Parliamentary contributions to achieving food security and addressing climate change in the drylands under the current economic crisis

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I. Executive summary

1. Besides the tasks of maintaining peace and avoiding wars between and within countries, we face two challenges in this century: the fights against poverty and hunger, and climate change through sustainable development paths. Both challenges are sharpened by the current economic crisis, and even the quest for peace cannot be tackled without addressing food security and desertification issues.

2. The relationships between desertification, sustainable land management (SLM), that is, land use practices that ensure land, water, and vegetation adequately support land-based production systems for both current and future generations,[1] and food security, and between soil and climate change are important. They have transboundary impacts and should be better reflected in policymaking processes. Parliaments and parliamentarians must become ambassadors for this relationship and agents of change. A two-year parliamentary work programme should be adopted during the September 2009 United Nations Convention to Combat Desertification (UNCCD) Parliamentary Forum.

3. More and better governance, greater regulation and tighter control of the financial sector are needed, accompanied by a reform of international financial institutions. All efforts to overcome the global economic crisis must be complemented by a sustainable, socially balanced and fair globalization.

4. Parliaments and parliamentarians should influence the way out of the current economic crisis by forging better framework conditions for the future. They should actively influence relevant local, national and international processes and actors to adequately address desertification/land degradation issues and regard them as highly important for achieving food security in the drylands.

5. Investment in SLM and rural areas is a local concern, a national interest and a global obligation.

6. Desertification and climate change must be addressed in a synergetic fashion, as part of an integrated approach to achieving sustainable development for all. Combating desertification needs to be recognized as an entry point to address poverty reduction and ecosystem protection.

7. A multitude of problems must be solved simultaneously. The state of land degradation must be turned into one of land health. The burden of poverty must be reduced, particularly in rural areas. Provision of adequate and affordable food must be ensured. Ways and means for effective adaptation to and mitigation of climate change, as well as for cutting further the release of carbon dioxide (CO_2) into the atmosphere must be identified and implemented. The global importance of enhanced land and soil management is becoming increasingly clear.

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[1] "SLM practices can be implemented most efficiently if all actors involved (farmers, researchers and decision-makers) participate in decision-making processes (selection, development, adaptation, planning and implementation). Successful implementation of SLM often requires close cooperation between neighbours or members of a village community. Providing information, imparting knowledge, and exchanging experience play a key role in each of these steps."
UNCCD. 2009. "Benefits of Sustainable Land Management", available at <www.cde.unibe.ch/userfiles/file/Einstiegsseite/CSD_Benefits_of_Sustainable_Land_Management%20.pdf>.

8. Parliaments should work to ensure that agricultural land use is brought into the realm of implementation mechanisms on climate change and soil is included as a mandatory accounting category in any post-Kyoto agreement.

9. The implementation of the UNCCD must be better connected with efforts to target climate objectives, human security, migration and conflict prevention.

Introductory note

10. Parliaments and parliamentarians seeking to deal with desertification and land degradation should take account of the conclusions and recommendations of the meeting of the Steering Committee of the seventh UNCCD Parliamentary Round Table and Parliamentary Network (PNoUNCCD),[2] held in Praia, Cape Verde, on 1 December 2008[3] under the chairmanship of President Dr. Aristides R. Lima:

(a) There is at the national, regional, subregional and international levels a need for improved parliamentary participation, greater parliamentary involvement, capacity strengthening, and more parliamentary networking in the areas of sustainable land and water management, land governance, food security, climate change, and so on.

(b) The Parliamentary Steering Committee should show more guidance in strengthening the PNoUNCCD, look for better follow-up of the declarations of the Round Tables and monitor the work of parliamentarians; performance indicators would helpful for evaluation.

(c) The PNoUNCCD must be revitalized, including more communications with parliaments, the establishment of a database of relevant laws and legislation, and the elaboration of a statute on its objectives, organization, and so on.

(d) A two-year work programme (2010–2011) should be discussed at the next Parliamentary Round Table to be held in parallel with the ninth Conference of the Parties to the UNCCD in Buenos Aires in September 2009.

II. Food security in the drylands

A. Defining food security and drylands

11. Hunger and food insecurity are increasing. One billion people are hungry today. Higher food prices and the current global economic crisis push even more people into hunger and poverty. There will also be a climate-induced decline in food production. It is anticipated that global warming of 2–4°C will cause a drop in agricultural productivity worldwide. The first Millennium Development Goal (MDG), to eradicate extreme poverty and hunger, and the related target of halving between 1990 and 2015 the proportion of people who suffer from hunger are becoming more difficult to achieve for many countries.

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[2] At the request of the Parliamentary Round Table forum meeting in Havana in 2003, in February 2004 the UNCCD secretariat established on its website a webpage “Parliaments in action”.

[3] See the report of the meeting, available at <www.unccd.int>.

12. About 40 per cent of the Earth's land surface is dry. Drylands are inhabited by over 2 billion people, about 90 per cent of whom live in developing countries – including the poorest and most vulnerable people. Drylands are areas characterized by a lack of water, which constrains two major, interlinked ecosystem services: primary production and nutrient cycling. Four dryland sub-types are widely recognized according to the level of aridity or moisture deficit: dry sub-humid, semi-arid, arid and hyper-arid. Drylands are in the front row of climate vulnerability. Diverse in terms of their soils, flora, fauna, land use, and people, one binding feature of all dryland environments is their aridity.

