

THE RIO CONVENTIONS
ACTION ON ADAPTATION



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Convention on Biological Diversity

United Nations Convention to Combat Desertification

United Nations Framework Convention on Climate Change







Introduction

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1982



The earth's climate is changing at a rate unprecedented in recent human history and will continue to do so for the foreseeable future. The impacts and risks associated with this are global, geographically diverse and increasingly being felt across a range of systems and sectors essential for human livelihoods and well-being. The more severe and far-reaching the impacts of climate change are, the greater the loss of species will be, and the greater the deterioration of drylands and the risk of desertification and land degradation around the world will be. These impacts not only threaten global efforts to achieve the Millennium Development Goals and sustainable development, but for many vulnerable communities, especially the least developed countries (LDCs) and small island developing States (SIDS), these impacts threaten their very survival.

The Rio Conventions – the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Framework Convention on Climate Change (UNFCCC) – address the need for adaptation to climate change through their activities. The secretariats of the Rio Conventions seek to enhance coordination and synergy, including on adaptation, through the Joint Liaison Group (JLG).

This publication on the occasion of the Rio+20 Conference highlights the roles of the Rio Conventions' processes involved in biodiversity, combating desertification/land degradation and climate change as important contributors to the global sustainable development agenda, drawing attention to successes and future opportunities.

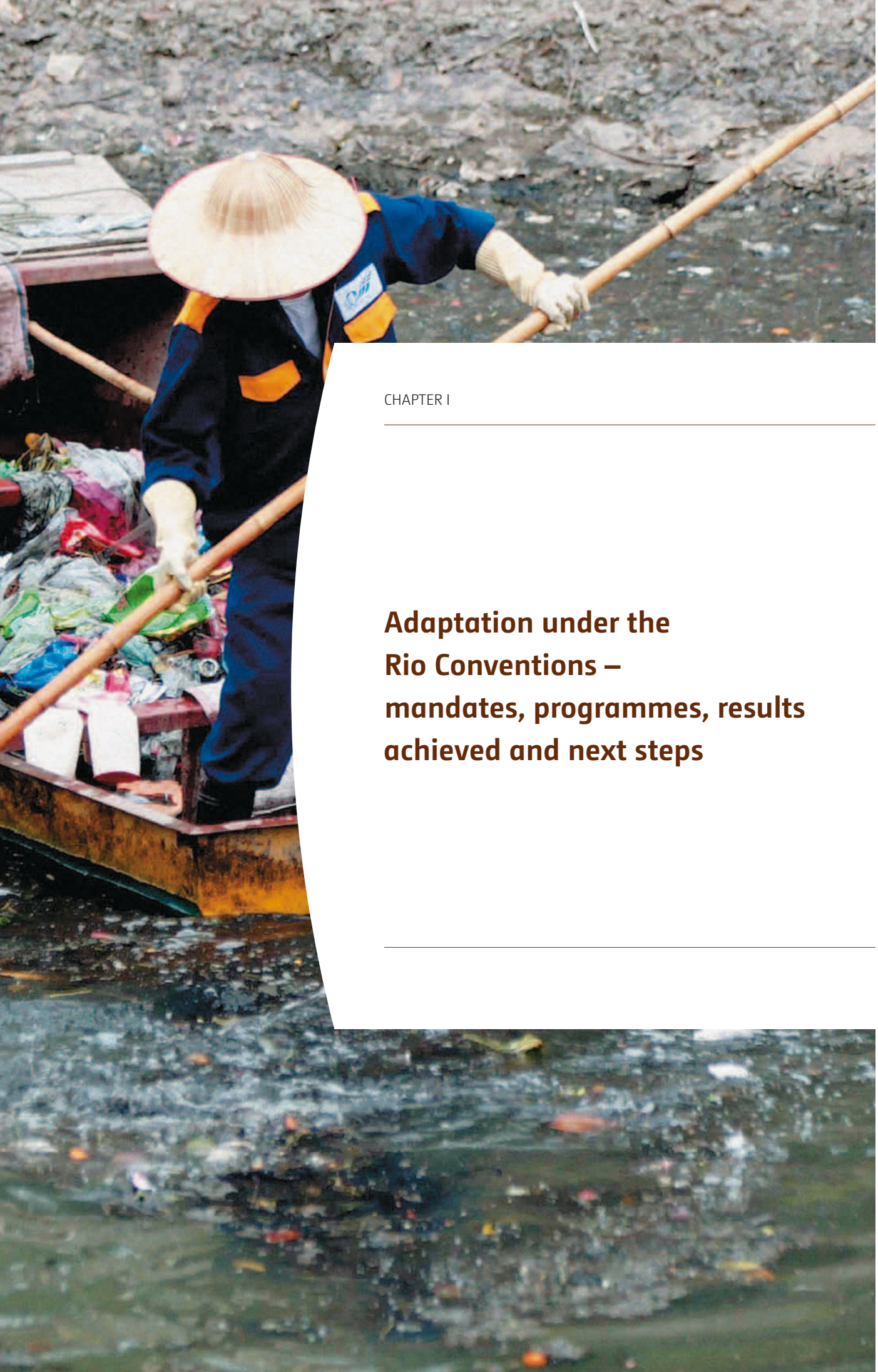
The Rio Conventions collectively offer a range of tools, services and expertise that assist vulnerable countries and communities in enabling effective adaptation and achieving sustainable development. Through facilitating knowledge-sharing and learning, strengthening technical and institutional capacities, and facilitating access to financial and technological support, the Rio Conventions support Parties in undertaking the full adaptation cycle: from assessing impacts, risks and vulnerability, to planning and implementing adaptation actions, to monitoring and evaluation. A coordinated approach to responding to climate change can ensure that adaptation activities have multiple benefits, including combating desertification and preventing biodiversity loss, thus catalysing progress in achieving sustainable development goals.

