants, and in 2007 all the remaining small grants were closed. The current management targets larger projects based on the systematic and worldwide development of IFS (“integrated financing strategies”) in eligible countries.

Donor contributions for the period 1998-2008 indicate a significant change of trend in the amount of funds provided, starting from 2005 and coincidental with the change of management and the progressive phasing out of the small-grant projects approach until they were completely eliminated. Overall, the GM received US\$38 million during the period 1998-2008 from a variety of donors, of which more than US\$20 million between 2005 and 2008. It was also noted that in the same period the number of donors had actually decreased, but the amount of the average contribution per donor had increased (JIU/REP/2009/4, para 75).

It is important to highlight that in October 2002 the Global Environment Facility (GEF)²⁶ general assembly designated land degradation as a new focal area, with the primary focus on desertification and deforestation. The new focal area enabled the GEF to enhance its support to the implementation of the UNCCD. It was further decided in 2003 that the GEF would become a financial mechanism of the UNCCD. In 2003, the GEF adopted the Operational Programme on Sustainable Land Management (OP-15) to operationalize financing of the land degradation focal area.

It was observed that this brought higher levels of financing to the convention, although insufficient to meet demand from affected countries. Of course it also had symbolic significance given the initial lack of GEF support benefiting the UNCCD as compared to the

²⁵ In accordance with decision 3/COP.8 (paragraph 27), the Conference of the Parties (COP) of the United Nations Convention to Combat Desertification (UNCCD) at its eighth session requested the Joint Inspection Unit (JIU) to conduct an assessment of the Global Mechanism (GM) and submit it to the ninth session of the COP.

²⁶ Established in 1991, it unites 182 member governments – in partnership with international institutions, nongovernmental organizations, and the private sector – to address global environmental issues. Today the GEF is the largest funder of projects to improve the global environment.

other Rio conventions – a situation that was interpreted by many as lack of willingness on the part of the donor community to support the objectives of this instrument of global governance. It remained the fact that the level of funding allocated to the UNCCD under the third GEF replenishment was significantly lower than that of its fellow conventions of the CBD and UNFCCC (Johnson et al., 2006: 196).

In May 2010, the GEF instrument was amended by its Fourth Assembly: since then, under the fifth replenishment of the GEF Trust Fund (2010-2014) and its Land Degradation Focal Area (LDFA), the GEF directly contributes to implementation of the Convention.

GEF – UNCCD latest updates

Although the LDFA strategy and the UNCCD 10YSP Framework have different time frames, the UNCCD website reports that “there are strong linkages at multiple levels”, with the LDFA providing the framework for eligible countries to utilize GEF resources for implementing the UNCCD and investing in sustainable land management (SLM) activities. The funds are intended to play a catalytic role towards the implementation of the UNCCD 10-year Strategy, mobilise additional investments for SLM from other sources, scale-up SLM innovations, and mobilise baseline knowledge and tracking tools for the long-term monitoring and assessment of the impact and trends of land degradation.

The total amount allocated to the LDFA in the GEF-6 replenishment is US\$431 million, which will be invested through country allocations under the GEF System for a Transparent Allocation of Resources (STAR) and focal area set-asides. The STAR will account for US\$346 million (80.3%) of the LDFA resources allocated to 144 eligible countries. The remainder of US\$85 million (19.7%) will be utilized for specific programming as set-aside funds (<http://www.unccd.int/en/about-the-convention/GEF/Pages/default.aspx>).

On a different note, an issue brought up by funders and UNCCD stakeholders was that the lack of knowledge and reliable information on desertification constituted a hurdle in the process of mobilizing and coordinating resources for UNCCD implementation. In order to resolve this knowledge gap, the GM has developed a comprehensive source of baseline information on desertification-related funding sources, trends in financing, projects, background information on the convention and its operations, and a variety of related technical and policy reports (Falloux et al., in Johnson et al., 2006: 137).

As highlighted in the first part of the dissertation, in the section concerning the scientific basis of the phenomenon of desertification, the information base of the UNCCD is weak when compared to other instruments of environmental governance, including the CBD and the UNFCCC. In the past, successful environmental governance instruments were established in solid scientific grounds that facilitate the measurement of progress through indicator; this was the case with the Vienna Convention for the Protection of the Ozone Layer and the UNFCCC in particular. Such a science-based approach facilitates consensus building, while uncertainties about the scientific basis of the desertification process led to conflicting definitions of the concept, which opened the door for the politicization of discussions.

In turn, this made the marketing of the UNCCD more difficult within the donor community, which is increasingly interested in investing in projects that deliver visible, quantifiable results. UN agencies and bilateral funders have been reluctant to adopt the concept of desertification in part due to the difficulty in elaborating an operational definition that would facilitate its division into easily measurable and quantifiable indicators. The inclusion of socioeconomic aspects in the definition of desertification has also contributed; in summary, the concept of desertification itself is partly responsible for the weak formulation of the operational strategies Convention, which in turn makes it more difficult to engage multilateral and bilateral agencies in the fight against poverty and land degradation in rural drylands; (Johnson et al., 2006: 199). It will be seen in the following section how these factors were addressed through a strategic shift in the effort of adopting a more operational, effective and result-oriented approach.

On its part, it shall be noted that the GM has strived for achieving its mandate on resource mobilization by reshaping its working modality – building upon a sort of “constructive ambiguity” (JIU/REP/2009/4, para. 57) contained in the vague definition of means and targets of the GM. The Mechanism was thus reported to have become “a sort of specialized think tank undertaking substantive research on environment-related topics – not only on desertification but on several cross-cutting issues such as climate change, biodiversity, forestry, trade and sustainable development, among others” (*ibid*, para. 61).

When analyzing the type of activities undertaken by the GM, the JIU inspectors concluded that financial aspects, as such, constituted only one part, and not the most important one, within the areas of expertise the GM had developed (JIU/REP/2009/4, para 62). It was also observed that, in evolving over the years, the respective mandates of the UNCCD

secretariat and the Global Mechanism, instead of being complementary and synergetic have increasingly been overlapping and duplicating, as the result of different factors: in particular, lack of definition of boundaries and division of labour in their respective mandates, lack of a single vertical chain of command to enforce coordination in the definition and implementation of their respective work programmes, and the absence of regular mechanisms ensuring coherence and integration instead of overlapping and duplication (JIU/REP/2009/4, para. 35).

In practice, both institutions performed similar functions with no ex-ante mutual consultation. They intervened at the local level, provided technical support work, and aimed to raise funds to secure the implementation of their activities, beyond those secured by the core budget. This generated confusion among the Parties in identifying the relevant institutional counterpart to be addressed when submitting their requests for technical assistance (JIU/REP/2009/4, para. 37). Such misunderstanding has strongly contributed to the gradually prevailing perception of a “bicephalic” convention under which the support provided remains ad hoc, erratic and unpredictable, lacking an overarching programmatic agenda for implementation (JIU/REP/2009/4, para. 96).

The 2008 – 2018 Strategy has certainly injected a new impetus to the Convention by providing a vision for the next 10 years, but it has also failed to avoid the existing grey areas in the definition of respective responsibilities while delineating its operational objectives; and in some cases it may even have added to the uncertainty by confusing yet further the assignments of both the GM and the secretariat (JIU/REP/2009/4, para. 46). It is now time to proceed to analyze the content of the Strategy.

II.2. The renewed strategic framework of the Convention

It was seen in the previous section that after a decade of implementation, limiting factors were preventing an optimal deployment of the Convention. Chief among these factors were insufficient financing compared to its two Rio sister conventions, a weak scientific basis, insufficient advocacy and awareness among various constituencies, institutional weaknesses and coordination, and difficulties in reaching consensus among Parties. Of course, all these factors are interrelated, influencing one another; we will move on to see how the renewed framework of the 10-year strategic plan (2008 – 2018) of the UNCCD has tried to address them in order to break the political and institutional deadlock.