13. A large share of the population in drylands depends on crop and livestock production for its livelihood. Although 65 per cent of the area of drylands is rangeland, 25 per cent is able to sustain cultivation, although with productivity constraints linked to low soil moisture. Dryland rangelands support half the world's livestock and provide forage for wildlife. About one billion people depend directly on the natural resources of the drylands for their livelihood, and many of them are poor and marginalized. Achieving sustainable development in the drylands has significant implications for reducing poverty and hunger worldwide.[4]

14. Half the world's countries have dryland environments in portions or all of their land. Eighty per cent of the world's poorest countries are located in dryland areas. Large areas of drylands are located in sub-Saharan Africa, North Africa and the Near East, in Latin America and the Caribbean, and in Asia and the Pacific. It is here that land and environmental degradation is occurring at alarming rates – often leading to desertification. It has been estimated that some 10–20 per cent of dryland is already land degraded, and that one billion people are under threat from further desertification.[5]

15. Even if developed countries are hit by desertification (e.g. in Australia, the USA or the southern member States of the European Union,), it is the poorest countries that suffer most and have the highest proportion of dryland areas. The situation is particularly harsh in Africa, where more than 50 per cent of Africa's poorest people are concentrated on 'low potential' lands that are prone to degradation. More than two-thirds of the African continent is made up of drylands (43 per cent drylands in addition to 27 per cent classified as desert) and more than 325 million people are adapting to the uncertainties of climate change and rainfall.[6]

16. The food crisis together with desertification, land degradation and drought (DLDD) and the recent global economic crisis have led to more hunger in the world. Daily, the human right to food is violated for hundreds of millions. It is estimated that 50 per cent of the one billion hungry people in the world live in dry and degraded lands.

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[4] Department of Economic and Social Affairs. 2008. "Trends in Sustainable Development: Agriculture, Rural Development, Land, Desertification and Drought, 2008–2009", United Nations Secretariat, New York, available at <www.un.org/esa/sustdev/publications/trends2008>; and United Nations Development Programme, Drylands Development Centre, <www.undp.org/drylands>.

[5] The most definitive assessment of the severity of desertification on a global scale was produced by the United Nations 2005 Millennium Ecosystem Assessment. See in particular its "Desertification Synthesis", available at <www.millenniumassessment.org>.

[6] UNCCD. 2008. "Human Rights and Desertification: Exploring the Complementarity of International Human Rights Law and the United Nations Convention to Combat Desertification Desertification", Land Degradation and Drought Issue Paper no. 1, available at <www.unccd.int/publicinfo/docs/HumanRightsandDesertification.pdf>.

17. The world may have reached a turning point where several simultaneous and interrelated crises, that is, the food and economic crises, climate change, water scarcity, energy shortages and population growth, require extraordinary policy measures to cope with the multiple challenges that could pose severe dangers to human, national and international security as well as human well-being and the survival of billions of people.

B. The effects and causes of food insecurity under the current economic crisis

18. In the 21st century, agriculture continues to be a fundamental instrument for sustainable development and poverty reduction. Three-quarters or the poor in developing countries live in rural areas; 2.1 billion people live on less than USD 2 a day and about 900 million people on less than USD 1 a day, and most depend on agriculture for their livelihoods. In the agriculture-based countries, which include most of sub-Saharan Africa, agriculture and its associated industries are essential to growth and to reducing mass poverty and food insecurity.[7] Half the world's hungry depend for their survival on lands which are inherently poor and which may be becoming less fertile and less productive as a result of the impacts of repeated drought as well as further desertification, climate change and unsustainable land use.

19. Agriculture alone, that is, crops, livestock, agroforestry and aquaculture, will not be enough to massively reduce poverty, but it has proved uniquely powerful for that task and has been used too little to achieve growth and food security in today's agriculture-based countries, leading to high social costs. Agriculture is often a policy area neglected by policymakers and decision-makers, and it deserves more attention.[8] Agriculture operates in three distinct worlds – agriculture-based, transforming and urbanized – and in each the agriculture-for-development agenda differs in pursuing sustainable growth and reducing poverty.

> "At the domestic level, sound environmental, social and economic policies, democratic institutions responsive to the needs of the people, the rule of law, anti-corruption measures, gender equality and an enabling environment for investments are the basis for sustainable development". World Summit on Sustainable Development: Plan of Implementation, Johannesburg, 2005.

20. Since the Great Depression of the 1930s, there have been many financial and economic crises. The current crisis, however, is unprecedented because of its scale and its worldwide impact. What started as a crisis in the financial sector, which began in the United States in 2007–2008, then spread to Europe and has become a global economic crisis. The crisis emanated from the centre and reached the farthest limits of the periphery. According to World Bank estimates from June 2009,[9] the global economy will shrink in 2009 by close to 3 per cent, world trade is projected to fall by 10 per cent, and developing countries are expected

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7 World Bank. 2008. World Development Report 2008; and World Bank. 2007. Agriculture for Development, 2007.

8 In the 2003 Maputo Declaration, African leaders committed themselves to allocate 10 per cent of their national budget to agriculture by 2008 as part of attempts to meet the first Millennium Development Goal. Six countries have met this target so far, but average spending on agriculture in the African Union is 5–6 per cent. According to Oxfam, two-thirds of the world's rural poor have been overlooked by what little investment has been made. Oxfam. 2009. "Investing in Poor Farmers Pays: Rethinking How to Invest in Agriculture", available at <www.oxfam.org.uk>.

9 World Bank, Topics in Development: What the World Bank is Doing, <www.worldbank.org/html/extdr/financialcrisis>.

to grow by only 1.2 per cent. Most developing country economies will face increasingly bleak prospects unless the slump in their exports, remittances and foreign direct investment is reversed by the end of 2010.

21. The welfare of developed and developing countries is mutually interdependent in an increasingly integrated world economy. However, developing countries, and especially the poor in these countries, are among the hardest hit by a crisis they had no role in making.[10] Even the emerging market economies and the least developed countries that have improved their economic management are suffering declining output and employment. It is a social as well as an economic crisis. In the period before its outbreak, inflation spread from financial asset prices to petroleum, and then to other commodities including food. The crisis is likely to extract a particularly high toll on developing countries. The difficulty is compounded by the fact that many developing countries have entered into free trade agreements, bilateral investment treaties and World Trade Organization commitments which enshrine the policies of market fundamentalism and limit their ability to regulate financial institutions and instruments or manage capital flows.

22. The main types of agricultural land use in dryland areas are cropland, irrigated land and rangeland. Different land degradation/soil erosion problems occur depending on the type of land use. They are a consequence of inappropriate agricultural production practices and of unsustainable land use, such as unsustainable slash-and-burn agriculture, over-cultivation and overgrazing – often as a result of inappropriate land laws or customs, increases in undesirable plants, deforestation and poor irrigation practices or the overuse or inefficient use of water.[11] These primarily 'home-grown' problems are amplified by droughts. It is not only the climate that causes desertification. Widespread poverty is a contributory factor, and one that is becoming increasingly significant because of population growth.