The mandate of the Joint Liaison Group (JLG), which comprises the Executive Secretaries of the CBD, UNCCD and UNFCCC, is to enhance coordination among the three Rio Conventions and explore options for further cooperation. The JLG supports Parties in the achievement of national-level synergies and coordination in the implementation of the Conventions. A coordinated platform exhibiting joint work is the Rio Conventions Pavilion (<www.riopavilion.org>), which helps to raise awareness and share information on linkages in science, policy and practice between biodiversity, climate change and sustainable land management.

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CHAPTER I

Adaptation under the Rio Conventions – mandates, programmes, results achieved and next steps

CBD

Adaptation within the framework of the CBD addresses both the need to enhance the adaptive capacity of species and ecosystems, and the opportunities arising from ecosystem-based approaches to adaptation. Parties to the CBD first committed to adaptation activities during the fifth meeting of the Conference of the Parties (COP) in May 2000. In particular, decision V/3 on marine and coastal biodiversity included adaptation to climate change within the framework of ‘priority areas for action on coral bleaching’. Since this first decision was adopted, the mandate for the CBD with regards to adaptation has increased in strength.¹

The phrase ‘ecosystem-based approaches for adaptation’ was recognized at the tenth meeting of the COP held in October 2010 along with guidance to Parties (SEE BOX 1). Perhaps most significantly, in adopting the Strategic Plan for Biodiversity 2011–2020, Parties agreed to the Aichi Biodiversity Targets, which include the following:

- Committing to minimizing the multiple anthropogenic pressures on vulnerable ecosystems impacted by climate change or ocean acidification by 2015 (Target 10);
- Committing to enhancing ecosystem resilience and the contribution of biodiversity to climate change mitigation and adaptation, including through the restoration of at least 15 per cent of degraded ecosystems by 2020 (Target 15).

Box 1. Ecosystem-based approaches for adaptation (decision X/33)

Parties are invited to do the following:

- **Implement ecosystem-based approaches for adaptation, that may include sustainable management, conservation and restoration of ecosystems, as part of an overall adaptation strategy that takes into account the multiple social, economic and cultural co-benefits for local communities;**
- **Integrate ecosystem-based approaches for adaptation into relevant strategies;**
- **In the planning and implementation of ecosystem-based approaches for adaptation, carefully consider different ecosystem management options and objectives to assess the different services they provide and the potential trade-offs that may result from them.**

¹ The text of the decisions and other documents are available at <www.cbd.int>.

The CBD has made a number of technical publications on the links between biodiversity and adaptation available, including the following:

- Technical Series No. 10 – *Interlinkages between Biological Diversity and Climate Change*;
- Technical Series No. 25 – *Guidance for Promoting Synergy among Activities Addressing Biological Diversity, Desertification, Land Degradation and Climate Change*;
- Technical Series No. 41 – *Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change*;
- Technical Series No. 42 – *Review of the Literature on the Links between Biodiversity and Climate Change – Impacts, Adaptation and Mitigation*;
- Technical Series No. 51 – *Biodiversity and Climate Change: Achieving the 2020 Targets*.