Besides inherent weaknesses that originated in the inception phase of the UNCCD, it has to be noted that the decision to adopt a new strategy to enhance the implementation of the Convention was matured in the context of a changed international environment – one that had evolved considerably since when the convention was firstly negotiated. In fact, the policy environment had changed since the Earth Summit in Rio, firstly with the adoption of the Millennium Development Goals (MDGs), then with stronger commitments for climate change mitigation and adaptation, prospects of global agricultural trade liberalization, and growing numbers of environmental refugees and migrants stimulating further research on the impacts of poverty and environmental degradation (ICCD/COP(8)/16/Add.1, para. 3-4).

The scientific environment also evolved with the work of the Millennium Assessment (MA) on dryland ecosystems, which contributed to improved understanding of the biophysical and socio-economic trends relating to land degradation in global drylands, and their impacts on human and ecosystem well-being. The MA also contributed to mapping out gaps in data and knowledge on dryland ecosystems and people (ICCD/COP(8)/16/Add.1, para. 5). The financing environment also changed profoundly, with the Global Environment Facility (GEF) becoming a financial mechanism of the Convention in the early 2000s, and official development assistance (ODA) flows increasing again after a decade of stagnation. Resources for rural development and agriculture however continued to decline, with donors refocusing their financing strategies to support country-driven priorities, mainly based on Poverty Reduction Strategy Papers (ICCD/COP(8)/16/Add.1, para. 6).

The ten-year Strategy

Against this background, at COP8, held in Madrid in September 2007, the Parties to the Convention adopted the 10-year strategic plan and framework to enhance the implementation of the Convention for 2008-2018 ("The Strategy"), which set four strategic objectives to guide the action of Convention's stakeholders. The vision behind the 10 year Strategic plan is outlined in the same as follows: "The aim for the future is to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas in order to support poverty reduction and environmental sustainability" (Decision 3/COP.8, para. 8). The "strategic objectives" (contained in paragraph 9) intended to guide the actions of all UNCCD stakeholders and partners in the period 2008–2018, in order to contribute to achieving the above-mentioned vision, are the following:

1. To improve the living conditions of affected populations;
2. To improve the condition of affected ecosystems (through sustainably enhancing land productivity and other ecosystem goods and services in affected areas);
3. To generate global benefits through effective implementation of the UNCCD;
4. To mobilize resources to support implementation of the Convention through building effective partnerships between national and international actors (that is, increased financial, technical and technological resources are made available to affected developing country Parties).

The Operational Objectives (enounced in Decision 3/COP.8, para. 11) which are to support the attainment of the vision and Strategic Objectives of the Strategy are:

1. Advocacy, awareness raising and education;
2. Policy framework (that is, "to support the creation of enabling policy environments at all levels for promoting solutions to combat desertification/land degradation and mitigate the effects of drought");
3. Science, technology and knowledge ("To become a global authority on scientific and technical knowledge pertaining to desertification/land degradation and mitigation of the effects of drought");
4. Capacity-building ("To identify and address capacity-building needs to prevent and reverse desertification/land degradation and mitigate the effects of drought");
5. Financing and technology transfer ("To mobilize and improve the targeting and coordination of national, bilateral and multilateral financial and technological resources in order to increase their impact and effectiveness").

According to The Strategy, "Successful implementation of this strategic plan requires a strengthening of the core servicing, advocacy and agenda-setting and representation functions of the UNCCD secretariat – with commensurate capacity and resources – in order to support Parties, the COP and the subsidiary bodies of the Convention in fulfilling their respective roles. The secretariat has a lead role for operational objective 1 [on advocacy, awareness raising and education] and specific outcomes of operational objectives 2 and 3 [on policy framework and science, technology and knowledge, respectively] as well as a support role in other operational objectives [on capacity building and financing and technology transfer]".

The current results-based framework for the secretariat is presented in its 2014–2017 workplan. The overall aim of the secretariat remains to service the COP and its subsidiary bodies in a manner that enables well-founded decision-making and successful action in advancing the implementation of the UNCCD. In order to efficiently carry out its tasks, the secretariat shall build and further strengthen partnerships with programmes and institutions that have proven capacities in the areas covered by the UNCCD, such as UNDP, UNEP, WMO, FAO, IFAD, UNESCO and IUCN.

Particular attention is paid to increase the political momentum by actively promoting the UNCCD, notably by linking scientific findings with political decision-making, and supporting a growing global commitment to halt land degradation and rehabilitate already degraded land. As it will be seen, this has been particularly linked with the activity of moving toward global target-setting by providing inputs to the evolving global development agenda (as expressed in the framework of the SDGs), highlighting the importance of building national/regional land degradation “neutrality” and recognizing the critical role of land and soil in climate change adaptation and mitigation. Another primary set of issues for the Secretariat is individuated in improving conditions for national implementation: in fact, access to information, up-scaling of good practices, and opportunities for capacity-building are deemed critical for progress in implementing the UNCCD at national level.

In the light of these changes, the UNCCD’s operating strategy recognizes “the need for Parties to realign their NAPs.” Guidelines for NAP realignment stipulate that NAP implementation, monitoring and evaluation, and access to funding be supported by planning that provides baseline information, sets targets and a timeframe, specifies the range of activities envisaged to reach the targets, and identifies indicators to measure

progress. Furthermore, aligned NAPs should embrace grassroots governance (whether territorial or local) and seek grassroots ownership, as well as being integrated, or “mainstreamed”, into the national development process (UN, 2011: 112).

It was observed that the adoption of the Strategy had something of a revitalizing effect which carried over to the round of meetings held to advise states in aligning their NAPs with the Strategic Plan. Alignment meetings appeared to be a trigger for fresh involvement of governmental and civil society stakeholders; however, these benefits are also reported to be offset by a “lack of clarity among many countries on the nature, purpose and benefit of NAP alignment” and by concern that “too much emphasis is placed on alignment rather than on practical implementation” (Smith, 2015: 5)

In fact, it appears that progress with alignment has been slow – by the end of 2012, only 11 countries had aligned their NAP to the Strategy. It is reported that 80% of state parties were expected to align NAPs by the end of 2015, but this may constitute a relatively important outcome since “Currently, the main concern is that less than 60 per cent of NAPs are actually being implemented”²⁷ (Smith, 2015: 6).

At the same time, the 10YSP and framework to enhance the implementation of the Convention have paved the way for the evolution of a new monitoring and assessment process within the UNCCD. The review and monitoring system is now based primarily on the derivation of performance indicators to measure progress against the operational objectives of the Strategy, and impact indicators to measure progress against the strategic objectives contained in national, sub-regional and regional profiles (UN, 2011: 115).

At its eleventh session the COP adopted a refined set of six progress indicators (decision 22/COP.11) which will be used for the first time during the second leg of the fifth reporting process in 2016. The set includes two indicators for each strategic objective²⁸; the COP also adopted an approach towards measuring progress, based on a broader use of readily available global data sources. This approach attempts to link global level reporting

²⁷ This leaves open to question how much progress has been made since an earlier analysis affirming that “states may well have signed the Convention and translated it into domestic law, but do not draw any material implications from this fact” (Smith, 2015: 6).

²⁸ Strategic objective 1 (To improve the living conditions of affected populations): SO1-1: Trends in population living below the relative poverty line and/or income inequality in affected areas; SO1-2: Trends in access to safe drinking water in affected areas. Strategic objective 2 (To improve the condition of affected ecosystems): SO2-1: Trends in land cover; SO2-2: Trends in land productivity or functioning of the land. Strategic objective 3 (To generate global benefits through effective implementation of the UNCCD): SO3-1: Trends in carbon stocks above and below ground; SO3-2: Trends in abundance and distribution of selected species.

with monitoring efforts undertaken at the national/local level; it is open to both quantitative and qualitative information and aims at putting an emphasis on stakeholder participation. The UNCCD website reports that the adoption of the set of progress indicators and the related monitoring and evaluation approach is the result of an iterative process of refinement which started in 2010, included testing through pilot exercises conducted at the national level, and was brought forward by an ad hoc Advisory Group of Technical Experts (AGTE) which presented its recommendations at COP11 (<http://www.unccd.int/en/programmes/Science/Monitoring-Assessment/Pages/Impact-Indicators.aspx>).