23. Food insecurity contributes to conflict and terrorism. When the rule of law is absent or private property is non-existent, farmers have little incentive to improve their productivity. As Amartya Sen, the Noble Prize-winning economist, has observed, there is no such thing as an apolitical food problem. While drought and other naturally occurring events may trigger famine conditions, it is government action or inaction that determines their severity, and often even whether a famine will occur. Sen showed that no substantial famine has ever occurred in an independent and democratic country with a relatively free press.[12]

24. People have learned to protect their natural resources with age-old strategies such as shifting agriculture and nomadic herding. However, in recent decades these strategies have become less practical due to changing economic and political circumstances, population growth and a trend towards more settled communities. When land managers cannot or do not respond flexibly to climate variations, desertification is the result. International trade patterns can lead to the short-term exploitation of local resources for export, leaving little profit at the community level for managing or restoring the land. Similarly, the development of an

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[10] Preliminary Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System, New York, 21 May 2009, available at <www.un.org/ga/president/63/interactive/financialcrisis/PreliminaryReport210509.pdf>.

[11] Inadequate drainage and excessive water application are the main causes of salinization. It is estimated that salinization costs farmers USD 11 billion annually in lost income.

[12] Sen, Amartya. "Democracy as a Universal Value", *Journal of Democracy* vol. 10, no. 3 (1999), pp. 3–17.

economy based on cash crops, or the imposition of taxes, can distort local markets and promote overexploitation of the land.[13]

25. Food security is affected by unprecedented price hikes for commodities (basic foods), driven by historically low food stocks. There is a growing demand for bio-fuels, and environmental change such as DLDD is creating growing problems. Inflated international cereal prices have already led to food riots in several countries, while the most vulnerable are also seeing the food aid process threatened by the new economic context.

26. Low productivity, low levels of investment, and land degradation often leading to desertification are responsible for regional poverty and income disparities. The poverty and hunger that are prevalent in sub-Saharan Africa provide poignant examples of this situation. Other critical problems include the inherent problem of water scarcity, tenure considerations and ineffective development policies. Improving this situation requires solutions to a variety of technical and institutional problems, including increasing the levels of investment in appropriate agriculture, alternative land use practices and other appropriate income-generating interventions, as well as designing strategies for risk management and implementing programmes for more equitable distribution of land and income.

27. Some governments neglect subsistence farmers and rural areas in general. The more remote and underdeveloped the area, the less likely the government will be to effectively meet its needs. Many agrarian policies, especially the pricing of agricultural commodities, discriminate against rural areas.

28. A recent UNCCD publication[14] rightly underlines that investment in rural areas and SLM is a local concern, a national interest and a global obligation. It must therefore be given priority at the local level to increase income, improve food security and contribute to poverty reduction; and at the national and global levels to help alleviate hunger and malnutrition, reduce poverty, protect the world's climate, safeguard natural resources and ecosystem services and, in many cases, to preserve cultural heritage.[15]

C. The role of the United Nations Convention to Combat Desertification

29. The UNCCD is mindful that desertification and drought affect sustainable development through their interrelationships with important social problems such as poverty, poor health and nutrition, and lack of food security. The Convention sets out that national action programmes (NAPs) may include, inter alia, the establishment and/or strengthening, as appropriate, of food security systems (article 10, para. 3 (c)).

> "Combating desertification includes activities which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development which are aimed at: (i) prevention and/or reduction of land degradation; (ii) rehabilitation of partly degraded land; and (iii) reclamation of desertified land" UNCCD, article 1, paragraph 1 (b).

30. The recent food crises affect the developing countries to a greater extent and addressing such crises must focus on strengthened cooperation and sustainable investment in

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13 UNCCD. 2008 "The Causes of Desertification", Fact sheet 2, available at <www.unccd.int>.
14 UNCCD. 2009. "Benefits of Sustainable Land Management", op. cit. (note 1).
15 UNCCD, ibid.

combating DLDD. The national policy frameworks to undertake this run through the NAPs – the blueprint for UNCCD implementation at the national level. There have been some positive results. With considerable effort by some developing countries and support from the international community for sustainable methods of resource management and soil cultivation, desertification has been slowed in many parts of the world and in some places even stopped.

31. The United Nations Commission on Sustainable Development (CSD) concluded its session in May 2009 by adopting a "shared vision", including a set of policy options to speed up agricultural development as well as practical measures to address drought, desertification, land use, rural development and lasting development in Africa. Emphasizing the urgent need to increase food security and agricultural development, the CSD stressed that agriculture lay at the centre of sustainable development and farmers must be at the heart of a global "green revolution". Governments and other relevant stakeholders must therefore mobilize the political will to revitalize agricultural sectors in developing countries.

32. A positive resolve to stimulate UNCCD implementation was expressed at the seventh session of the Conference of the Parties in Madrid in September 2007 as Parties to the Convention adopted the 10-year strategic plan and framework to enhance the implementation of the Convention (The Strategy). The Strategy targets the use of effective and practical approaches to SLM with synergy as a systemic approach. The main strategic objectives are: (i) to improve the livelihood of affected populations; (ii) to improve the productivity of affected populations; (iii) to generate global benefits; and (iv) to mobilize resources to support the implementation of the Convention through building effective partnerships between national and international actors.

33. The UNCCD also promotes the enhancement of local ownership of SLM under its five Regional Implementation Annexes through participatory approaches at all stages of the project cycle, and by documenting ongoing learning processes at the country level and sharing lessons learned through an intergovernmental Committee. In the mission of the UNCCD, halting DLDD and promoting environmental rehabilitation should involve vulnerable and marginalized groups by creating opportunities for alternative income generating activities. The long-term sustainability of these projects is dependent on ownership and involvement by these groups at all levels, which is why the NAPs are invited to promote local area development programmes.

34. The ecosystem services provided by SLM fall into three different types: provisioning services for food, fodder, fibre, fuel and water provision; regulating and supporting services for water, carbon and biodiversity; and cultural social services, such as keeping alive cultural and natural landscapes and protecting cultural heritage, valorizing indigenous knowledge and production methods and enhancing ecotourism.

