"Desertification" is land degradation in arid, semi-arid, and dry sub-humid areas resulting from various factors, including climatic variations and human activities. It remains potentially the most threatening ecosystem change impacting the socio-economic conditions of millions of people living in the drylands, which account for a significant proportion of the Earth’s land. It is caused by complex interactions of a number of physical, biological, political, social, cultural, and economic factors. Generally, it is a detrimental process that brings about a gradual and an unnoticed reduction in the productive capacity of land over a period of years (Kannan, 2012). The phenomenon of desertification is very old, but the scientific understanding of its causes and consequences, and the global efforts made to address it, are very recent. For example, all the pre-early 1990s assessment of desertification undertaken by the United Nations Environment Programme (UNEP) revealed insufficient basic knowledge of desertification processes (UNCED, 1992).

Although desertification occurs in all regions, it has high concentrations in developing countries, especially in Africa. For example, developing countries in Asia, Africa, and South America have larger populations living in drylands (GEF & GM, 2006). An estimated 40% of people in Africa and Asia live in areas constantly threatened by desertification (Stather, 2007). Achieving the core objectives of sustainable development will remain an impossible mission for nearly two billion people living in the world’s drylands, whose biological productivity is under serious threat from the intensifying trend of desertification (FFO, 2007). Due to desertification, the annual loss of income is estimated at US$65 billion, and this does not include the costs incurred in social and environmental aspects (Kannan, 2012). The costs of desertification are most often measured in terms of lost productivity, which includes the reduced crop yields, grazing intensities, etc. Secondary costs are the loss of ecosystem services and ecological functions that affect the very sustainability of the planet (Sherbinin, 2002).

“Desertification” is a term that has not only generated long-lasting debate among the academic and scientific community in relation with its accurate definition, indicators of measurement, and mechanism to monitoring, but also changed the approaches and policy directions of governments in desertification-affected countries (Batterbury, 2002). To address desertification and its potential effects, a number of measures have been taken by the global community. The adoption of the United Nations Convention to Combat Desertification (UNCCD) is very significant. This paper reviews the status of the implementation of the UNCCD and the challenges involved. Also, it analyses the conceptual interpretation of desertification.

Desertification: A Conceptual Interpretation

In contrast to popular perceptions, desertification is not the natural expansion of existing deserts, but the degradation of land in arid, semi-arid, and dry sub-humid areas (Grainger, 2000). It has a multidimensional interpretation, with desertification experts proposing more than 100 formal definitions. These definitions cover a number of issues which are cross-cutting in nature. In general, these definitions differ in their emphasis on three distinct dimensions: ecological, meteorological, and human (Reynolds, 2001). The term “desertification” was first coined in 1927 by the French scientist and explorer Louis Lavauden, and popularised by the French forester Andre Aubreville (Darkoh, 2003). The Food and Agriculture Organization was the first international agency to use the word “desertification” in
In order to illustrate the phenomenon of desertification, early experts promoted the idea of the ‘encroaching desert’, ‘moving desert’, or ‘advancing desert’. This expansion theory culminated in the assertion by Lamprey that the Sahara was marching at a rate of 5.5 km/year (Lamprey, 1975). Aubreville, well-known botanist and ecologist, was the first one who explained that desertification is not an extension of the existing desert. The United Nations Conference on Desertification (UNCOD), held in Nairobi in 1977, strongly refuted the idea of spreading deserts and the expansion theory, since evidence of advancing deserts was not found (Grainger, 2000). The UNCOD defined desertification as the diminution or destruction of the biological potential of land, and can lead ultimately to desert-like conditions (Dregne, 2000).