Chasing/creating political will: the LDN impetus

If the Strategy aims for political will and effective implementation to be mutually reinforcing, besides action promoted at the technical level on monitoring and evaluation, and through helping states to focus plans on clearer goals and reporting on outcomes, there is a more general political level of intervention promoted by the UNCCD's bodies which is worth analyzing. In fact, achieving the Convention's objectives was especially a matter of stimulating "demand" for effective action on desertification/land degradation – making it as a priority, defending and elevating the status of the Convention and those tasked at national and international level with its implementation (Smith, 2015: 9 – 10).

Underprioritized in comparison to the other Rio Conventions by affected and donor states alike, with NAPs too often treated as a document that states are obliged to produce with few tangible benefits on the ground – it was felt that a set of converging elements such as a (possible, back then) SDG on the topic of land degradation, the broader trend to focus strategies on concrete targets and the coming on-stream of a methodology and evidence base relating to the economics of land degradation, all contributed to potentially make 2015 a year of opportunity.

Mobilizing effective action from key decision-makers depended on asserting desertification/land degradation as a priority in itself, and as something central to other priorities. It was to be presented as something with economic and political value, with both benefits of action and costs of inaction. The UNCCD Comprehensive Communications Strategy (CCS) aimed to mobilizing "the political clout [that the Convention] needs to reach its objectives; making the Convention known will facilitate the involvement of crucial actors; highlighting the importance of the Convention may enhance resource mobilization and donor relations at all levels; [and] clarifying the objectives of the

Convention could advance the political drive needed to ensure its success” (Smith, 2015: 16).

The SDGs, Land Degradation Neutrality and the UNCCD

The concept of land degradation neutrality was first introduced as “zero net land degradation” in a proposal tabled at Rio+20. This goal or target would be achieved by: (a) managing land more sustainably, which would reduce the rate of degradation; and (b) increasing the rate of restoration of degraded land, so that the two trends converge to give a zero net rate of land degradation (UNCCD, 2013: 12).

The future we want (UNGA Resolution 66/288), adopted in the context of the United Nations Conference on Sustainable Development (Rio+20), called upon Member States to, inter alia, strive to achieve a land-degradation-neutral world in the context of sustainable development. On 25 September 2015, world leaders at the United Nations adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) and 169 associated targets. Of particular relevance for the UNCCD is Goal 15, which urges countries to “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”. More specifically, Target 15.3 – the target championed by UNCCD and partner countries – was also adopted. This reads, “By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world” (<https://sustainabledevelopment.un.org/focussdgs.html>).

The indicator proposed for SDG target 15.3 is the “Proportion of land that is degraded over total land area”. The three sub-indicators are: (i) land cover and land cover change; (ii) land productivity; and (iii) carbon stocks above and below ground. While reporting should be based primarily on official national data, global available data sets and Earth observations can be used to fill data gaps. The UNCCD, in collaboration with relevant partners, affirms to have taken the lead in compiling data for global reporting since the sub-indicators are already part of the UNCCD country reporting mechanism, while also providing support to build capacity in 80+ countries for implementing and monitoring SDG target 15.3.

The LDN Target Setting Programme became operational in spring 2016: through this programme the Global Mechanism is supporting countries in their national voluntary LDN target setting processes. The main objective of the programme is to enable country Parties to define national baselines and to identify voluntary targets and measures to achieve LDN by 2030 (GM – UNCCD, 2016).

Moreover in 2015 the Global Mechanism has signed an agreement to structure the first global fund dedicated to achieving Land Degradation Neutrality – the LDN Fund, which aims at creating a new investment territory: land rehabilitation and avoided degradation. The LDN Fund will be launched in December 2016. The fund should provide a coordination platform for blended finance and is expected to be set up as a Public-Private Partnership among institutional investors, impact investors, development finance institutions and donors committed to supporting LDN. It should be structured as a privately managed layered fund intending to generate returns for investors in line with their respective risk/return profiles (<http://www.global-mechanism.org/content/impact-investment-fund-land-degradation-neutrality>).

In other words, selling the Convention would have been easier if it acquired greater international cachet. Momentum undeniably built around the concept of Land Degradation Neutrality (*see box above*) as the “content specification” to the Strategy, a means of “taking the strategic objectives to the next level of precision and measurability” (Smith, 2015: 18). Including a “land degradation neutral world” in the UN vision of *The Future We Want* was clearly a result of the advocacy of the Secretariat and other stakeholders of the UNCCD (Chasek et al., 2015). Its formalization as a target of an SDG was thought to help make the Convention more practical, engendering greater confidence that progress was possible. If NAPs risked to become an end in themselves, a worthless technical exercise, they had the chance to reposition themselves as a means to the end of Land Degradation Neutrality.

Although not binding, an SDG target relating to LDN was seen as representing the global goal that the UNCCD had missed and help to mobilize attention in a way comparable to the rallying effect on the UNFCCC of a narrative of a 2 degree cap on temperature increases. Achieving an LDN target in the SDGs would raise the profile of desertification/land degradation and help the UNCCD better position itself vis à vis the two other Rio Conventions. Within the secretariat, LDN was felt to have had a reinvigorating effect and was “expected to be more successful than previous and current efforts to effectively draw the attention of people and the international community to the significance of healthy land and soil to human beings and to the risks brought about by land degradation” (Smith, 2015: 18).

In fact, the narrative that has been built since 2012 (and that is still unraveling in new publications) has powerfully shaped a new framing of the whole land degradation issue. The imperative to create demand for action on desertification/land degradation relies on a

strong focus and sense of urgency: publications have this forceful, “scandal-creating” rhetoric in their reference to “exploding needs”, “waste(d) land: lost capital”, and “worldwide impacts: no immunity”, among others. Land degradation neutrality and sustainable land management are positioned as solutions both at an existential level – “a future in harmony with nature” – and in terms of immediate socioeconomic value: “increas[ed] yields, enhanc[ed] resource flows” and sustainable land management as a “natural insurance policy” (Smith, 2015: 16).

The narrative of “land degradation neutrality”

In recent years the notion that storylines or narratives have a profoundly structuring effect on development policy and programming has become influential (Roe 1991; Leach and Mearns 1996). Narratives can be seen as highly programmatic cause-and-effect stories that are strongly compelling – they shape perceptions of a problem and subsequently exert a strong pull on the behavior of individuals and groups (Keeley and Scoones, 2000: 6).

For a schematic analysis of the axes around which the LDN narrative is built, the following three thematic issues were taken into account: firstly, the argument according to which **action is urgent**, namely because of the “global synergies” that make land centrally important at a global extent:

“At this stage, we are losing around 12 million hectares of land each year. We need to stop this critical loss and turn this trend around. Literally speaking, the health and productivity of the ground that we stand on will determine the future prosperity and security of humankind” (UNCCD, 2015: 3).

“Two billion hectares of productive land are degraded worldwide. This is an area larger than South America or twice the size of China, and 500 million hectares of this is abandoned agricultural land. We continue to degrade another 12 million hectares of productive land every year. Land degradation has significant impacts on societies and economies, as it leads to food insecurity, carbon emissions, biodiversity loss, increased pests, reduced availability of clean water, and increased vulnerability of affected areas and their populations to climate change. Today, the pressure on land has reached such a critical point that serious doubts have been raised as to the capacity of land to meet the demands of a growing population” (The Global Mechanism, 2016).

“By 2050, it is expected that a population of 9 billion will increase the demand for food by 70% globally and by up to 100% in the developing countries [FAO 2011]. Continued land and soil degradation will further imperil food and water security, particularly as climate change reduces water availability in the rain fed agricultural regions. ... The world’s cultivated soils have lost between 50-70% of their original carbon stocks. Some of these make up the world’s estimated 500 million hectares of abandoned agricultural land that serve no productive or ecological purpose” (UNCCD, 2014: 10).

“An estimated 135 million people will be at risk of being displaced by land degradation over the coming decades, due to water shortages and reduced agricultural output. In sub-Saharan Africa alone, some 60 million people are expected to move from ‘desertified’ areas to northern Africa and Europe by 2020, and this figure is highly likely to increase out to 2045. At the same time, growing urban unrest could pose major security challenges with the potential for country-wide repercussions” (UNCCD, 2014: 10).