D. Parliamentary contributions to improve food security: Key questions to be discussed

35. It is not only the challenges posed by the financial and economic crisis, but also other global issues such as climate change and food and energy security that clearly call for the international community to take a systematic and global approach to sustainable and socially balanced economic development. The current crisis is much more than an economic crisis – it is a crisis linked to the fundamentals of our societies and the values that underpin them.

36. Parliamentary contributions should be developed to address both the current economic crisis and food security in the drylands.

37. In April 2009, the Inter-Parliamentary Union (IPU) Assembly highlighted the importance of the role of parliaments in cooperation with national governments in trying to reduce the negative impacts of the global financial crisis on the world's most vulnerable, and the importance of cooperation between parliaments and governments to advance the development goals set by the international community.[16] The International Parliamentary Conference on the Global Economic Crisis, held by the IPU in Geneva, Switzerland, on 7–8 May 2009, provided a good road map. The Conference drew some key conclusions and made some important recommendations:

(a) Parliaments have a particular responsibility to ensure transparency and accountability in the economic and financial reform process.

(b) Parliaments have a duty to question ministers and hold them to the strictest possible account for implementing what has been agreed at G20 meetings.

(c) As a response to the crisis there is a need to build an inclusive, green and sustainable recovery, and that will require very significant amounts of funds. All efforts to overcome the crisis must be complemented by a sustainable, socially balanced and fair globalization.

(d) There is a need for reform of international financial institutions. Much closer interaction should be ensured with the international financial institutions in a bid to exercise greater parliamentary oversight.

(e) Parliaments must ensure that the policies and programmes that are developed to address the current crisis take account of gender equality and political participation by women and apply tools such as gender-sensitive budgeting.[17]

38. At the United Nations Conference on the World Financial and Economic Crisis and Its Impact on Development, held in New York from 24 to 26 June 2009, participating Heads of State and Government and High Representatives committed to work in solidarity on a coordinated and comprehensive global response to the crisis and to undertake actions aimed, inter alia, at providing adequate support for developing countries to address the human and social impacts of the crisis, in order to safeguard and build on hard-won economic and

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16 "The role of parliaments in mitigating the social and political impact of the international economic and financial crisis on the most vulnerable sectors of the global community, especially in Africa". Resolution adopted unanimously by the 120th IPU Assembly, Addis Ababa, 10 April 2009, available at <www.ipu.org >.

17 Parliamentary Conference on the Global Economic Crisis, Organized by the Inter-Parliamentary Union, Geneva, 7 and 8 May 2009, <http://www.ipu.org/splz-e/finance09.htm>; Closing Statement by the President of the Conference, Dr. Theo-Ben Gurirab, Geneva, 8 May 2009, available at <http://www.ipu.org/splz-e/finance09/president.pdf>; and Statement by Mr. Anders B. Johnsson, IPU Secretary General, at the Opening Session of UNCTAD Public Symposium, Geneva, 17 May 2009, available at <http://www.ipu.org/Un-e/sp-unctad180509.pdf>.

development gains, including the progress achieved towards the implementation of the MDGs.[18]

39. Parliamentary activities related to food security in the drylands start from three baselines: (1) affected countries have the primary role in combating food insecurity; (2) the participation of affected populations and local communities, particularly women and youth, must be ensured; and (3) developed countries must actively support, individually or jointly, suitable efforts of affected developing countries. They also focus on seven main areas:

(a) Parliaments have a responsibility to work for a food security enabling environment.[19] Policies that improve the security of land use rights are a prerequisite for SLM. Land tenure regimes play a critical role in ensuring the right to land, which includes access to an adequate quantity of land of adequate quality for a viable livelihood. Sometimes land reforms and a more equitable land distribution will be necessary. To maintain the productivity of arable land and top soil fertility, access to water should be secured. Parliaments should look for the establishment or strengthening of food security systems, including storage and marketing facilities, particularly in rural areas, as is required by article 10, paragraph 3 (c) of the Convention.

(b) The enactment of enabling legislation is a key tool for combating desertification, the protection of human rights including the right to food, and environmental governance at the national level. These subjects, however, are rarely discussed in the same parliamentary commissions, and therefore rarely linked in the content of legislation. The complementarity of their field of application is important, and it would be important in the future to include consideration of environmental governance in evolving national laws on food security and access to freshwater in affected countries, as well as vice versa.[20]

(c) The UNCCD is forward-looking in that it promotes the enhancement of local ownership in SLM. Governments or regional and local communities backed or driven by parliamentarians should put issues relevant to SLM on their agendas and approve corresponding ordinances, laws and rules of use. Parliaments and parliamentarians should mainstream SLM into long-term policies and national development strategies.

(d) According to article 10, paragraph 2 (f) of the Convention, NAPs should, inter alia, "provide for effective participation at the local, national and regional 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". Parliaments and parliamentarians should be actively involved in this participatory process starting from the local level, and should require regular review of and progress reports on the implementation of NAPs.

(e) Because of its relevance to food security, poverty reduction and political stability, as well as to sustainable development and the environment, agriculture needs a re-evaluation in the political arena. More countries could benefit if governments and donors were to reverse years of policy neglect and remedy their disinvestment in agriculture and in

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[18] See the outcome document of the Conference at <www.un.org>

[19] UNCCD: Benefits of Sustainable Land Management, op. cit. (note 1).

[20] UNCCD. 2008. Human Rights and Desertification.

rural areas. Parliamentarians in developed and developing countries have to play their roles. Development assistance must be effective, strengthening rather than undermining country efforts to improve governance in agriculture. Agricultural protection in donor countries and subsidized agricultural exports often undermine the assistance available to agriculture in developing countries, creating a governance challenge for donor countries as well as policy incoherence.