However, the definition of UNCOD did not clearly identify the areas where the term “desertification” can be applied. Also, there was no reference to the climatic zones where desertification occurs (Rechkemmer, 2004). Therefore, it was found inadequate in specifying the scope and appropriately providing indicators. These limitations seriously affected the implementation of the Plan of Action (PoA) of UNCOD, as well as undertaking quantitative assessment of the causes and consequences of desertification (UNEP, 1992). In order to ensure better understanding of desertification, a new, more precise definition was required at different levels (Nasr, 1999). In February 1990, the UNEP formed an ad hoc Committee for global evaluation of desertification (UNEP, 1992). It defined desertification as land degradation in arid, semi-arid and dry sub humid areas resulting from adverse human impact (Mainguet, 1999). This definition equated desertification with land degradation and specified the climate zones (Dregne, et.al, 1991). However, it was heavily criticised as being over simplistic, since it identified the human activities as the sole factor for the causes of desertification, totally ignoring the role and influence of climate factors.

Finally, the Earth Summit (1992) held in Rio revised this definition as ‘land degradation in arid, semi-arid and dry sub humid areas resulting from various factors including climatic variations & human activities’ (Mainguet 1999). This is now widely regarded as an authoritative definition of desertification. The UNCCD also adopted this definition (Martello 2004). The main reason for the inclusion of climatic factors as one of the causes of desertification was to soften the political consequences of a definition that places all responsibility on human activity (Corell, 2003). Also, it enables the affected countries to transfer the responsibility to those countries which disturbed the ecological balance through industrialisation (Toulmin, 1994). However, the hyper-arid zones do not fall within the scope of this revised definition. Hyper-arid zones are excluded since they are presumed to be so dry that human degradation is severely limited unless irrigation is practiced. Therefore, there is no possibility of occurrence of desertification (Dregne, 2002).

Global Responses to Desertification

In the contemporary world, no crisis has so clearly demonstrated the need and importance of closer cooperation among governments and the increasing interdependence of different stakeholders as the trans-boundary nature of current global environmental crises. In a world of increasing complexity and interdependence, states remain preeminent actors with requisite political legitimacy and adequate resources to address the emerging critical challenges of global crises, including environmental problems.

Global environmental challenges are becoming increasingly complex. These trans-boundary ecological problems do not conform to the political, administrative, and geographical jurisdictions of modern governments. Kofi Annan rightly calls them ‘problems without passports’ (Lugt, 2002). The recent upsurge of interest in environmental issues reflects the changing dynamics of global politics and power equation in international relations (Kannan, 2014). The complex environmental problems experienced at any given political jurisdiction frequently have their origins at locations other than where their far-reaching consequences are most seriously felt (Caldwell, 1972). The national sovereignty is totally undermined by the environmental problems which routinely breach the man-made, well-guarded borders of modern states (Hilary, 1992). Because of this, the environmental problems caused by particular sovereign states are a threat to all nations, irrespective of their power and interests in global politics and the availability of resources (UNEP, 2000).

Today, the governments have no exit options, since the complex and highly inter-connected ecological challenges
bind all nations and create a new level of interdependence among nation states (Biermann & Klaus, 2004). Under these dynamic processes, Global Environmental Governance (GEG) has emerged as an alternative framework to the traditional system of government. As a comprehensive paradigm, GEG accommodates different stakeholders and diverse policy inputs to address the contemporary global environmental challenges. Also, GEG provides the required administrative arrangements and legislative framework at different levels to ensure sustainable development. Today, each and every environmental issue, including desertification, is comprehensively being addressed under the framework of GEG, supported by international cooperation and global partnership arrangements.

In the beginning, the global community responded to the problems of desertification on an *ad hoc* basis with specific and localised focus. However, it has changed to a more structured and well-established institutional basis with global focus as the intensity of the problem has increased, as well as the power equation in global politics and the understanding of inter-relationship between environment and development have undergone a paradigm shift since the early 1990s.

**United Nations Sahelian Office (UNSO)**

The African Sahel is a semi-arid environment, characterised by a highly variable climate (Giannini, 2008). Four major droughts have occurred in the West African Sahel this century. The cumulative impact of drought in the Sahel resulted in the deaths of millions of people. This region remained the most permanently vulnerable area, and desertification had adversely affected the well-being of some 80-85% of the population in the region (Agnew & Agnew, 1996). The severe drought and protracted famine that occurred in the Sahel countries triggered world-wide concern. Governments in this region formed the Inter-states Committee for Control of Drought in the Sahel (CILSS). The donor community established the Sahel Club to mobilise and co-ordinate assistance to drought-stricken territories. In September 1973, the UN created a United Nations Sahelian Office (UNSO) to co-ordinate the contributions of the UN specialised agencies (Kassas, 1995). The UNSO is considered the first visible institutional response collectively initiated to address desertification. Generally, this was more a localised effort with little understanding of the problems. This short-term attempt, made on an *ad hoc* basis, failed to understand the broader issues involved in the causes and consequences of desertification. Also, the efforts were not well coordinated due to lack of institutional arrangements.