The CBD promotes efforts to provide knowledge and fill information gaps on biodiversity and adaptation, including on impacts and vulnerability, as well as tools to assess trade-offs between adaptation goals and the conservation and sustainable use of biodiversity.

Parties requested the Executive Secretary of the CBD to support the design and implementation of ecosystem-based approaches for adaptation as they relate to biodiversity. This will build capacity for the integration of adaptation within National Biodiversity Strategies and Action Plans, the development and dissemination of technical resources and learning tools and the enhancement of awareness of the value of and trade-offs from linking biodiversity and adaptation (SEE BOX 2). The CBD will build on existing tools and processes such as the database on ecosystem-based approaches for adaptation (<<http://adaptation.cbd.int>>), the United Nations Decade on Biological Diversity and the pilot partnership to enhance the capacity of countries to implement joint activities within the Rio Conventions.

Box 2. Using biodiversity to improve the effectiveness of adaptation plans

Parties to the CBD are taking two main approaches towards using biodiversity to improve the effectiveness of adaptation plans. The first involves the development of specific and targeted planning tools for biodiversity and climate change, such as Australia's National Biodiversity and Climate Change Action Plan. Australia is also developing National Climate Adaptation Research Plans for terrestrial, freshwater and marine biodiversity. The second focuses on the mainstreaming of biodiversity into sectoral plans that include adaptation elements. For example, at the local level, India has identified the importance of including both biodiversity and climate change considerations in community-based disaster management programmes. Furthermore, Parties have integrated adaptation into protected area planning and management through the development of adaptation plans for specific protected areas and national commitments to expand marine protected areas such as in Mauritius.

UNCCD

The provisions of the UNCCD reflect a strong link between desertification, land degradation and drought (DLDD) and adaptation to climate change: “In pursuing the objective of this Convention, the Parties shall adopt an integrated approach addressing the physical, biological and socio-economic aspects of the processes of desertification and drought” (Article 4, paragraph 2(a)). Article 8, paragraph 1, states: “The Parties shall encourage the coordination of activities carried out under this Convention and, if they are Parties to them, under other relevant international agreements, particularly the UNFCCC and the CBD, in order to derive maximum benefit from activities under each agreement while avoiding duplication of effort”. Article 10 provides for the formulation of national action programmes, which address poverty reduction and vulnerability to climate change in affected developing countries. These action programmes seek to identify the factors contributing to desertification and practical measures necessary to combat desertification and mitigate the effects of drought, thereby contributing fully to adaptation efforts.

In addition, references to hazard-based adaptation strategies (e.g. improving early warning and response capacity, strengthening and/or establishing early warning systems in regions prone to desertification and drought) can be found in the annexes to the Convention. Key decisions in relation to DLDD and climate change include decisions 2–4/COP.8, 8/COP.9 and 9/COP.10.²

Since its inception, the UNCCD has been engaged in enhancing the adaptive capacities of dryland populations to highly variable environmental conditions. As vulnerability varies across sectors, regions and social groups, adaptation measures range from measures to reduce vulnerability to long-term sustainability envisioned for the world’s poorest and most vulnerable populations.

Information to facilitate the mainstreaming of DLDD into the current climate change negotiation and implementation processes is made available through the advocacy policy framework on climate change, referred to in decision 9/COP.10. These issues are addressed as part of the climate change adaptation framework, with options for action provided, including possible ways to enhance cooperation with the UNFCCC at the national level.

In addition to advocating sustainable land management (SLM), the UNCCD promotes the setting up of a Sustainable Development Goal on land and soils, for measurable targets on land degradation as means to address DLDD, and options to increase climate resilience. Through the advocacy policy framework on climate change, the UNCCD raises policy and decision makers’ awareness on sustainable land management as a vital component of holistic strategies to address DLDD in affected countries (SEE BOX 3).

The Committee on Science and Technology of the UNCCD will meet no later than March 2013 in conjunction with its UNCCD 2nd Scientific Conference entitled “Economic assessment of desertification, sustainable land management and resilience of arid, semi-arid and dry sub-humid areas”. Moreover, the UNCCD, together with the World Meteorological Organization, aims at assisting countries in developing their National Drought Policies based on the anticipated outcomes of the High Level Meeting on

² The text of the Convention and the decisions are available at <www.unccd.int/en/about-the-convention> and <www.unccd.int/en/about-the-convention/official-documents> respectively.