The Malthusian argument of the ever increasing “pressure” exercised by a growing population on finite resources is one of the oldest narratives underlying the soil fertility crisis, as it was highlighted in the first part of the dissertation, in the section dealing with the changing understandings of ecological dynamics. This “food-gap” narrative can be seen as especially linked to a set of deeply held assumptions and beliefs about rural development, food security and agricultural development in Africa. These narratives are entrenched as intellectual and organizing principles, shaping judgments and behavior (Keeley and Scoones 2000: 8) because they represent a world-view that is simple, powerfully intuitive and widely held.

The narrative crisis of environmental degradation was for long explained by negative trends in agriculture, population and natural resource management coming together in an alarming “nexus” which in itself sets off further rounds of poverty increase and environmental degradation (Keeley and Scoones, 2000: 9) – the “vicious cycle” of degradation often invoked in academic and scientific studies about desertification, not least UNEP’s MA (UNEP, 2005(a): 645). It was seen in the first part of the dissertation how a great deal of the interpretations related to the Sahelian “desertification” crisis that resonated in policy environments since the 1930s could actually not be defensible

anymore at the conclusion of the twentieth century, when it was ascertained that “Existing data do not support the claim that the African Sahel is a desertification hotspot” (Lepers et al. 2005: 122).

Narratives are sustained by the pervasive scientific theories on which they are based – and perhaps, they survive even when the “theories” themselves are overcome and new scientific knowledge is produced, as it is the case with narratives of desertification and the concept of ecological “carrying capacity”. What appears evident is that a storyline centered on complex interrelations among ecological, meteorological and social factors would have much less appeal – and could not be proposed by the UNCCD with the same emotional and “scandal-creating” tone calling for urgent intervention. As it will be further explored in the final part of the dissertation, this leads to the conclusion that several aspects that have informed the decade-long process of framing of the “mirage” of desertification on flawed premises, are currently being replicated in the context of the supposedly “new” framework of land degradation neutrality.

The second axe around which the LDN narrative is built is one of **cost-effectiveness** of intervening, compared to the costs of inaction:

“Currently the cost of land degradation reaches about US\$490 billion per year, much higher than the cost of action to prevent it” (UNCCD 2013, 2nd scientific conference).

“The Economics of Land Degradation initiative estimates that the adoption of sustainable land management policies and practices could deliver up to US\$ 1.4 trillion in increased crop production worldwide. The returns on investment from ecosystem restoration are also high – 50% for tropical forests, 20% for other forests, 42% for shrublands, and 79% for grasslands over a 40 year time period. With the global population expected to hit 9.5 billion by 2050, cultivating these benefits is essential” (ELD initiative, 2013).

“For example, restoring only 12% of degraded agricultural land could boost smallholders' incomes by US\$ 35-40 billion per year and help feed an additional 200 million people annually within 15 years. It could also increase resilience to drought and water scarcity, and reduce greenhouse gas emissions by nearly 2 GtCO₂-e per year” (UNEP-UNCCD 2015).

This part of the narrative that quantifies the benefits of preventing degradation and/or of rehabilitating land is essential to present a business model for interventions which has both environmental and socio-economic benefits, such that decision-makers “see land as an issue which can unlock other development priorities” (Smith, 2015: 16).

Finally, the third axe of the narrative points to the **simplicity** of solutions proposed – easily achievable and that provide benefits for all:

“Land degradation neutrality is a simple but revolutionary idea that can connect the dots between most global goals and targets. It is a commitment to avoid degradation, to move towards sustainable land management and at the same time to massively scale up the rehabilitation of degraded land and soil. It may come to redefine our relationship with the nature. It is the simplest response to climate change action, food, energy and water security, forced migration and resource-driven conflict. By safeguarding life on land, we deliver for all, life on Earth [...] LDN is a simple idea and a powerful tool. At its core are better land management practices and better land use planning. It can help us secure economic, social and political resilience and opportunity for million” (The Global Mechanism, 2016).

“Solutions are at hand. A concerted global effort to halt and reverse land degradation, restore degraded ecosystems and sustainably manage our land resources is essential. Sustainable land management (SLM) practices, such as agroforestry and conservation agriculture, can boost yields and prevent future land degradation. Land rehabilitation and ecosystem restoration activities can also help recover productive capacity and other important services affected by mismanagement”.

“By restoring soil health on these degraded lands, we would not only increase food production but could potentially sequester between 1-3 billion tons of carbon – equal to 1/3 of annual CO₂ emissions from fossil fuels¹² – and at the same time avoid further emissions from deforestation and wetland destruction” (UNCCD, 2014: 10).

To sum up, and to provide an indicative explanation of the processes underlying the “development narrative”, it is firstly important to acknowledge that large-scale planning activities, such as land restoration policies, needs large-scale simplifications (Roe 1991). These simplifications have the logical structure of a storyline, with a crisis scenario at the beginning, a central section outlining the problem and its causes, and a final section

defining a range of interventions. They are partially fictional, and could not be otherwise, in order to make sense in the huge variety of contexts in which they are applied. It was observed that narratives are useful in bypassing paralysing uncertainty, mobilizing political consensus and economic resources for making necessary action possible (Kratli 2013). In fact, these “policy narratives” provide both a diagnosis and a set of measures and interventions. They define a problem, explain how it comes about, and show what needs to be done to avert disaster or bring about a happy ending. They often gain validity despite (or even because of) the fact that they frequently simplify complex issues and processes; this is what makes them appealing.

The following section will analyze how this discursive phase is paramount to the whole process of policymaking, and how narratives of desertification, and successive counter-narratives, have contributed to frame different undertakings of the issue.

The harnessing of the political momentum gained by UNCCD through the LDN target was officially sanctioned during the twelfth session of the Conference of the Parties (COP12), held in Ankara in October 2015. The COP agreed on a definition of LDN as “a state whereby the amount and quality of land resources necessary to support ecosystem functions and services and enhance food security remain stable or increase within specified temporal and spatial scales and ecosystems”. In the same occasion, the COP acknowledged that SDG target 15.3 *is a strong vehicle for driving implementation of the UNCCD* and endorsed a working definition of LDN; the Conference also noted that a significant proportion of land degradation occurs *beyond* arid, semi-arid and dry sub-humid areas; it invited all countries to formulate voluntary targets to achieve LDN; and finally instructed the UNCCD, “as the lead organization for Desertification, Land Degradation and Drought (DLDD)” to take initiative to seek cooperation to achieve SDG target 15.3, including providing “guidance for formulating national LDN targets and initiatives”; and facilitating “the use of the UNCCD indicator framework as a contribution to the monitoring, evaluation and communication of progress towards the national LDN targets”.

II.3. Reading through the Convention's strategic shifts

In this section, a wrap-up analysis is proposed of the evolution of desertification as an international policy issue, along with the institutional dynamics that have shaped the narratives underlying it. The aim is to provide, by linking all the arguments that have been made in the previous sections, a chronologically comprehensive assessment of the evolution of the attempts made by the international community to deal with the phenomenon – and consequent proposed solutions – while at the same time framing the review in the context of broader discourse analysis approaches and policy processes. The review is meant to propose a conceptual background through which to frame and understand the very recent shifts in the UNCCD focus and coverage, which have been articulated around the concept of Land Degradation Neutrality.

It is argued that this “change” in approach can be positioned along a “tradition” of different, often contrasting framings of the problem which, rather than emerging from improved understandings of science and nature, arose from interactions linking the creation of scientific knowledge with the formation of international environmental institutions (Long, 2000). In fact, it is suggested that the assumptions and worldviews embedded in international institutions were translated into varying perceptions of the desertification problem across different policy eras.

The framing of desertification through history and its implications

In the first part of the dissertation, it was seen how changing perceptions of drylands degradation (desertification) were articulated through twentieth century intergovernmental policies. Between the 1930s and 1990s, these policies reflected markedly different ideas regarding the nature of the problem, its causes and its remedies. Over the same period, a number of intergovernmental initiatives have sought to alleviate the perceived menace of desertification – with relatively scarce success. Part of the difficulty in finding coherent solutions is to be found in the fact that attempts at desertification policymaking have not consistently built on one another, but have reflected instead markedly different interpretations of what desertification is, how it happens, and who or what is responsible for it. In order to understand this complex, non-linear evolution and some of the reasons why dryland problems have proved so resistant to policy remedies, it could be useful to examine the linkages between international governance systems and changing knowledge and perceptions of arid regions (Long, 2000: 11).