**UN Conference on Desertification (1977)**

By the continuing spread and intensification of desertification in developing countries, particularly in Africa, the UN has taken a leading role in providing an international framework for addressing this problem. Accordingly, in 1974, the UN General Assembly (UNGA) through Resolution 3202 asked the international community to undertake speedy measures. Following this, a number of UN specialised agencies initiated different activities. Also, in order to give further impetus to international action, the UNGA passed Resolution 3337 on 17 December 1974, initiated by Burkina Faso to convene a Conference on Desertification at Nairobi in 1977 to produce an effective PoA to combat desertification (Rechkemmer, 2004).

In contrast with the popular expectation, the UNCOD did not produce any tangible results (Momtaz, 1996). After extensive consultations, the Conference adopted the PoA, non-binding in nature, to combat desertification. The UNEP, a very young institution at that time, was entrusted with the task of coordinating the implementation of the PoA (UNEP, 1993; Kannan, 2014). Due to various reasons, the implementation of the PoA was not at the expected level. In 1984, the UNGA (Resolution 168) noted with great concern that desertification had continued to spread and intensify in developing countries, particularly in Africa. Despite numerous international efforts, in the early 1990s it was concluded that the PoA was not working and the problem of land degradation was actually intensifying globally (Reynolds, 2001). However, the PoA became the framework for global efforts under the general guidance of UNEP to address desertification (Glenn, 1998). In other words, the non-binding PoA not only served as the precursor to the legally binding UNCCD, but laid down the foundation of the latter’s substance and architecture (Najam, 2004). The problem of desertification remained a major challenge, since the strategy and approach of the global community failed to make any significant impact on the ground. Under this context, the changed dynamics of global politics, as well as the understanding of environment and development, brought a new dimension in the efforts of the
international community to address desertification in the form of the UNCCD.

**United Nations Convention to Combat Desertification (UNCCD)**

Despite several efforts made, the progress in combating desertification was not at the expected level. A new and more effective approach was required at all levels within the framework of sustainable development. The comprehensive failure of PoA and the increasing trends of land degradation in the developing countries, especially in Africa, led to the call for a convention for a more structured action through effectively balancing the changing dynamics of global environmental politics.

The UNGA (Resolution 44/228) asked the Earth Summit to give priority to the issues related to desertification by considering the available resources with a view to preserve the ecological balance. In 1994, the global community adopted the UNCCD to continue its efforts in addressing desertification with new strategies and changed approaches. The UNCCD has emerged as the newest link in the loosely evolving institutional system of global environmental governance. It has successfully raised the profile of desertification at different levels and made it remain on the top of the sustainable development agenda (Batterbury, et.al, 2002). Also, it highlighted the socioeconomic conditions of millions of people living in the drylands and the need to ensure sustainable development through addressing poverty and food insecurity.

**The UNCCD: A Convention of the Poor**

The need for a convention, in the beginning, at the regional level was first raised by the African countries. To realise this idea, the African countries, along with other developing nations, encountered a series of challenges at different stages, which were mostly shaped by the existing dynamics of global environmental politics and the unbalanced power equation, which are constantly practiced and sustained in contemporary international relations. In December 1991, Ministers of Environment from African states met in Abidjan, Cote d’Ivoire, for a regional preparatory meeting for the Rio Summit, where they strongly called for a convention to combat desertification (Kjellen, 1997). This spirited call for a convention clearly reflected their sense of frustration, with the major emphasis given to climate change and biodiversity, during the preparatory meetings across the world. These issues were of greater interest to the developed countries. African countries felt that their primary concerns, including poverty, drought, and food insecurity, did not receive due attention (Toulmin, 1997).