National Drought Policy, which will take place in 2013. Both the Scientific Conference and the High Level Meeting are expected to produce comprehensive assessments and policy-relevant recommendations on the linkages between drought and adaptation, especially the adaptive capacity of rural communities most vulnerable to climate change. The UNCCD is also further developing the existing impact indicators measuring progress towards the achievement of the strategic objectives of the UNCCD as a means of assessing ongoing drought in affected Parties and neighbouring countries.

Box 3. Improved land and water management as a means to adapt to climate change in Pakistan³

Climate change adversely affects the livelihood of the dryland farming communities in Pakistan. Floods and drought are among the most frequent natural hazards in many regions of the country. In response, sustainable land and water management interventions were funded by the Global Environment Facility aiming to increase the adaptive capacity of poor farming communities. The Pakistani Government mobilized financial resources to strengthen the traditional Rud Kohi (Hill Torrent) irrigation system in the Sheikh Haider Zam area, which is prone to severe droughts, as one of the priority programme areas of its national action programme. The interventions resulted in improved soil and water resources conservation that were formally lost to rivers and streams during heavy floods, and benefited most of the farming households in terms of increased food production and cash savings. In addition, many farmers in the region managed to irrigate additional land and mitigate soil erosion and land degradation.

³ Source: Virk, Amjad T. and Nas, Syed M. 2011. Pakistan: land and water management interventions. In: Combating Desertification and Land Degradation: Proven Practices from Asia and the Pacific, eds. Yang, Youlin., Squires, Victor., Kim, Kyungsoo., Park, Hyemin., and Jin, Laura S., 127–140.

UNFCCC

Adaptation is one of the major responses for addressing climate change under the UNFCCC. Since its establishment, the UNFCCC has shaped and supported global action on adaptation. In 2001, Parties established a work programme to address the specific needs and special situations of LDCs. The work programme comprises the national adaptation programmes of action (NAPAs), which provide a process for LDCs to identify and communicate priority activities that respond to their urgent and immediate adaptation needs. In 2005, Parties established the Nairobi work programme on impacts, vulnerability and adaptation to climate change to improve the understanding and assessment of impacts, vulnerability and adaptation, and to assist all Parties in making informed decisions on practical adaptation actions and measures to respond to climate change. Sound climate data and information, based on observations, research and modelling, are essential for guiding effective adaptation actions. Needs for climate data and observations are being addressed through close cooperation with international observation and research programmes and networks. Activities, results, and lessons learned are being shared between Parties and the scientific community including through an annual Research Dialogue.

Recognizing that enhanced action and international cooperation on adaptation is urgently required, Parties to the UNFCCC established the Cancun Adaptation Framework (CAF) in 2010 to guide the implementation of, and support for, adaptation. In 2011 in Durban, Parties advanced the implementation of the CAF through operationalizing various components and reinforcing a long-term commitment to adaptation action.

The establishment of the Adaptation Committee to provide high-level guidance and overall coherence on adaptation under the Convention as well as a process to enable LDC Parties – building on their experience with the NAPAs – to formulate and implement medium- and long-term national adaptation plans will result in strengthened technical and institutional capacities of Parties to undertake adaptation. Knowledge sharing and learning is facilitated by a work programme to consider approaches to address the loss and damage associated with climate change impacts on developing countries that are particularly vulnerable to the adverse effects of climate change and the Nairobi work programme, which serves as the technical and methodological knowledge hub for the CAF. The newly established Green Climate Fund promises greater volumes and predictability of support than previous funds and is expected to consolidate existing funding avenues such as the Adaptation Fund. This improvement in support is coupled by a progressive shift away from short-term adaptation projects towards longer-term national plans and programmes, which take full account of developmental priorities.⁴

Many adaptation processes and programmes under the UNFCCC call for strong linkages with other Rio Conventions. For example, many LDCs sought synergy between the Rio Conventions in developing and implementing their NAPAs (SEE BOX 4). Under the CAF, Parties are encouraged to build the resilience of ecological systems, including through the sustainable management of natural resources. The work programme on loss and damage not only focuses on extreme weather events, but also on slow onset events such as land and forest degradation, loss of biodiversity and desertification. A workshop on ecosystem-based approaches for adaptation to be held in 2013 under the Nairobi work programme will consider the lessons learned through the Rio Conventions.

