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Priority theme: The effects of climatic variations and human activities on land degradation: assessment, field experience gained, and integration of mitigation and adaptation practices for livelihood improvement

Reports submitted by Parties on the effects of climatic variations and human activities on land degradation: assessment, field experience gained, and integration of mitigation and adaptation practices for livelihood improvement

Note by the secretariat*

Summary

The priority theme for discussion by the Committee on Science and Technology at its eighth session will be “The effects of climatic variations and human activities on land degradation: assessment, field experience gained, and integration of mitigation and adaptation practices for livelihood improvement”. In response to an invitation from the Conference of the Parties to Parties and accredited organizations, two Parties and one organization prepared reports on this theme and submitted them to the secretariat. This document presents a short summary of the main conclusions and recommendations of the submissions; the submissions themselves are contained in document ICCD/COP(8)/CST/MISC.1.

* The submission of this document was delayed due to the short time available between the fifth session of the Committee for the Review of the Implementation of the Convention and the eighth session of the Conference of the Parties.

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I. Mandate

1. The Conference of the Parties (COP), by its decision 20/COP.7, decided that the priority theme for discussion by the Committee on Science and Technology (CST) at its eighth session will be “The effects of climatic variations and human activities on land degradation: assessment, field experience gained, and integration of mitigation and adaptation practices for livelihood improvement”. The COP encouraged Parties and accredited organizations to prepare concise reports concerning this priority theme and to transmit them to the secretariat no later than six months before the next session of the CST. The secretariat received three submissions on this item: two from Parties (Mongolia and Bulgaria) and one from the Sahara and Sahel Observatory.

2. A short summary of the main conclusions and recommendations of the submissions is presented below and the submissions are contained in their entirety in document ICCD/COP(8)/CST/MISC.1.

II. Introduction

3. One submission presented the overall effects of climate variability and human activities on land degradation, citing field experiences gained on livelihood improvement. One submission focused more on the effects of human activities on soil degradation and the field experience gained in the mitigation of these effects. And one submission focused on the effects of climatic variations on land degradation and how adaptation is interrelated with sustainable livelihood improvement and reduction in the vulnerability of the rural populations of the dryland areas.

4. The reports recognized the strong effects of global changes on land degradation and the links between human activities and the degradation processes. They placed the land degradation process at the heart of the rural development policy of their area of activities and region. They stressed that mitigation and adaptation for livelihood improvement cannot be achieved without an integrated approach by the social, economic and environmental drivers of change. In this endeavour, they presented a number of concrete field experience gained.

A. Social and institutional needs in the context of changes of climate variability and human activities

5. The shifts of the production systems and policies that have occurred in the past 20 years, and the impact on land degradation, have been highlighted. There has been a continuous and iterative process of changing policies for the development of measures for adaptation to and mitigation of land degradation.

6. One contribution underscored the importance of involving local communities in addressing the reversal of the land degradation process. Loss of traditional knowledge has been implicated in the cause and effect debate at the national level. The report advocated developing a community-based approach to the restoration of traditional management systems. Establishment of proper socio-economic norms in development, in decentralization, and in increasing participation of rural community can be helpful to increase the interest and involvement of communities, and the share of experience and lessons learned, and to achieve a strengthened

view of the government strategy. In this regard, it is necessary to develop adapted structures (groups, cooperatives or legal bodies) for the participation of the communities.

7. Two contributions emphasized the need to have an adequate legislative framework so that adaptation and mitigation measures can be effectively implemented. This framework should be accompanied by law enforcement, higher transparency of laws and better education (through workshops, seminars and trainings organized to educate and promote law knowledge in community level). One contribution also insisted on the need to raise responsibility of the users of the land through, for instance, ownership.

B. Monitoring systems, a key for adaptation and mitigation

8. The contributions stressed that in order to develop mitigation and adaptation for livelihood improvement, it is necessary to have a comprehensive monitoring system. This monitoring system should allow better understanding of the processes of land degradation, including the effects of climatic variability and human activities, and of the efficiency of the activities undertaken to adapt and mitigate the effects of climate variability and human activities on land degradation. In this endeavour, one submission underlined the importance of putting national action programme activities into a time frame and of elaborating indicators to measure its performance of the NAP. The need for long-term monitoring was also highlighted. This monitoring should be accompanied by the development of adequate knowledge management tools for sharing experiences and lesson learned, and transferring technologies.

C. Livelihood improvement in the context of global change

9. The contributions recalled the importance of developing alternative livelihoods in order to adapt to and mitigate the effects of land degradation. More specifically, adaptation is recognized as a powerful tool for reducing vulnerability, including through enhanced livelihoods.

10. One contribution put emphasis on the similarities between the fight against desertification and adaptation to climate change. In fact both imply reducing the vulnerability of the affected populations through social activities (such as empowerment, law enforcement, gender involvement or participation), economic development (through developing alternative livelihoods or improving market access) and ecological interventions (such as water harvesting techniques, development of adapted seeds, small-scale irrigation systems, sand dune fixation and prevention of soil degradation).

11. The importance to work towards the integration of mitigation and adaptation practices in order to sustain livelihoods in regions experiencing severe land degradation and desertification was also underscored. For instance it would be useful to elaborate more comprehensive, climatically and environmentally sound agricultural methods. One other way proposed is to cross-match the reduction of social and ecological vulnerability with traditional and new adaptation modes.

12. The documents underlined the emergence of new forms of adaptation and recognized the relevance of other older techniques. One contribution highlighted the predominant social component of adaptation (involving solidarity and migration mechanisms) and the need to take

this characteristic into account when developing related policies. The documents also recalled that in the context of global change, the observed and expected number of disasters, such as droughts, pocket droughts, flash floods or cold events, are increasing. In this context, priority is given to the development of early warning system and a culture of prevention that are considered more cost-effective than rehabilitation or restoration activities after the disaster.

13. The importance of soils as a main source of livelihood was highlighted, as was the need to carefully monitor the trends of their state and manage their use, in order to ensure the sustainability of the ecosystem services they provide.

D. Science and capacity-building for adaptation and mitigation

14. The various contributions insisted on the importance of science and technology for the development of adaptation and mitigation towards livelihood improvement. For instance, the development of bioengineering science, the need for targeted research on long-term study plots, the need to better understand the impacts of different types of land use in the context of the ecosystem dynamic and the need for scientific data for the monitoring of the state and trends of soils, are all underlined.

15. Capacity-building was highlighted several times as a prerequisite for successful implementation of adaptation and mitigation measures for improving livelihoods. This includes not only the development of an adequate legal and political framework and an institutional strengthening with local community participation, but also human resources development and awareness building and education at all levels of society. More specifically, the contributions mentioned promoting ecological education, promoting traditional knowledge as well as modern technologies, developing technology transfer, and increasing awareness in natural resources management.

III. Recommendation

16. The CST may wish to discuss in depth the priority theme during the session and recommend further work on specific areas addressed in the submissions, such as sustainable soil use, adaptation and land degradation, or sustainable rangeland management.