From the very beginning, the African countries influenced the Rio process to put the drylands problems on an equal footing with other issues (Kjellen, 2003). The developed countries promised, as a consequence, to start negotiations for a convention on desertification as a means of keeping African governments engaged in the Rio process (Toulmin, 1997). Finally, desertification was included in the agenda of the Rio Summit because of African persistence and the unexpected support from the United States of America (USA). This support came in response to the environmental criticism the USA received for failing the Biodiversity Convention and for dragging its feet in preparations for the Climate Change Convention. The concession of USA was considered as part of a trade-off between North and South (Adger et.al, 2001).

Even at the Rio Summit, the efforts made for a convention on desertification failed. The developed countries argued that desertification was not a global problem. It was certainly a problem of global significance, but would not necessarily warrant global institutional arrangements (Kjellen, 2003). This argument from the developed countries was illogical. How does a problem of global significance not require a global response? Was it because the victims are in poor, developing countries? Only France, with its special historical ties with Africa, supported the idea of a global convention. Most developed countries, and even the World Bank, insisted that the main problems associated with desertification in Africa were due to the structure and macro-economic policies of governments (Jokela, 2002). Intense negotiations followed between the African countries and the Europeans, as well as among the members of European Community (EC) (Najam, 1995). Finally, the EC accepted to refer the case to the UNGA with a request to establish an Intergovernmental Negotiating Committee (INC) to elaborate a convention on desertification.

With this reference, in fact, the battleground for a convention on desertification shifted from Rio to New York. It
almost passed through similar encounters during the meetings of the INC. Finally, the Convention was adopted on 17 June 1994 and came into force in December 1996 (Toulmin, 1997). This legally binding global instrument came into being primarily at the instigation of the African countries, which see the UNCCD as ‘their’ convention (GACGC, 2001).

In an innovative example of a global treaty combining general principles with region-specific measures, the UNCCD established a regional implementation annex for different regions (Shine & Cyrille, 1999). Perhaps more so than any other global environmental agreements, the UNCCD initiates action and encourages policy responses at the intersection of environmental protection, economic growth, and social development (Bassett & Joana, 2003). Because of this, the UNCCD is considered a sustainable development instrument rather than an environmental treaty. Also, the UNCCD is viewed as much as a developmental agreement as it is an environmental agreement (World Bank 1998). By linking a number of critical environmental challenges with the socioeconomic conditions in developing countries, the UNCCD has become an important force in building a multilateral framework for addressing poverty and hunger through the adoption of sustainable development practices (Kjellen, 1997). Thus, the UNCCD is often rightly called the “Convention of the poor” (Cowie, 2007).

The Implementation of the UNCCD and Its Status

The countries affected by desertification formulate action plans at national, sub-regional, and regional levels to implement the convention. The other parties to the UNCCD provide the required support, in terms of finance and technology, to facilitate effective implementation of the Convention. The UNCCD is being implemented under the framework of global partnership and multi-level institutional arrangements. Though the Convention provides specific strategies, like participatory, consultative, and bottom-up approaches, these are broader and remain major challenges to actually implement.

Also, the UNCCD is more strongly based on socioeconomic aspects than the other environmental agreements (Wolfrum & Nele, 2003) since it recognises desertification primarily as a problem of sustainable development and closely interlinked with poverty, food insecurity, and environmental degradation (Onchere, 1999). Due to its comprehensive coverage of a number of cross-cutting developmental issues, the implementation of the UNCCD remains as major challenge for poor countries (Kannan, 2014). Several initiatives were taken to provide clear direction to facilitate effective implementation of the UNCCD within the context of resource constraints and the ability of developing nations to undertake such challenging activities.