Box 4. The national adaptation programme of action of Mauritania

Mauritania's NAPA builds upon its plans developed under the CBD and the UNCCD. Priority adaptation measures related to the protection of natural resources and production in rural areas were identified. Mauritania's first NAPA project currently under implementation supports adaptation of agricultural production systems and water resources in arid and semi-arid areas. The project has adopted an integrated approach to increase the resilience of agricultural production systems, and to ensure, in the short and medium term, the benefits of adaptation for the local population, and in the long term, an improvement in productivity and a reduction of land degradation and desertification.

⁴ The text of the Convention, relevant decisions and information on adaptation is available at <www.unfccc.int/adaptation>.



CHAPTER II

**Contributing to implementing
adaptation actions –
challenges and opportunities**



CBD

Recent reports from the Intergovernmental Panel on Climate Change and the CBD expert group on biodiversity and climate change have raised global awareness of the links between biodiversity and climate change. Further technical work on models linking biodiversity and climate change as well as on ecosystem-based approaches to adaptation will build capacity to facilitate further contributions from governments, intergovernmental and non-governmental organizations and the private sector. The Strategic Plan for Biodiversity 2011–2020 can only be achieved through broad cooperation among different stakeholders. Opportunities for governments and relevant organizations to contribute to its implementation include the use of communication hubs, such as the Rio Conventions Pavilion.

Although significant steps have already been taken to enhance links between biodiversity and adaptation, a number of obstacles remain, especially relating to information. As one example, while climate change may increase threats from invasive alien species, effective responses require institutional capacity-building, and an expansion of knowledge on where invasive alien species are likely to originate and which ecosystems they are most likely to affect under changing climate conditions. The process of addressing such gaps will benefit from closer collaboration and mobilization of financial resources among those responsible for implementing the Rio Conventions, including the CBD.

UNCCD

Drylands have an outstanding potential as a reservoir of resilient plants and species as well as of traditional management practices carried out by smallholder farmers, pastoralists and harvesters of natural products. SLM practices and technologies offer numerous opportunities to enhance the adaptive capacity of affected communities in the world's drylands and beyond to the adverse impacts of climate change.

Some challenges remain. There is a need to increase references to DLDD-related scientific studies and practical experiences in peer-reviewed literature focusing on synergies and a need to

mainstream SLM into adaptation priorities. This will ensure the full integration of DLDD issues into adaptation research programmes. Poverty is already widespread in most drylands areas. The impacts of climate change make the poor even more vulnerable. Therefore, strong and concrete support to develop technical capacities for SLM to enhance the resilience of affected populations (i.e. smallholder farmers and indigenous communities) especially in LDCs, SIDS and developing countries in general is needed. To increase access to financial resources to address DLDD, adaptation funds should support projects and programmes on soil carbon sequestration.

UNFCCC

While Parties still face a number of challenges when implementing adaptation measures, including financial, technological, knowledge and institutional constraints, the increased engagement of major groups offers opportunities for effective partnerships. The CAF invites relevant international, regional and national organizations, the public and private sectors, civil society and other stakeholders to undertake, and support, enhanced action on adaptation in a coherent and integrated manner, building on synergies between activities and processes, and to disseminate widely information on progress made.

Effective stakeholder participation has been developed around the LDC work programme, the Research Dialogue and the Nairobi work programme. For example, more than 250

stakeholders from all levels, regions and sectors have become active partners of the Nairobi work programme. Their sustained engagement, including pledges for action and updates on results achieved, is critical to achieve the full and effective implementation of adaptation. The Nairobi work programme Private Sector Initiative (PSI) has provided an opportunity for further engagement of private sector partners in adaptation activities under the UNFCCC. The PSI catalyses the involvement of the private sector in the wider adaptation community through leveraging its unique expertise. In early 2012, the secretariat launched a database of private sector actions on adaptation, featuring good practices and profitable activities being undertaken by private companies, including those in partnership with civil society or the public sector.



CHAPTER III

Conclusion

The Rio Conventions, individually and collectively, act as catalysts for action on adaptation at all levels. Remaining challenges to realizing synergy between the Conventions can be overcome by employing appropriate planning tools such as ecosystem-based approaches to adaptation and SLM practices, in particular at the national and subnational level. Concerted action by the three Rio Conventions in support of the ability of Parties to these Conventions to assess, plan, implement and review adaptation is instrumental in fostering a holistic approach to identifying and creating the necessary enabling environment for effective adaptation in the future. Ultimately, for adaptation to be successful, it needs to be integrated into relevant social, economic and environmental policies and actions with a view to climate-proofing sustainable development.



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