(f) With regard to desertification and international cooperation, parliamentarians should influence the following points: (i) country Parties affected by desertification, in collaboration with other Parties and the international community, should cooperate in the framework of subregional and regional programmes to ensure the promotion of an enabling international environment in the implementation of the Convention. Such cooperation should also cover fields of technology transfer as well as scientific research and development, information collection and dissemination and financial resources (UNCCD, articles 11 and 12); (ii) international development cooperation has to be redefined,[21] setting and monitoring the achievement of targets on land improvement while observing the Paris Declaration and the Accra Action Plan[22] as well as complementing the current donor-driven system by collaboration arrangements with all stakeholders, including the private sector, with rural areas in developing countries among the beneficiaries; (iii) parliaments should strive to ensure that food, agricultural trade and overall trade policies are conducive to fostering food security for all through a fair market-oriented world trade system embedded in a sustainable, socially balanced and fair globalization.

(g) Parliaments and parliamentarians should work to ensure good developmental governance.[23]

40. Three key questions arise for parliamentary deliberation on areas for strategic action:

(a) How can parliaments and parliamentarians actively influence relevant local, national and international processes and actors in adequately addressing desertification/land degradation issues and communicate them as highly important for achieving food security in the drylands?

(b) How to raise awareness and provide for incentives to enhance sustainable agriculture and rural activities in the drylands.

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[21] Luc Gnacadja, Address given to the meeting of the Steering Committee of the seventh UNCCD Parliamentarians' Forum, Praia, Cabo Verde, 1 December 2008.

[22] In March 2005, representatives of around 100 donor and developing countries as well as the multilateral organisations adopted the Paris Declaration on Aid Effectiveness. It establishes five core principles: ownership, alignment, harmonization, managing for results and mutual accountability. In September 2008, ministers of developing and donor countries responsible for promoting development and Heads of multilateral and bilateral development institutions endorsed the Accra Agenda for Action, in which it was underlined that: "Country ownership is key. Developing country governments will take stronger leadership of their own development policies, and will engage with their parliaments and citizens in shaping those policies. Donors will support them by respecting countries' priorities, investing in their human resources and institutions, making greater use of their systems to deliver aid, and increasing the predictability of aid flows."

[23] Governance refers to the rules, processes and behaviour by which interests are articulated, resources are managed and power is exercised. Governance includes participation, accountability, efficiency, transparency and coherence as well as capable public institutions and individuals, responsible State management and the rule of law. Functioning democracies perform better in fighting desertification.

(c) How to improve the quality of governance in agriculture in the drylands.

III. Climate change policies

A. Climate change and desertification

41. Climate change, desertification/land degradation and agriculture are inextricably linked. Climate change and global warming are predominantly caused by industrialized countries but currently affect poor people in developing countries disproportionately, particularly in Africa.[24] The poor are overwhelmingly the present victims of climate change, and this situation is likely to continue for the foreseeable future. The impacts of climate change combined with the global economic crisis, rising food prices, energy shortages, ecosystem degradation linked to other human causes and demographic change must be managed in a coordinated manner.

42. In the course of the 21st century, average global temperatures could increase by more than 5°C.[25] The aim of the international community must be to ensure that the global average surface temperature rises by no more than 2°C relative to pre-industrial levels. To this end, it is imperative that global levels of emissions of CO_2 and the other greenhouse gases (GHGs) are reduced. There is a common but differentiated responsibility on all countries to join in appropriate efforts. Like the developed world, people in the poorest countries will have to deal with the consequences of a changing climate. However, there are two important differences: first, developing countries in tropical and subtropical regions will register some of the strongest effects of climate change; and, second, the incremental risks that come with climate change will be superimposed on societies marked by mass poverty and acute vulnerability. While northern governments have the financial, technological and human capabilities to respond to the climate change-related risks facing their citizens, developing countries are far more constrained.

43. The major impacts of climate change in developing countries will be on food security and access to water, with changes to rainfall patterns and the length of growing seasons, an increasing number of natural disasters due to extreme weather conditions and an increase in land degradation and desertification. Rising temperatures and falling or erratic levels of rainfall will exacerbate drought in drought-prone arid lands, threatening crop yields as well as increasing the uncertainties for pastoralists in feeding and watering their animals. Under the present scenario of natural resource scarcity it is crucial to maintain the best productivity possible for arable land and top soil fertility as a common good for access to water for irrigation.[26]

44. The poor and hungry in the drylands are suffering the most from the double blow of desertification and climate change.[27] According to the Intergovernmental Panel on Climate

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[24] The perverse situation is that, globally, Africa contributes the least to climate change but continues to pay the most for the degradation of the environment. Northern countries remain the greatest polluters and should consequently pay the most, if the principle of "the polluter pays" is applied.

[25] United Nations Development Programme (UNDP). 2007. Human Development Report 2007/2008: Fighting Climate Change, Human Solidarity in a Divided World, New York, UNDP.

[26] UNCCD. 2008. Human Rights and Desertification.

[27] In the Millennium Ecosystem Assessment, desertification was cited as potentially the most threatening ecosystem change affecting the livelihoods of the poor, <www.millenniumassessment.org>.

Change (IPCC), Africa is viewed as the most at risk from the adverse effects of climate change. Extreme weather causing flooding, drought and desertification is already apparent. Agricultural production, including access to food, in many African countries and regions is projected to be severely compromised by climate variability and change. Climate change is projected to impinge on sustainable development in most of the developing countries of Asia as it compounds the pressures on natural resources and the environment associated with rapid urbanization, industrialization and economic development. In the drier areas of Latin America, climate change is expected to lead to salinization and desertification of agricultural land. The productivity of some important crops is projected to decrease and livestock productivity to decline.

45. Climate change is not a one-off catastrophe but a slowly unfolding disaster. It threatens to destroy the efforts for and achievements of sustainable development in a wide range of areas and thus to jeopardize the achievement of the MDGs.

46. Climate change will put further pressure on soil quality and will increase the risk of desertification and land degradation. Soil is part of the climate change problem, but can and must also be part of the solution. It is imperative to support land use practices that help to maintain and – if possible – increase soil organic matter as a major contributor to soil fertility and the second biggest carbon pool on the planet after the oceans.[28]

47. Desertification and climate change must be addressed in a synergetic fashion as part of an integrated approach to achieving sustainable development for all. Combating desertification needs to be recognized as an entry point to addressing poverty reduction and ecosystem protection.