Recife Initiative

In November 1999 at Recife (Brazil), the COP-3 launched the “Recife Initiative” to secure the commitments of members to ensure effective implementation of the UNCCD. In December 2000, the COP-4 in Bonn, Germany, adopted the “Declaration on the Commitments under the Convention” as a follow-up to the “Recife Initiative”. It also reiterated the need to initiate measures to address poverty and food insecurity. It reaffirmed the importance of mobilising adequate resources and promoting technology transfer. It stressed the need to integrate the UNCCD implementation into mainstream national development strategies of affected countries. It emphasised the importance of identifying different benchmarks and indicators to support the UNCCD implementation at national, subregional, and regional levels.

10-year Strategic Plan (2008-2018)

By decision 3/COP.8, the COP-8 of the UNCCD adopted a 10-year Strategic Plan (2008-2018) to enhance the implementation of the Convention. The vision of this Strategy is to forge a global partnership to address desertification, in order to support poverty reduction and environmental sustainability. This is considered a blueprint for fostering the implementation of the UNCCD. The adoption of this strategy has contributed to a more focused, targeted, and intense UNCCD implementation process. It has also led to efforts in the systematic monitoring and assessing of progress made. There is a high likelihood of continued long-term benefits from implementing the UNCCD through the means of strategy approach.
The Strategy to guide the actions of stakeholders of the UNCCD:

- To improve the living conditions of people in the affected areas;
- To improve the condition of affected ecosystems in the drylands;
- To generate global benefits through effective implementation of the UNCCD; and
- To mobilise resources to support implementation of UNCCD.

Five operational objectives of the Strategy:

- To actively influence processes and actors;
- To create enabling environments;
- To be a global authority on knowledge related desertification;
- To address capacity-building needs; and
- To mobilise resources.

The Strategic Plan is a unique opportunity to provide strategic guidance and direction in order to enhance the implementation of the Convention (UNCCD Secretariat, 2013).

**Changwon Initiative**

In October 2011, COP-10 of the UNCCD at Changwon, Republic of Korea, adopted the ‘Changwon Initiative’ to complement activities being undertaken in line with the 10-year Strategic Plan and Framework (2008-2018) and to enhance the implementation of the Convention. The main components of the ‘Changwon Initiative’ include 1) enhancing the scientific process of the UNCCD, 2) mobilising additional resources and facilitating global partnership arrangements, and 3) supporting a multilateral framework for the promotion of best practices.

**Alignment of Action Programmes to the Strategy**

In decision 3/COP.8, the COP-8 of the UNCCD urged countries affected by desertification to align their action programmes and other relevant UNCCD implementation activities relating to the Convention with the 10-year Strategic Plan and Framework to enhance the implementation of the Convention (2008-2018). By the same decision, the COP asked the developed countries, with assistance from the Global Mechanism (GM), to mobilise international and national resources, both technical and financial, to assist countries affected by desertification with this realignment process.

**Status of the Implementation of the UNCCD**

The current status of the UNCCD implementation can be assessed through the Mid-term Evaluation Report on the 10-year Strategic Plan and Framework (2008-2018) to enhance the implementation of the UNCCD. The evaluation considered earlier UNCCD reports and documents. The evaluation process covered not only the status of implementation of the Convention, but also identified possible causes and potential solutions where implementation is incomplete.

For some of the objectives related with the UNCCD implementation, there is no sufficient evidence to show the extent of progress which has been made. In some of the areas, the progress, or lack thereof, has yet to be determined. The level of implementation of most regional and subregional action programmes (RAPs and SRAPs) have been low and not aligned with the Strategy. The thematic programme networks launched to support RAP implementations are not connected with the Committee on Science and Technology, and most of them are reportedly not effective.

The complexity of the indicators used in reporting and the limited capacity on data collection and analysis affected the reporting process. These factors are responsible for the low levels of reporting through the performance review and assessment of implementation system (PRAIS). Many affected countries did not receive the needed technical assistance and timely financial support to undertake the reporting process.
Another difficulty in monitoring and reporting on progress towards achieving the operational objectives has been ambiguity on how to measure the indicators. It is difficult to assess whether the plan targets were reached, due to a lack of comparable data. Another challenge is establishing a connection between the indicators and the activities connected with the Convention. Nevertheless, there is evidence of progress in realising many of the outcomes related to the operational objectives, although the progress has been uneven.