Along the same lines of analysis, notions of progress that stem from an idea of science as an autonomous provider of ever improving knowledge about environmental phenomena are to be challenged: in fact, several works on policy processes and the interrelation between knowledge, discourse and practice have pointed to the evidence that it is problematic to assume that research is a neutral and objective exercise in gathering “correct” evidence that will make a positive difference – as it would be implicitly suggested by a “linear” understanding of policy making²⁹ (IDS, 2006: 7). Casting aside the linear, rational policy model in favour of the complex and messy processes by which policy is understood, formulated and implemented, within a range of actors involved – scientists, donors, politicians, NGO staff, farmers and others – allows to understand why policies take particular shapes, within enabling or constraining power dynamics (IDS, 2006: 8 – 9). In other words, this type of analysis aims at challenging the perceptions of environmental problems narrowed over time to a set of widely held perceptions of what constitute causes of and appropriate responses to these forms of degradation. The topic of desertification is even more conceptually challenging, since science and policymaking for such a problem have not followed the same trajectory (Long, 2000: 16), as it was for example the case with the problem of ozone’s layer depletion or climate change.

In order to address the evolution of knowledge and perceptions of arid regions, linked to changing international governance systems, desertification politics can be schematically analyzed through the succession of four major periods (Long, 2000): the first is the “colonial era”, which begins in the early 1920s, when claims of an advancing Sahara desert first appeared. It was seen how the colonists saw dryland degradation as a national problem, arising largely from the ignorance of African natives and amenable to natural resource policies and adoption of European farming practices³⁰. The Stebbing controversy of the 1930s, with its roots in French colonial botany of the previous decades, took place at a time when France, having recently completed the conquest of the Sahelian countries, was setting up and seeking to justify a large and highly centralized natural resource management bureaucracy on the French metropolitan model. The assumption that local herders and farmers had such inefficient systems of land use that they were destroying the land was a convenient one at such a moment; colonial authorities’ stand on this issue had implications for the scope and nature of policy measures. In fact, their features reflected

²⁹ The traditional and highly stylised model of policy-making views it as a linear process in which rational decisions are taken by those with authority and responsibility for a particular policy area. This approach views policy-making as involving a number of stages that lead to a decision (IDS, 2006: 7).

³⁰ According to reports of the time, a shifting cultivator would fell and burn a track of forest and farm the land with minimal maintenance effort. Once crop yield began to diminish, he moved on to another track of forest to repeat the same process (Long, 2000: 18).

the capabilities and priorities of the institutions that dominated the policymaking process: the problem framing (allegedly irrational land use practices on the part of Africans) was compatible with the colonial agenda, not only in its disrespect for local methodologies, but also because solutions included improved coordination among natural resource departments and the introduction of European-style, permanent agriculture (Long, 2000: 42). Moreover, controlling nomads was a serious concern across the French colonial world, and many such programmes in zones of pastoral nomadism were designed specifically to obtain “a reduction in the amplitude of seasonal migrations, the progressive sedentarization of errant populations” (Larrat 1965, quoted in Davis 2016: 212). As a result, in Algeria the nomadic population, which had comprised over 60 % of the total population in 1830, was reduced to only 5 % of the population by the early 20th century; in Tunisia basically all the nomads were sedentarized and in Morocco they were reduced to about 16 % of the population by independence. Davis (in Behnke and Mortimore, 2016: 212) affirms that “by the mid-twentieth century, the vast majority of North Africans had been disenfranchised of their lands, forests and livestock and many were reduced to wage labour and deep poverty”.

The second period of desertification politics begins in the 1950s with the early stages of decolonization in Africa and development of the Arid Zone Research Programme under the United Nations Educational, Cultural and Scientific Organization (UNESCO). The work of UNESCO’s Arid Zone Programme played a major role in depicting drylands as a global phenomenon. These endeavors coincided with a partial de-politicization of dryland research: if studies through the 1930s were heavily tied to the advancement of colonial interests through cultivation of profitable natural resources, “taming” of indigenous populations, and settlement of colonial frontiers, the Arid Zone Programme, under the UN umbrella, framed dryland issues as a primarily scientific issue, thereby de-emphasizing political motivations that had so dominated earlier dryland analyses and interpretations. The reference to Arid “Zone”, for example, forgoes mention of particular jurisdictions or territories, implying that drylands constitute a politically neutral concept (Long, 2000: 59).

This period continues through the United Nations Conference on Desertification (UNCOD) in 1977: the *Plan of Action to Combat Desertification* (PACD) portrayed desertification as a global problem with clearly identified causes and solutions arising from “irrational” land use practices and linked to the African drought and famine crisis of 1968-1973. As defined in the PACD, desertification was not the spread of deserts but the spread of desert-like

conditions, and it had the potential to cause degradation on every continent. By virtue of its sheer physical extent and costs, desertification was said to warrant international attention. As prescribed in the Plan, this attention should focus on a singular anthropogenic source of degradation: irrational land use practices. By calling attention to these practices, the PACD emphasized the physical processes by which activities such as overgrazing, irrigation and continuous monoculture depleted the land's resources. The UNCOD Plan of Action made improved land-use planning central to its recommendations, and envisaged a large extension of control by central planners over rural land use. There were little more than perfunctory nods in the direction of the logic of existing land uses, and local participation in planning (Swift, in Leach and Mearns 1996: 87).

Observers have pointed out that just as the “received wisdom” about desertification had served the implicit interests of the colonial project of centralized administration over natural resources, so in the 1970s it dovetailed with the agenda of many independent African governments to strengthen control over their dryland regions. Once again, the desertification discourse was shaped to serve as a powerful tool to legitimize the sedentarization of nomads in the name of environmental protection while elites in these countries were actually interested in social control and nation building, breaking down tribal affiliations (Toulmin and Brock, in Behnke and Mortimore 2016: 41). This was especially the case for governments with a significant nomadic pastoral population, who were perceived as a threat to national unity because of their ability, through movement with their herds, to evade registration and taxation by the central state.

The desertification narrative was also a useful justification for calls for increased aid flows. The need for increased funding for anti-desertification measures was a constant theme of governments, especially in Africa, during the 1970s, and when the UNCOD Plan of Action was not implemented, the blame was put on inadequate funding rather than inadequate ideas. In the 1970s, following the Stockholm Conference, environmental arguments began for the first time to make real progress in international negotiation, and southern governments and international organizations were not slow to seize on them to argue for more aid. For the aid agencies, desertification seemed in 1977 an ideal theme for their activities, since it was seen to lie largely outside the political arena (unlike poverty, land distribution or birth control, all raised during UNCOD, but sidelined because of their controversial nature), without powerful losers (Swift, in Leach and Mearns 1996: 88). As in the case of national governments, desertification provided a crisis narrative enabling aid agencies to assert rights as stakeholders in the drylands. The scale and nature of the

perceived threat provided a perfect justification for the PACD's "proximate solution" which was based largely on the application of modern science and technology through top-down, nationally-based programs, guided by scientific expertise (mainly from developed countries) and facilitated by western-style technologies (Long, 2000: 81).

UNCOD marks the beginning of the international undertaking of the issue of desertification as a global environmental problem: in this phase, the priorities that dominated the policymaking process were reflected into UNEP's advocating of policies that supported the tenets of international development, and promoted scientific and technological solutions. Desertification was thus framed as a global problem, aligned with UNEP's international agenda, and amenable to technical solutions and the transfer of resources from North to South. This approach has been ascribed to a broader "global environmental management discourse" (Adger et al., 2001) that promotes a technocentric worldview by which blueprints based on external policy interventions can solve global environmental dilemmas.

The third period of desertification politics picks up in the early 1980s as critiques emerge regarding previous scientific and policy interpretations of the phenomenon. In fact, the 1980s were a decade of evaluation: after UNEP set about measuring the global "status" and "rate" of desertification's "advance", assessment results suggested a worsening of the problem, and of course disappointment was expressed with the PACD implementation. In addition, UNEP's methodologies and general approach to anti-desertification efforts came under scrutiny. Swedish researchers used remote sensing studies to question the very existence of desertification (Long, 2000: 21). Others criticized the ways that desertification had been conceptualized and addressed in the 1970s. They took issue with the multiple meanings ascribed to the term, heavy reliance on natural as opposed to social science expertise, methodologies used to characterize desertification, and causal narratives that portrayed victims of desertification as obstacles rather than resources for its remedy.