B. Climate change policies: Adaptation and mitigation

48. Adaptation refers to adjustments by natural or human systems in response to actual or expected climatic stimuli or their effects in order to moderate harm or exploit beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation. Mitigation means structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards and specifically refers to a human intervention to reduce the sources or enhance the sinks of GHGs.[29]

49. Adaptation relates not only to technical measures aimed at infrastructure, such as higher flood dams, levees and landslide barriers, but also to enabling activities and frameworks that enhance ecosystems' resilience in order to cope with altered climatic conditions. Examples of adaptation measures include revegetating slopes threatened by flood erosion and maintaining the natural biodiversity of ecosystems to reduce their vulnerability.

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[28] These are the main conclusions of the EU-UNCCD Conference "Climate change: Can soil make a difference?" held in Brussels on 12 June 2008. The full presentations are available at <http://ec.europa.eu/environment/soil/conf_en.htm>.

[29] For definitions of relevant terms see "The climate change mitigation and adaptation information kit, 2008", available at<www.globalmechanism.org/dynamic/documents/document_file/ccesinfokit_web-1.pdf>; United Nations Environment Programme, "Glossary", available at <www.unep.org/geo/geo4/report/Glossary.pdf>; and Intergovernmental Panel on Climate Change, "Glossary", available at <www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf>.

Land degradation control has major global benefits as a vehicle to a future of simultaneously achieved conservation of biodiversity, control of climate change and prevention of land degradation.[30] Agriculture is offering promising opportunities for mitigating GHG emissions through carbon sequestration, sustainable soil and land use management, and biomass production.[31]

50. Climate change can offer new opportunities[32] for productive SLM practices, such as reforestation, improved water management, integrated soil fertility management, conservation agriculture, agroforestry, improved rangeland management, among others, as a result of changing biophysical or market conditions. Many SLM practices can simultaneously achieve both adaptation and mitigation goals, especially those that increase levels of soil organic carbon. SLM represents a preventative approach to climate change that can reduce the need for costly *ex post* coping measures, such as changing crops and livelihoods, clearing new land for agriculture, and providing for environmental refugees.[33] The predicted negative yield impacts of climate change are often dwarfed by proven positive yield impacts of improved land management. In addition to the positive impacts on average yields, many SLM practices reduce the variability of agricultural production (e.g., soil and water conservation and organic practices that improve soil moisture-holding capacity or integrated pest-management practices that reduce vulnerability to pests), while others can help to diversify agricultural income (e.g., agroforestry with non-timber tree products or crop rotation). A combination of SLM practices can be used to combat the different manifestations of climate change. Despite the large potential for SLM to contribute to climate change mitigation and adaptation in sub-Saharan Africa, little of this potential is currently being realized. SLM practices are being adopted on only a small percentage of agricultural land in sub-Saharan Africa. Degradation of agricultural land and expansion of agriculture into forests, woodlands and bush land are continuing at a rapid pace.

51. Mitigation is also very important. SLM has significant potential to mitigate climate change – not only by afforestation and reducing deforestation. Soil carbon sequestration, through restoring organic soils and degraded lands, conservation agriculture and grassland management can contribute significantly to reducing emissions. The total global technical mitigation potential of SLM is estimated to account for more than half of GHG emissions in 2000, with a large share in Africa and developing Asia.

52. Carbon sequestration, carbon conservation, carbon substitution and GHG reduction or avoidance are GHG mitigation schemes related to the avoidance of land degradation and desertification. They have the potential to generate carbon credits under the Kyoto markets Joint Implementation (JI), CDM mechanisms or voluntary schemes. Climate change mitigation activities related to the four areas include: (a) forestry, afforestation/reforestation,

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30 Department of Economic and Social Affairs.

31 IFPRI. 2009. "Agriculture and Climate Change: An Agenda for Negotiation in Copenhagen", available at <www.ifpri.org/2020/focus/focus16/focus16.pdf>.

32 TerrAfrica. 2009. "The Role of Sustainable Land Management for Climate Change Adaptation and Mitigation in Sub-Saharan Africa", Executive Summary available at <www.africaclimatesolution.org/features/Land_Climate_Executive_Summary.pdf>.

33 The most recent estimates put the number of environmentally displaced people at anywhere between 17 and 24 million around the world. It is projected that in the period to 2050 there will be 200 million environmentally induced migrants. Brown, O., 2008. "Migration and Climate Change", International Organization for Migration, Geneva, <www.iom.cz/files/Migration_and_Climate_Change_-IOM_Migration_Research_Series_No_31.pdf>.

avoided deforestation, sustainable forest management; (b) the agriculture sector, cropland and grazing management, soil conservation measures, fertilizer switches or management to reduce emissions of nitrous oxide, bio-digestion and other methane-based projects as well as livestock management; (c) energy-related projects in the rural and agriculture sectors, sustainable use of biofuel/bioenergy and fuel-switch projects contributing to the mandate of the UNCCD, small hydro-electricity projects possibly combined with forestry activities such as watershed protection and energy efficiency; and (d) biodiversity, watershed and soil protection, and biodiversity conservation.[34]

53. The IPCC emphasizes the value of a mix of strategies that includes mitigation, adaptation, technological development to enhance both adaptation and mitigation, and research on climate science, impacts, adaptation and mitigation.[35] It stresses the urgency of effective climate protection, refers to the narrow remaining time horizon of two decades for limiting mean temperature increases to 2°C and demonstrates how known technologies can reduce GHG emissions. Multiple technologies must be applied. These technologies and instruments include reforestation, carbon emissions rights trading, renewable energy resources such as wind and solar power, electricity generation through biomass, carbon capture and storage, waste composting, and especially improving efficiency in energy use.

54. Even the poorest countries must cut carbon emissions and should probably start preparing for a low-carbon economy.[36] To this end, they require strategies, funds and international partnership. It is not just about China, India and Brazil – the fight against global warming will not be won unless economically less powerful countries engage in climate protection. Starting right now, all development strategies will have to be low-carbon strategies. The keys to success lie in energy efficiency, conservation of resources and more prudent lifestyles.