With regard to realignment, there is little evidence that they helped advance the implementation or alignment of action programmes, nationally or regionally. Only eleven countries aligned their national action programme (NAP) with the Strategy, although an additional 54 countries planned to finalise by 2015. In general, there is little evidence to conclude that the UNCCD objectives are being appropriately incorporated into relevant national policy areas and plans.

Also, there is a significant gap between the current capacity-building initiatives and the required capacity to implement the action programmes. In addition, countries faced unnecessary delays in receiving funds they requested. Moreover, due to the complexity of GEF procedures and capacity limitations in affected countries, Parties have not taken full advantage of the allocated resources. Some progress has been made by desertification-affected countries in designing Integrated Investment Frameworks (IIF) and Integrated Financing Strategies (IFS). However, there are still numerous countries that have not yet designed a systematic approach to mobilise resources for national UNCCD implementation, due to lack of assistance (UNCCD Secretariat, 2013).

Challenges with UNCCD Implementation

After a decade of implementation of the UNCCD, it has been recognised that there are several factors which limit the optimal deployment of the Convention in addressing poverty and ensuring sustainable development. These factors are insufficient financing in comparison with the two other Rio conventions, weak scientific indicators and measurement mechanisms, insufficient advocacy and awareness among various stakeholders, and institutional weaknesses and challenges in reaching consensus among the members on various key issues. These challenges of the UNCCD implementation can be grouped into three aspects. These aspects are the institutionalisation process of the UNCCD; the conceptual issues related with measurement and identification of indicators and benchmarks; and the North-South debate, especially in relation to mobilisation of financial resources and technology transfer.

Institutionalisation Process of the UNCCD

The unprecedented level of increase in the number of environmental institutions can easily be described as one of the most prominent features of global politics in the last few decades (Low & Gleeson 2001). In seeking long-lasting solutions to the complex global environmental problems, the instruments of Multilateral Environmental Agreements (MEAs) have proved an important mechanism to ensure sustainable development (Roberts et.al., 2004). The UNCCD is the newest link in the evolving international system of environmental governance and can be viewed as milestone in building a global partnership for sustainable development (Kjellen, 1997).

Like other global environmental agreements, the UNCCD has a vast network of institutional mechanisms to guide its implementation (Boczeck, 2005). During the first decade, the UNCCD invested most of its time and energy in building these institutions. This can be attributed, in part, to the sub-optimal performance of its governance structure. For example, the COPs had focused much of their attention on process-related issues rather than substantive implementation issues (UNCCD Secretariat, 2007).

Though considerable achievements were made in the institutionalisation of the UNCCD (Bauer, et.al, 2006), these processes significantly affected the governments’ efforts to implement the convention. After the COP-6, the building of the institutions of the UNCCD was regarded as largely complete and the implementation phase began (GACGC, 2005). A number of measures were taken in the process of institutionalisation of the UNCCD. Among them, the following two need special mention, since they took a large share of time in the very formative phase of the UNCCD.

Institutions to Review the Implementation of the UNCCD
Reviews include not only on the measures taken by the affected countries to implement the UNCCD, but also on the commitments made by the developed nations to provide resources in facilitating implementation of the convention. There is no separate institutional mechanism specified in the UNCCD to review the implementation of the convention. However, the convention provides the power to review its implementation of the UNCCD with COPs (Kannan, 2012).

The developing countries in 1997 proposed a separate institution, the Committee to Review the Implementation of the Convention (CRIC), to periodically review the implementation of the UNCCD, since the volume of work of the COPs increased. However, the developed countries vehemently opposed this because they were in apprehension that their failure to adhere to the commitments made under the UNCCD would come under scrutiny. The developed countries questioned this, considering the responsibility to review implementation that was vested with the COPs (Corell, 1997). On the other hand, the developing countries argued that the Convention does not rule out the possibility of establishing a committee for this purpose.

Based on the recommendations of the Expert Group, the COP-5, held in Geneva in October 2001, established a CRIC as a subsidiary body of the COPs to regularly review the UNCCD implementation (Mandel, 2001), due to the experience gained at the national, sub-regional, regional, and international levels, and to facilitate the exchange of information on measures adopted by the governments in order to draw conclusions on the status of the UNCCD implementation (UNCCD Secretariat, 2008).