Increasing reservations about the Sahelian desertification paradigm coalesced into a compelling alternative explanation of the evolution of Sahelian landscapes and society – one which argued that the biophysical manifestations of desertification and drought in the Sahel were inseparable from their underlying social, political and economic causes, consequences and remedies. Dryland degradation thus started to be framed as the outcome of complex interactions between climate, ecosystems and social systems in

inherently dynamic environments; this strand of thought also emphasized the importance and value of local knowledge and institutions for developing the drylands, framing interventions in support of the adaptive capacities of local people (Toulmin and Brock, in Behnke and Mortimore 2016: 42).

This persuasive counter-narrative, more attuned to the concerns and strengths of the populations concerned, more plausible, more participatory, and based on better science, combined ideas about indigenous technical knowledge and customary institutions, including common property management rules; it pointed to studies showing the excellent adaptations farmers and herders in the drylands had made to the vagaries of event-driven ecosystems (Swift, in Leach and Mearns 1996: 90). This vision was not long to take over in the aid bureaucracies, also helped by a certain trend towards participatory approaches: already in the context of the UNCED preparations, Chapter 12 of *Agenda 21* identified desertification as a problem of land degradation arising from "climatic variations and human activities", while policy remedies included poverty eradication and popular participation; new perceptions of desertification were emerging (Long, 2000: 22).

The fourth era begins with the Rio Conference and extends through the 1990s, with the signing of the UNCCD and the early stages of its implementation. According to the scientific development described above, policies in the 1990s portrayed a more complex vision of desertification processes: unlike 1977, delegates to the Intergovernmental Negotiating Committee in 1993 did not identify a single factor, such as land use, as responsible for desertification. Neither did they portray scientific expertise as the primary means for defining desertification and devising its solutions. They instead pointed to complex interactions among ecological, social and political factors (CCD, 1994: Preamble) as responsible for desertification. Rather than "top-down" policies based on more "rational" land use and western technologies, developed and developing countries alike called for a "bottom-up" approach involving local communities. The treaty highlighted the need to tailor anti-desertification efforts to ecological, cultural, economic and political factors inherent in each local context (Long, 2000: 22). These policies reflected a broader causal narrative that pointed to "climate variations and human activities" (CCD, 1994: Article 1[a]) as responsible for desertification. They prescribed greater reliance on local forms of knowledge: these features reflected UNEP's fading role in the desertification debate combined with greater participation by non-governmental organizations.

The UN Convention to Combat Desertification itself was cheered as a new and "fresh" approach to the problem of desertification. The treaty itself noted, "despite efforts in the past, progress in combating desertification and mitigating the effects of drought has not met expectations... a new and more effective approach is needed at all levels within the framework of sustainable development" (CCD, Preamble). Various articles and public relations literature referred to the Convention as an innovative solution, a "fresh approach" and a "new hope" (Interim CCD Secretariat, 1995). All of this seemed to reflect a concerted effort to separate the Convention from the widely publicized and lackluster performances of earlier decades (Long, 2000: 79).

Indeed, the rhetoric of innovation adopted by the Convention was a superficial stance that succeeded in sidelining some deeper issues related to the scientific clarity and cohesiveness of the legal instrument – issues that however did not take long to emerge, as it was highlighted in the previous sections. It was already seen how political support for the Convention rested on a "diplomatic artifice of ambiguity" predicated on "a consensus definition of the problem... [that] formalized the ambiguous roles of environmental degradation and drought in the desertification concept" (Behnke and Mortimore, 2016: 10). Partly dropping the desert metaphor and the insistence on either human causation or permanence, the official UNCCD definition was sufficiently vague to encompass different kinds of environmental decline – including changes that did not mimic the onset of desert conditions or were only transitory – by almost any imaginable cause, natural or human. In other words, the response to the scientific impasse lived by the concept of "desertification" was not to abandon the concept as untenable, but *to expand it*. The two broad perspectives on desertification – the narrative describing an inexorable spread driven by poor land management practices and requiring urgent action, and the counter-narrative emphasizing the long-term rhythms of climate variability and complex social and environmental dynamics – co-existed uneasily while the new institutional architecture was shaped and solidified (Toulmin and Brock, in Behnke and Mortimore 2016: 42).

It was also seen how, if artful compromise trumped scientific clarity in the construction of the Convention, it continued to do so with its implementation. As late as 2012, the UNCCD remained the only Rio Convention without a functioning or proposed independent intergovernmental scientific body "to guide policymakers' considerations of scientific evidence that is credible, relevant and legitimate" (Behnke and Mortimore, 2016: 10). The sum of all these elements may explain how, sixteen years after the UNCCD entered into force, the Rio+20 conference still recognized a "need for urgent action to reverse land

degradation” in 2012. This did not exactly stand up for UNCCD's achievements: once again, international policy remedies to reverse the process of “desertification” seemed to replicate a pattern of failure.

Some interpretation of the shifts in UNCCD strategic focus

Previous sections investigated how implementation of the UNCCD on the ground was and still is fraught with difficulties: the parties' obligations (and the Convention's expectations from parties) are not quite clear, the robust financial and political capital necessary for its implementation is barely in place, the major tool for implementation, the National Action Plans, are not yet relevant to mainstream policy making and development cooperation, and donors often addressed land degradation issues bilaterally rather than under the framework of the Convention. Furthermore, it was observed that the meaningful involvement of local communities in defining, identifying, monitoring and responding to desertification, which is one of the UNCCD centerpieces of “combating desertification”, is for various internal and external reasons often missing (Stringer et al., 2007, quoted in Chasek et al., 2015: 6).

Since the mid-1990s desertification was characterized as a “blanket term for a whole range of specific biological, chemical and physical changes in the environment” whose “breadth rendered its actual use impractical, for example in terms of attempts to quantify desertification” (Thomas and Middleton 1994: 9). It was observed that progress would have been difficult unless the unitary concept of desertification was abandoned in favour of measuring aspects of land degradation – changes in vegetative biomass, the responsiveness of the vegetation to rainfall, or rates of soil erosion, for example – that were each susceptible to quantification (Behnke and Mortimore, 2016: 10).

The need for a shift in focus of the UNCCD and to rethink policies (for example Adeel et al. 2007, calling for effective mainstreaming of desertification policies within the context of larger social and economic development policies) was voiced from different standpoints after the first decade of implementation; the previous section reviewed how the 10YSP Plan represented a first attempt to re-conceptualize the framework and operational strategy to implement the convention's objectives. When elaborating its 10-year Strategy, the Conference of the Parties realized that although the Convention's “relevance is particularly recognized for the drylands, ... it is increasingly positioning itself as an instrument that can make a lasting global contribution” (UNCCD, 2007).

The first element which is to be analyzed in this regard is the gradual shift of the

geographic “coverage” of the Convention, which in a first moment was supposed to concern those countries situated in “arid, semi-arid and dry sub-humid zones” which were exposed to the risk of desertification. In fact, the UNCCD restricts both “desertification” (Article 1.a) and “land degradation” (Article 1.f) to drylands (excluding hyperarid areas). However, the Convention has always adopted a rather ambiguous position on its specific/universal focus: if it is true that the CCD was soon ratified by almost the totality of UN member states, in line with the rhetoric of *global* cooperation and concerted action as the only possible strategy to respond to the desertification crisis – it cannot be denied that the convention’s mandate was limited to arid regions, and that it had been negotiated in order to keep a strong focus on the Sahelian region in the first place – as article 7 and Annex I reminded.

It has been suggested that, accordingly, the phenomenon of land degradation was initially framed as a dryland problem, i.e., mostly confined to “marginal” land and mainly affecting marginalized populations. This could be the main reason why the global significance of the UNCCD and its subject matter were habitually underestimated, leading to a low appreciation of the UNCCD as an instrument worthy of substantial support. The absence of “land degradation” or “desertification” from the 7th Millennium Development Goal addressing environmental sustainability, while it did address the subject matters of the two “sister” Rio Conventions, could be seen as a reflection of this problem (Chasek et al., 2015: 7).