C. Climate change related policies: Key parliamentary questions

55. The interlinkages between land/soil and climate change are significant and should be better reflected in policymaking processes. Combating desertification needs to be recognized as an entry point to address poverty reduction and ecosystem protection. Soil can make a difference in the fight against climate change.

56. The notion of security now encompasses assuring people of freedom from want. It recognizes sustainable development as part of this process. The land/soil security concept claims that the processes of DLDD greatly affect the people's livelihood, and in extreme cases put the lives of people in danger. Land degradation can, in worst-case scenarios, undermine national and regional security. A study commissioned by the UNCCD on land/soil security issues recommends the following:[37]

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[34] UNCCD/Global Mechanism. 2008. "The climate change mitigation and adaptation information kit" available at <www.global-mechanism.org/dynamic/documents/document_file/ccesinfokit_web-1.pdf>.

[35] IPCC Working Group II, Fourth Assessment Report, Summary for Policymakers, 6 April 2007; and IPCC Working Group III, Fourth Assessment Report, Summary for Policymakers, 4 May 2007, <www.ipcc.ch>.

[36] Messner, D., "Even Poorest Countries Must Cut Carbon Emissions", *Development Cooperation*, vol. 36 (2009), pp. 260–261. Messner is director of the German Development Institute in Bonn and deputy head of the German Advisory Council on Global Change.

[37] Brauch, Hans Günter and Spring, Úrsula Oswald. 2009. "Securitizing the Ground: Grounding Security", *Desertification, Land Degradation and Drought Issue Paper*, no. 2, available at <www.unccd.int/knowledge/docs/dldd_eng.pdf>; and WBGU/German Advisory Council on Global

(a) Policymakers and institutions need to act at the global level to promote the longer-term sustainability of ecosystem services. Their cooperation with regional organizations and national actors would ensure concrete measures to enhance soil security.

(b) The active involvement of stakeholders in a bottom-up approach is equally important. Women in particular must become involved, using their expertise on local soil conditions.

(c) Scientific and technical knowledge must be used to raise awareness of environmental degradation and climate change. Global partnerships between scientists, international agencies, civil society organizations, and governments and parliaments are key to recognizing DLDD as a mounting threat to security.

57. Implementation of the Convention must be embedded into core development policy frameworks defined at the international as well as the regional, national and local levels. These should include, but not be limited to, the protection and valorization of global public goods and the MDGs, in particular poverty eradication (MDG 1) and environmental sustainability (MDG 7). Implementation should be better connected with efforts to target climate objectives, human security, migration and conflict prevention.

58. The enactment of enabling legislation is a key tool for combating desertification, the protection of human rights including the right to food, and environmental governance at the national level.

59. According to the Executive Secretary of the UNCCD, Mr. Luc Gnacadja, bringing agricultural land use into the realm of implementation mechanisms on climate change could redefine the concept and content of international development cooperation. The current country-driven system would be complemented by collaboration arrangements between private sector stakeholders, and rural areas in developing countries would be among the beneficiaries. The political implications could be enormous, as could the increase in the volume of financial and technological transactions targeting agriculture as well as the improvements in the livelihood of the most vulnerable.

60. Land and soil can make a difference in the fight against climate change. Increased attention to the linkage between land and soil and climate change would not only enrich the substantive and conceptual debates on effective means for carbon sequestration, but also provide a new and interesting platform for developing countries to enter into the adaptation and mitigation agendas, considering that for many of them soil is their single most important natural resource. One concrete way forward could be to expand the coverage of the Clean Development Mechanism to agricultural land use, to include projects focusing on carbon sequestration in soil.[38]

61. The final report of the Commission on Climate Change and Development was published in May 2009. Its main conclusions, relevant for the fight against land degradation too, are:

Change. 2007. "Climate Change as a Risk", available at <www.wbgu.de/wbgu_jg2007_engl.pdf>.

[38] UNCCD. 2009. "Desertification and climate change", *UNCCD Thematic Fact Sheet Series,* no. 1, available at <www.unccd.int/documents/Desertificationandclimatechange.pdf>.

(a) Climate change presents humankind with a historic opportunity to make development more sustainable, encompassing a low-carbon economy. For the poorest communities the priority is to build people's adaptive capacity and resilience – their ability to manage risks and shocks. In richer environments, adaptation will emphasize technical measures that might not have been necessary without climate change. In practice, each country will require a mix of human and technical measures – the challenge will be to get the balance right.

(b) Institutions have a crucial role to play everywhere. Climate change actions, development planning and disaster risk reduction must come together. This requires that they are led from the highest political and organizational level. Participatory democracy, functioning institutions and transparency are needed at all levels for effective adaptation.

(c) The mobilization is required now of new and additional climate adaptation money – but not at the expense of ongoing development programmes. Resources are essential, but getting adaptation right is not only about money. In this context, reducing emissions from deforestation and degradation offers a promising mechanism for delivering mitigation. By additional, the Commission means additional to the existing commitment, as stipulated in the Millennium Declaration, that official development assistance (ODA) should constitute at least 0.7 per cent of GNP for the developed countries. The Commission found the current proliferation of financing mechanisms for adaptation problematic.

(d) Priority should be given to the most vulnerable countries – African and the Small Island states in particular.[39]

62. The UNCCD cannot be viewed in isolation from other efforts to promote sustainable development. The integration of environmental activities into the broader development framework is at the heart of MDG 7. The text of the Convention refers frequently to sustainable development, climate change, biological diversity, water resources, energy sources, food security and socio-economic factors. The Convention works as a multilateral soil framework for adaptation, mitigation and resilience in combating the effects of climate change.

> "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 United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, in order to derive maximum benefit from activities under each agreement while avoiding duplication of effort. The Parties shall encourage the conduct of joint programmes, particularly in the fields of research, training, systematic observation and information collection and exchange, to the extent that such activities may contribute to achieving the objectives of the agreements concerned" UNCCD, article 8, paragraph 1.

63. Emphasizing the need for a global response to the global problems of desertification and land degradation through concerted efforts by the UNCCD, the CSD called in May 2009 for actions to strengthen the institutional framework for policy implementation and to take practical measures in those efforts. It called on governments to use the Global Environment

[39] Commission on Climate Change and Development. "Closing the Gaps"' Declaration and Executive Summary, available at <www.ccdcommission.org/Filer/report/CCD_DECLARATION_EN.pdf>.