**Financial Mechanism for the UNCCD**

Since the beginning of negotiations, the industrialised countries opposed the UNCCD because they were not willing to undertake any financial responsibility for addressing desertification (UNEP, 2002). Such a trend and attitude has continued even after the convention came into force. Today, in terms of financial and human resources, the UNCCD is undernourished (Ortiz, 2005). The UNCCD did not establish a separate fund to finance desertification-related activities, unlike the other conventions (Ayton-Shankar, 2002). During the negotiation, the developing countries demanded a separate financial mechanism. The G-77 and China claimed that the UNCCD would be pointless unless it was backed by a new, independent, specialised fund, capable of mobilising adequate resources (Corell, 2003).

However, it established a brokering institute called Global Mechanism (GM). Under Article 21(4) of the UNCCD, the GM promotes actions leading to the mobilisation and channeling of substantial financial resources to affected developing countries. This mechanism was not conceived to raise or administer funds. The UNCCD has not, until recently, benefited from access to any specific fund (Cullet, 2005). This slowed progress in its implementation (Ayton-Shankar, 2002). Also, the UNCCD didn’t specify the quantum of support that the developed nations should extended to the desertification-affected countries. Such uncertainties affect the implementation of the UNCCD (Krasnova, 1995). A UNEP report clearly acknowledges that inadequate resource mobilization is hampering the affected developing countries’ efforts to fulfil their commitments under the UNCCD (UNEP, 2003).

There was an increasing demand to make the Global Environment Facility (GEF) a source of funding for the UNCCD. In November 2000, the GEF decided to explore the best options to support desertification-affected countries, especially those in Africa, in implementing the UNCCD. The World Summit on Sustainable Development (2002) called on the GEF to become a financial mechanism of the UNCCD. Subsequently, the GEF, in October 2002, decided to designate land degradation as its fifth focal area and to establish the GEF as a financial mechanism of the UNCCD (Rechkemmer, 2004).

**Conceptual Issues**

The UNCCD is uniquely comprehensive in its scope, since it adopts sustainable developmental practices with indigenous knowledge to address not only global environmental problems, but also poverty and hunger across all regions, particularly in Africa (Kannan, 2014). However, it lacks specific mechanisms to put its goals into practice (Wagner, 2006). Also, in contrast with other environmental agreements, the UNCCD has not yet specified quantitative and verifiable reduction commitments and conservation goals in a time-bound manner (GACGC, 2005), unlike the climate change framework convention that clearly provides specific guidelines to reduce green house gas...
emissions to a certain percentage (GACGC, 2001).

The inclusion of socioeconomic aspects has become a challenge to measure progress through scientific indicators (Adeel, 2006). Although being an issue-specific convention that addresses the problem of desertification, the contents of the UNCCD expand to rather elusive and complex issues. This vagueness is mainly responsible for the lack of clear direction on how to implement the convention (Bauer, 2006). Equally, the lack of clear boundaries to the concept of desertification itself and what, exactly, is to be covered by the UNCCD compromises more focused and coherent action in the process of implementing the convention (Ortiz & Tadanori, 2009; Kannan, 2014).

The assessment of the current status of desertification across the regions shows that there is a lack of hard, precise data (Nasr, 1999). There are no precise baseline data or monitoring systems for the observation and evaluation of land degradation in drylands (Grainger, 2000; GACGC, 2001). The accuracy, meaning, and practical usefulness of existing estimates of global desertification trends are increasingly questioned, particularly given the difficulty of determining the causal relationships of such complex processes (Abahussain, et al 2002; Sherbinin 2002). Darkoh (1998) argues that existing data, even at the national level, is not based on quantitative measures, but are best-guess estimates at a high level of generality. This was even termed as an “educated guess” of the true extent of the problem (Symeonakis and Drake, 2004; Kannan, 2014).