In the light of the clear contradiction between the ambition of the Convention to position itself as a truly global instrument at the same level of the CBD and UNFCCC, on the one hand, and the circumstance according to which desertification wasn’t indeed a phenomenon concerning all countries, on the other, it appears clear that the only possible move to overcome the impasse was to somehow “adjust” the focus of the convention itself, moving from “dryland degradation” (that is, desertification) to “land degradation” *tout court*, an environmental issue which was viewed as more apt to be embraced by the totality of parties to the convention³¹. This solution allowed at the same time to skip the fastidious problem of lacking of concrete solid scientific data and consequent monitoring indicators about the ungraspable concept of “desertification”, something that could not be borne if the phenomenon – whatever the dimensions that it entailed – was to be managed effectively, and was to attract funding (as it was analyzed in the previous sections).

³¹ For example, during the 4th meeting of its Conference of the Parties (December 2000), the UNCCD amended its text by including a new, fifth implementation annex, for 17 Central and Eastern European countries, 11 of which have no drylands within their borders, but are affected by land degradation just the same.

The main shortcoming was that the original object of the text negotiated in the aftermath of the UNCED had been drastically altered. If the original spirit had been to put in place a regulatory framework to promote international cooperation to sustain dryland African regions to cope with the problem of land degradation (and consequent human suffering), in the broader perspective of the promotion of a socioeconomic development process, this does not seem to represent anymore the primary issue of concern of the UNCCD. The process that can be observed is one of “alignment” with the other Rio sister conventions: the preferred focus is one on environmental issues that are global in nature in that they affect all regions of the world; the scientific background provides the instruments to put in place a managerial strategy in which measurable targets can be set, while the original developmental, interdisciplinary focus combined to an apparent openness to the social sciences has clearly been overshadowed.

If the Convention could finally cover a much larger spectrum of “degradation” issues, it seems that the question of the legitimacy of this move, in the light of the object of the convention which has remained unchanged, has not been brought up. Indeed, the “desertification” slogan had clearly consumed all its potential, complicating rather than smoothing the process of international awareness-raising and attraction of funds; it is a fact that objections were not made to the realignment of the Convention centered on the “promotion of sustainable development through sustainable land management” (Jaubert 2012: 252). Observers were already suggesting such “shift in scope away from desertification and land degradation in specific climatic areas, towards a more holistic view, ... thus guiding global land sustainability around the world,” which would enable it to “become the principal global framework for protecting the world's soils” and “develop a broader geographical focus to ensure that all ecosystems and climatic zones are explicitly included,” and provide it with a “clearly defined role as an international environmental Convention addressing a globally occurring problem,” an approach that would also maximize the synergies between the subject matter of the CBD and the UNFCCC (Stringer, 2008).

This strategic shift paved the way for the emergence of the Zero Net Land Degradation (ZNLD) concept within the context of the UNCCD in 2011. A commissioned “background paper” set the stage for assessing the scientific and policy rationale of ZNLD (then LDN) and provided material for the UNCCD Secretariat to present the land degradation neutrality concept in a document submitted to the Preparatory Committee for the Rio+20 conference. Soon after, the “post Rio+20” UN process of translating the LDN aspirational goal of *The Future We Want* into action on the ground was launched (Chasek et al., 2015:

7).

According to the UNCCD, the most distinctive feature of land degradation neutrality as a strategy to address land degradation is the integration of the three activities prescribed by the Convention (Article 1[b]): the “prevention and/or reduction of land degradation”, the “rehabilitation of partly degraded land,” and the “reclamation of desertified land” (UNCCD, 2014: 12). As conceived by the UNCCD Secretariat, LDN is a land degradation-focused target that is explicitly operational at the global scale. Once operationalized by the UNCCD, it would position the Convention to be in line with its two sister Rio Conventions that operate at the global scale (Chasek et al., 2015: 7).

One important question remains unanswered along this transitional process: if the concept of desertification is recognized to have lost its analytical utility for science and practice, what explications can be provided for the fact that it remains embedded in the UNCCD, and is explicitly mentioned in Goal 15 of the SDGs? The argument proposed here is that the set of new, more contemporary issues that has been brought up to reframe the issue of land degradation simply constitutes another phase of international “desertification policy” – a phase that should be positioned along the political and institutional tradition that has been analyzed in the previous paragraphs, in which the changes and adjustments intervened at the development policy level (adoption of the SDGs, priority focus on global climate) are reflected, but that does not seem to have moved forward through capitalizing on past policy efforts’ mistakes. This point will be elaborated in the following section.

A new “phase” of desertification policy? The mirage of Land Degradation Neutrality

In the decades since ratification, the broad UNCCD definition of desertification has permitted the perceived purpose of the Convention to evolve in step with changing policy concerns and shifts in development theory. In the 1990s, official thinking on desertification began to reflect the fashion for participatory or bottom-up development, and to distance itself (though not entirely consistently) from the older rhetoric of coercion and centralization. Post-2000, desertification has been depicted as a potential security threat, reflecting the emergence of terrorism, state failure and forced migration as international policy concerns (Behnke and Mortimore, 2016: 6). With the increasing prominence of climate change, desertification has recently been reframed as one part of land degradation “in any climatic zone – not just in drylands” and linked to wider issues of resilience and adaptation in response to global warming: this process proceeded hand in

hand with the increasing realigning of aid bureaucracies' strategic focus with the universal objectives enshrined in the SDGs.

Against this backdrop, it was seen already how the UNCCD was reactive to seize the opportunity to reinvigorate the international profile of the Convention through the appropriation of the concept of LDN, which has become protagonist of a “new” powerful narrative that prescribes international mobilization: the type of action that is proposed embraces the usual combination of national policy reform, technology transfer, and scaling-up support for local initiatives and efficient management of local practices.

Although LDN is a newly developed framework of action that has not yet been fully mainstreamed into the UNCCD (a national target setting programme was launched in 2016 under the aegis of the Global Mechanism³²), some general observations can be made on the basis of the analysis that has been presented, that point to the fallacious sentiment that a new era of combating land degradation has been launched (again), when indeed the dynamics that have led to the production of previous policies to combat desertification are being replicated – namely in what concerns the formulation of the problem being addressed, which has in turn pivotal implications for the designation of programmes, strategies and initiatives expected to put an end to the degradation phenomenon.

Ultimately, the LDN managerial approach relies upon the attainment of measurable target-driven goals that, although might well suit environmental recovery objectives, do little to acknowledge the decades of social sciences' insights into the complexity of the phenomenon of land degradation. It should be clear to international policy circles at this point, that a focus on technical solutions to the detriment of social and political considerations runs the risk of failure (Keeley and Scoones 2003); it seems nonetheless that efforts going beyond rhetoric stances of inclusiveness have not sufficiently been made that go in the direction of providing a comprehensive policy framework in which, along with technical deliverables on the state of the soil and vegetative cover, political and economic dimensions come to play. To what extent is it relevant to address land degradation in a socio-economic vacuum, extrapolated from the context of local land tenures, livelihoods, social power relations, etc.?

Moreover, a univocal, scientifically rigorous definition of land degradation does not exist. Is it decline in vegetation, soil erosion, loss of economic value, or other? Are the methods

³² See the Box at page 48, “The SDGs, Land Degradation Neutrality and the UNCCD”.

and indicators to quantify land degradation functionally relevant at different scales, or do they lose their meaning when extrapolated to larger spatial areas and compared? If the LDN initiative has to be coherently portrayed as a universally relevant matter, which is tackled by means of an international legal instrument, this should at least be based upon solid universal evidence – a lesson highlighted from the “desertification” experience – that land degradation in Botswana has the same meaning as in Argentina. The problem is that this is hardly the case. Even if it cannot be denied that land degradation occurs in all countries, scales and meanings attributed to the phenomenon simply don’t fit in a unique discourse and framework of action. Moreover, it appears still hard to establish under what circumstances land degradation really matters, given that different stakeholders may determine differently when land degradation matters to them.