Facility (GEF), among other multilateral organizations, to integrate desertification and land degradation into national sustainable development plans. It underlined that further actions are needed to promote scientific research on desertification and drought, strengthen existing disaster management capacities, and encourage developed countries to provide, in the fifth replenishment of the GEF, adequate, timely and predictable financing for those efforts.[40]

64. Desertification and land degradation issues deserve global policy attention and the needs of drylands must be fully integrated into the Copenhagen Protocol. Soil should be included as a mandatory accounting category for industrialized countries in any post-Kyoto agreement. Jeffrey Sachs, among others, argues that there is a need to tackle soil protection and SLM in the post-Kyoto treaty.[41]

65. In June 2009, the UNCCD organized a one-day event for climate change negotiators to consider in-depth the linkages between climate change and DLDD. Two findings should be taken up:

(a) There are three justifications for the inclusion of adaptation measures for the drylands communities in the new climate change agreement: first, drylands communities are classified as the poorest of the poor and are therefore unlikely to be able to bear the added cost of response to the longer and more intense droughts precipitated by climate change; second, the carbon footprint of dryland communities is among the lowest in the world; and, third, in the light of their socio-economic condition, it is likely that few have set in place any adaptation efforts.

(b) There is a strong need for the recognition of soil carbon restoration in degraded areas, action in agriculture and increased synergies between the Rio conventions as potential approaches to enhance climate change mitigation. To this end, the inclusion of investment measures that promote soil carbon sequestration in degraded lands and for agriculture in the portfolio of finance mechanisms must be envisaged in the post-Kyoto agreement now under negotiation.[42]

66. Maintaining functioning ecosystem services is a prerequisite for SLM. SLM has great potential for the preservation and enhancement of ecosystem services in all land-use systems. Degradation of water, soil and vegetation, as well as GHG emissions contributing to climate change can be limited by SLM practices that simultaneously conserve natural resources and increase yields. SLM offers a cost-efficient contribution to climate protection and is essential to achieving the MDGs and global food security. The initiative for a Global Green New Deal in Copenhagen should be supported on the condition that SLM becomes an integral part of it and of climate protection strategies.[43]

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40 <www.un.org/esa/dsd/newsmedi/nm_presrele_17.shtml> and <www.un.org/News/Press/docs//2009/envdev1052.doc.htm>

41 Sachs, J., Video Keynote Address on Land Day, 6 June 2009, Bonn, Germany, available at <www.unccd.int/publicinfo/landday/sachs.php>.

42 UNCCD. 2009. Report on Land Day, <www.unccd.int/publicinfo/landday/menu.php>.

43 The July 2009 G-8 Summit declaration "Responsible Leadership for a Sustainable Future" referred to land degradation. The Declaration states: "We are deeply concerned about desertification and land degradation in drylands, as both causes and consequences of climate change. . . . We will work with developing country partners to integrate effective Sustainable Land Management (SLM) into relevant cooperation programmes and assist them in integrating SLM into national development plans and policies and national climate change mitigation and adaptation strategies".

67. Biofuels could play an important role in addressing GHG emissions, depending on their production pathway. In the "food vs. fuel" debate, biofuels have been demonized as a driver of hunger. Closer examination shows a more complicated situation, but it is clear that the potential for biofuels to mitigate climate change and bring about development is not as great as was once believed.

68. There is a need for a high-level commitment at the level of cabinets and parliaments.[44] There are generic lessons to be drawn from existing examples of decentralization and the integration of environmental concerns. Regular evaluation is necessary to close the gap between rhetoric and hard action in sectoral strategies. This can be performed by regular reporting to parliament or the cabinet on progress achieved in implementing plans. In some countries, the national audit office is mandated to audit and report on environmental and sustainable development performance as well as the financial management of their respective governments. Canada has appointed an independent Commissioner of the Environment and Sustainable Development in the Office of the Auditor-General, while New Zealand has established an independent Parliamentary Commissioner for the Environment.

69. In April 2009, the IPU Assembly adopted by consensus a resolution on "Climate Change, Sustainable Development Models, and Renewable Energies".[45] The Assembly called for global action on climate protection, careful stewardship of valuable resources and worldwide sustainable development, and identified these as key challenges of the 21st century to be met by developed and developing countries acting together with genuine political will. It emphasized that land-use changes and deforestation – responsible for approximately 20 per cent of anthropogenic emissions of GHGs – can also lead to soil erosion and biodiversity loss, and recognized that renewable energy sources are a significant means of promoting low-carbon power generation. The IPU called on parliaments and parliamentarians to understand that they bear a special responsibility for the protection of natural resources and for the sustainable development of our planet. It called on parliaments in the developed countries to urge their governments to honour their commitment to allocate 0.7 per cent of GNP to ODA, as stipulated in the Millennium Declaration. It encouraged both developed and developing countries that produce environmentally thoughtful technologies to promote the transfer of technology to developing countries in order to raise environmental, health and living standards in those countries, and to coordinate the pursuit of environmental, economic and development objectives.

70. The following key questions arise for parliamentary deliberation on areas for strategic action:

(a) How to bring SLM into the realm of implementation mechanisms in the context of climate change and how to ensure that land and soil will be fully considered in the post-Kyoto agreement.

(b) How SLM could benefit from the relevant financing opportunities under climate change processes.

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44 UNEP. 2007. "Global Environment Outlook", available at <www.unep.org/geo/geo4/report/GEO-4_Report_Full_en.pdf>.

45 The resolution is available at <www.ipu.org/conf-e/120/120-2.htm>.

(c) How to implement the UNCCD and to link it better with efforts to accomplish relevant objectives under climate change processes, and efforts to promote human security, tackle forced migration and prevent conflict.

D. Conclusion

71. For all those interested in combating desertification and land degradation, promoting food security and tackling climate change are high on the agenda. Parliamentarians meeting in Buenos Aires in September 2009 in parallel with the ninth session of the Conference of the Parties to the UNCCD are invited to discuss the questions raised above and to define avenues for appropriate political activities.

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