The lack of precise, agreed estimates on the extent of desertification provides an opportunity for the misuse of the concept (Vero´n, et al, 2006). Therefore, as long as the causes and consequences of desertification are not documented as per the scientific standards, the issue of desertification will remain a political and developmental fiction (Humphreys & Susan, 2001). The Committee on Science and Technology and the CRIC of the UNCCD are working closely to develop simple and reliable indicators to easily measure and provide default data sources to increase the quality and quantity of reporting.

North-South Debate

The North-South debate, with respect to environmental problems, can be analysed within the context of common but differential responsibilities which have been enshrined in a number of global legal instruments. The failure of developed countries to accept this principle ‘in letter and spirit’ remains a major challenge in achieving the objectives of sustainable development by the developing countries.

The principle of common but differentiated responsibilities under the international legal framework entails that developed countries, given their historic and present contribution to environmental problems through industrialisation and their technical capabilities, should take the lead in protecting the environment (Andresen & Ellen 2005). This principle holds that developed nations should take special responsibility to meet global sustainable development goals through the transfer of environmentally sound technologies, on preferential and concessional terms, and the extension additional financial resources to developing countries (French, 2000; Segger, 2004).

To recognise the socio-economic impact on the environment and to find common ground between the global North and global South, the Stockholm Conference (1972) produced a seminal paper known as the “Founex Report” (Campbell, 1989). It created a conceptual platform to bridge the gap between developing and developed countries in their attitudes towards environment and development (Campbell 1973). It also emphasised that developing countries do indeed have environmental problems, but they differ from those of industrialised countries (Bassow 1979).The Founex Report forcefully articulated the southern position at Stockholm and remained consistent and unchanged in the last three decades, including at Rio in 1992 and Johannesburg in 2002 (Najam, 2005). It is one of the most authentic enunciations of the South’s collective interests on issues of environment and development (Najam, 2004).

With respect to the UNCCD, the similar nature of problems continues. First, the convention failed to specify the quantum and nature of support to be extended by the developed countries. Secondly, the review mechanism doesn’t go into detail about the inaction on the commitments made by the North. Thirdly, there is no punitive mechanism if any party fails to provide the required support. As the UNEP report clearly acknowledges, the inadequate resource mobilisation is hampering the affected developing countries’ efforts to fulfil their commitments under the convention.
United Nations Convention to Combat Desertification: Issues and Challenges
Written by Kannan Ambalam

(UNEP, 2003).

Conclusion

Desertification remains potentially the most threatening ecosystem change impacting the socioeconomic conditions of millions of people living in the drylands. It is caused by complex interactions of a number of physical, biological, political, social, cultural, and economic factors. In the beginning, the global community responded to the problems of desertification on an *ad hoc* basis with specific and localised focus. However, it changed to a more structured and well-established institutional basis with global focus as the intensity of the problem has increased, as well as the power equation in global politics and the understanding of inter-relationship between environment and development have undergone a paradigm shift since early 1990s.

By linking a number of critical environmental problems with socioeconomic conditions, this global treaty has become an important force in building a multilateral framework for addressing poverty and hunger through adoption of sustainable development practices in the developing countries. After a decade of implementation of the UNCCD, it has been recognised that there are several factors which limit the optimal deployment of the Convention in addressing poverty and ensuring sustainable development. These factors are the institutionalisation process of the UNCCD; the conceptual issues related with measurement and identification of indicators and benchmarks; and the North-South debate, especially in relation to mobilisation of financial resources and technology transfer.

In order to ensure adequate mobilisation of required resources, the commitments of the developed countries should be quantified. The punitive mechanism should be introduced in case of lack of compliance. The developed countries should come forward to use their advanced satellites and other surveying technologies to monitor environmental degradation and assess the natural resource base, in order to help the developing countries collect data on land degradation. The UNCCD Secretariat must encourage sharing experiences and best practices in natural resources management. For example, water harvesting and micro-irrigation can make big differences in many parts of Africa if they are introduced, such as in South Asia. Strong collaboration needs to be developed with educational institutions in selected countries and regions where desertification problems are serious. This will help to not only create awareness on this critical issue, but to enable them to link theory and practice.

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