Even if the “desertification” denomination has been dropped, some of the older issues concerning the impossibility of up-scaling contextually relevant observations are always valid. The problems of evaluating vegetation change in positive or negative terms are indicative of a broader ambiguity. The contextual nature of degradation implies that “simple, universal systems of judging land degradation ... for precise criteria, or criteria based on economic performance are in vain. The evaluation of land degradation cannot be reduced to nutrient budgets, soil depth, soil water holding capacity, to economics or to politics” (Behnke and Mortimore, 2016: 22). If “degradation” is situationally dependent, then studies simply cannot characterize the condition of the earth’s environments by applying a uniform system of evaluation.

If all these elements are taken into account, it would seem that international institutions are creating a new “mirage” that simply substitutes the old desertification paradigm, through squeezing once again complex variable phenomena into simplistic representations supposed to provide frameworks for action. Given these premises, on-the-ground success of the “new” approach appears to be unlikely; from a technical point of view, it shall also be noted that national and international implementation of LDN would involve political, organizational and technological challenges related to monitoring restoration of land in national rates (with baseline rates not currently available); to develop the adequate technical capacities, especially in developing countries, to guarantee that the reporting exercise is appropriately carried out; and further scientific knowledge to supplement existing knowledge of land use and land cover change processes generally.

Overall, if it cannot be denied that Land Degradation Neutrality has promising chances of strengthening the international profile of the UNCCD by providing a flexible framework to address a globally occurring problem, this does not automatically provide for the “legitimacy” and appropriateness of the strategic shift.

The actual universal and vague framing of land degradation is in sharp contrast with the political stances that had led to the establishment of a Convention in the perspective of supporting socioeconomic development in African drought-prone regions – the first environmental Convention ever adopted upon Southern countries’ request and consequent bargaining efforts. Instead of capitalizing on past experiences and lessons, and of harnessing the increasingly detailed scientific and socio-economic knowledge accumulated over the decades about drylands’ ecosystem and development, in order to deliver some effective supporting strategy in that regard, the constituencies of the Convention have preferred to focus attention on a completely new framing of the issue brought up by political momentum – in which the developmental concern clearly lost preeminence in favor of a purely technical, environmentally focused managerial approach.

Letting aside operational challenges to achieve LDN, this concept is built upon conceptual and methodological flaws. The LDN framework is child of the global climate and environmental managerial upsurge sanctioned through the SDGs: only time will demonstrate if such an approach will prove resistant to the vagaries of aid politics, or if LDN will be dismissed and replaced by some new policy formulation to deal with land degradation.

The observations gathered point to the unclear policy context in which priorities are set at the international level, according to institutional needs, funding trends, political pressure – factors that have little to do with the supposedly bottom-up driven process that should constitute the driver of sustainable development policy. The issues related to how the imperative to address land degradation is crafted at the international level, and ultimately to whose needs the international agenda actually answers, will be addressed in the conclusion.

Conclusion: unpacking the policy process

What conclusions can be drawn from the analysis of the evolution of desertification as an international policy issue? We shall have demonstrated at this point that the different framings (and denomination) of the problem, and the solutions suggested to it, answer less to a linear logic of rational policy making than to a complex set of interactions linking the creation of scientific knowledge with the formation of international environmental institutions, that translate their assumptions and worldviews into causal narratives and policy prescriptions.

In other words, the processes by which desertification has been defined and redefined as local or global are closely tied to processes of institutional inscription – that is, the desertification case suggests that institutions tend to construct problems in their own image. The causes and solutions of a given policy problem framing often corresponded to the agenda, tools and resources of the dominant institutions involved with interpreting and remedying the problem. (Long, 2000: 43).

The strategic and operational “shift” of the UNCCD oriented towards a new alignment of the objectives of the convention centered on sustainable land management practices and land degradation neutrality is nothing more than another clear example of such process. A proceeding that is important to underscore is that, as it has been suggested by Keeley and Scoones (2000: 19), whether a problem definition, or an offered solution, moves to a position of influence actually amounts to whether well-located actors take things up and put their weight behind them. The interactions of science, actor-networks and bureaucratic politics across scales from the global to the local result in a range of actions typified by action plans, technical interventions and community based projects.

Networks, coalitions and alliances of actors (individuals or institutions) with a shared vision – similar belief systems, codes of conduct and established patterns of behaviour – are important in spreading and maintaining narratives through chains of persuasion and influence such as journals, conferences, education or informal introductions. Through these networks, “norms of good and bad practice are reinforced, research agendas are set, and orthodoxies or conventional wisdoms are reiterated and, very often, dissenting opinions or unconventional views are suppressed”. It is also important to note that in any given policy domain, actor networks are not exclusively confined to state institutions; they link up parts of the bureaucracy and government with the private sector, donors and

actors in civil society – such as journalists, researchers and non-governmental organisations (NGOs). Thus the existence of actor networks can make for pluralist policy-making involving a range of different stakeholders or actors (IDS, 2006: 11).

A set of conclusion can be drawn, that aim at underlining some possible bias of the “international governance machine” – which seem to still provide too little space for a truly open, diversified process of production of knowledge in the first place, and production of policy solutions and ways of implementing them.

The first conclusion could be that, notwithstanding alarmist trends and oversimplifications of the problem, the desertification (then LDN) narrative has helped to raise awareness on the issue of land degradation – a “flag” was raised, and, as a result, some funds were committed. Through debate and interaction some of the more extreme claims were dismissed and some important scientific improvement in ecosystems knowledge has been made. What then has happened is a set of more-or-less sensible things in places where there is commitment. This pragmatists’ line of thinking concedes things are not perfect, but this is how the development business works, and what ought to be expected (Keeley and Scoones, 2000: 35).

A second view could be that plenty of money and time has been wasted – unfortunately with little result. Even if no damage was done, little was achieved either. This could be yet another example of the “post-Rio syndrome”, of how bureaucratic imperatives to create action plans around global problems is both diversionary and wasteful.

A third view could take a more critical stance. Through the creation of powerful actor-networks of scientists and policy actors in a range of organizations a problematic narrative was constructed; this had some success in some places, and thus forced an agenda on unsuspecting people. Because it is insufficiently nuanced, and lacks local definition and ownership, this is potentially damaging, as alternative framings of the issue were not countenanced (Keeley and Scoones, 2000: 35).

As it has been highlighted, global agendas are far from monolithic. But there remains a tension between the “stratospheric” realms of the global debate (Keeley and Scoones, 2000: 37) and engagement with local settings, with often-limited ability for local voices to be heard. New and more inclusive forms of deliberation in such global policy debates are still far from being implemented, notwithstanding the rhetoric of “participatory

approaches”, decentralization, multilevel and multi-stakeholder involvement, etc. A truly functioning bottom-up process would allow a diversity of perspectives to engage, bringing in different actors who can help reframe the questions, bringing in the complexity of local realities, and develop a greater diversity of solutions. It has been observed that creating a framework for such engagement remains a major challenge for all international initiatives (Keeley and Scoones, 2000: 37).

In conclusion, policy-making remains in the realm of politics and people, and of knowledge and power. The rise and fall of different policy emphases depends upon the ability of underpinning narratives to galvanise ideas and people around positions. Policy is built on the successful (or otherwise) enrolment of actors – scientists, donors, politicians, NGO staff, farmers and others – and the creation of networks that are able to make use of the policy space emerging from particular contexts, circumstances and timings. The desertification case showed that causal narratives and policy prescriptions often reflect and are aligned with the interests, resources, and jurisdictional domain of prominent institutions and governing bodies dealing with the environmental problem and proposing “solutions” to it.

The story provided by this dissertation was embedded in changing institutional programmes and policy, the international dimension of aid, and international agreements, particularly UNCCD. It was also nested in time from the longer-term history of how the narrative of desertification developed over centuries, to the changes of the past half century and, in recent decades, the accelerating implications of population growth and global environmental change. Through it all comes the pervasive sense that there is such a diversity of systems that any simplistic one-size-fits-all strategy is bound to be wrong in most specific places and times. Social and environmental critical processes cannot be understood without analyses at multiple scales; and ultimately the models that underlie local management and policy decision-making form the fundamental linkage between ecological and social processes. But such an analysis begs questions that arise from recognizing the importance of power and narrative – and possible underlying forces of change.

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