19 November 2012

English only

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Subsidiary Body for Implementation
Thirty-seventh session
Doha, 26 November to 1 December 2012

Item 10 of the provisional agenda
Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change to enhance adaptive capacity[1]
- Activities to be undertaken under the work programme

Views and information from Parties and relevant organizations on the possible elements to be included in the recommendations on loss and damage in accordance with decision 1/CP.16

Submissions from Parties and relevant organizations

Addendum

1. In addition to the three submissions from Parties and a United Nations organization contained in document FCCC/SBI/2012/MISC.14, six further submissions from Parties and United Nations organizations have been received.[2]

2. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced* in the language in which they were received and without formal editing.

3. In line with established practice, the submissions received from non-governmental organizations have been posted on the UNFCCC website.[3]

[1] Decision 1/CP.16, paragraphs 26–29.

[2] Also available at <http://unfccc.int/5902.php> and <http://unfccc.int/3714.php>.

* These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

[3] <http://unfccc.int/3689>.

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* This submission is supported by Albania, Bosnia and Herzegovina, Croatia, Montenegro, Serbia and the former Yugoslav Republic of Macedonia.

Paper no. 1: Bolivia (Plurinational State of), Ecuador, China, El Salvador, Guatemala, Thailand, Philippines and Nicaragua

UNFCCC- Subsidiary Body of Implementation

Theme III – The Role of the Convention in enhancing the implementation of approaches to address loss and damage associated with the adverse effects of climate change

(Bolivia, Ecuador, China, El Salvador, Guatemala, Thailand, Philippines, and Nicaragua)

1. Context

Developing countries require systematic consideration and support from Annex II Parties in taking appropriate action on loss and damage from the adverse effects of climate change. Loss and damage from the adverse effects of climate change is the unfortunate result of developed country Parties' insufficient ambition in addressing the historical accumulation of greenhouse gases in the atmosphere and in achieving the objective of the Convention. The scope of loss and damage related to the adverse effects of climate change ranges from that incurred from climate variability and intensity, climate-related extreme events, to slow-onset events – steadily incremental changes in climate that goes beyond the natural weather variability which cause loss and damage from the adverse effects of climate change to systems upon which humans rely in order to live and flourish. Main economic sectors face growing climatic stressors and could become unviable, and livelihoods and decent living standards are in jeopardy. Ultimately loss and damage from the adverse effects of climate change can result in lost development opportunities, non-economic losses, and a barrier to achieving sustainable development. Therefore, a process to address loss and damage from the adverse effects of climate change needs to be developed under the Convention, with clear roles in the near-term assigned to the Adaptation Committee, consideration of the matter should be taken up also under the financial mechanism, and a structured discussion to establish institutional arrangements for an international mechanism to address loss and damage associated with the adverse effects of climate change.

Adaptation to climate change and addressing loss and damage to the adverse effects of climate change have multiple synergies, overlaps and are not necessarily separate. They can both build on disaster risk reduction approaches. However, the loss and damage from the adverse effects of climate change concept is "beyond adaptation", is additional to adaptation, focusing on challenges of both identifying and addressing the instances when adaptation is not longer possible. These instances may arise due to sudden onset events, slow onset climatic processes which cause loss and damage, and/or the combination of various sudden onset and slow onset processes leading to crossing tipping points in socio-ecological systems. The combination of these events might create chain-reactions, where, for example, populations begin moving away from certain areas as to slow-onset salinization of aquifers accelerated by extreme storms render their homelands inhabitable. A range of approaches already exist to address loss and damage from the adverse effects of climate change, but these are insufficient to prevent and manage the sweeping scale of real and potential future "residual" loss and damage from the adverse effects of climate change. Approaches to address loss and damage require further action, particularly those associated with slow-onset impacts, including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.[1]

[1] Paragraph 25

2. UNFCCC principles and provisions relevant to the discussion on Loss and Damage from the adverse effects of climate change

The UNFCCC is the relevant policy forum for discussing loss and damage from the adverse effects of climate change. Loss and damage from the adverse effects of climate change is directly related to the successful or unsuccessful fulfilment of the objective of the Convention. The Convention should therefore take the lead in addressing it and coordinate work on loss and damage from the adverse effects of climate change. An institutionalized process to address loss and damage from the adverse effects of climate change needs to be put in place, with roles assigned to the Adaptation Committee, and consideration of the matter taken up also under the financial mechanism.

The Convention contains relevant principles for addressing loss and damage from the adverse effects of climate change that should be taken into consideration as Parties debate next steps on this matter. Annex II Parties have committed to provide and facilitate financial and technical support for developing countries adaptation efforts.

3. The UNFCCC and action at the international level: What is needed?

Addressing loss and damage from the adverse effects of climate change will require action at the international level. While this can make use of institutions and mechanisms that already exist under the Convention, the nature of the issues requires additional efforts and institutions to systematically consider and address the needs of developing countries. The following sections identify principal types of action that must be undertaken under the Convention, which can also be implemented through an international mechanism. Action is required, inter alia, in the following three key areas: 1) Provide financial assistance, including long term financing for loss and damage from the adverse effects of climate change; 2) Promote coordination and cooperation on addressing technical and other capacity needs related to adaptation action, including loss and damage from the adverse effects of climate change; and 3) Support approaches to address loss and damage from the adverse effects of climate change with support by Annex II countries to developing country Parties.

3.1. Provide financial assistance, including long term financing for loss and damage from the adverse effects of climate change

The Convention has established clear provisions and obligations for developed country Parties to address the impacts and special needs and concerns of developing countries, and especially particularly vulnerable developing countries, in the areas of funding, technology and financial instruments, such as insurance. Hence any additional requirements for accessing support should be matched with long-term, scaled-up, predictable, new and additional financial resources, technology and capacity-building, consistent with relevant provisions of the Convention, to undertake the required risk reduction measures and address irreversible loss and damage. The financial mechanism, including the GCF, must complement the existing voluntary DRR and catastrophe aid mechanisms. Types of activities or actions required through long-term finance in developing countries might include:

- Research and development;
- Long-term planning efforts;
- Start-up funds for regional and national risk reduction;
- Establishment of a ‘solidarity fund’ to provide compensation for residual or unavoidable loss and damage from the adverse effects of climate change from slow-onset processes;
- Rehabilitation support to address loss and damage from the adverse effects of climate change;
- Ways to address and provide alternatives or compensation for lost development opportunities.

3.2. Promote coordination and cooperation on addressing technical and other capacity needs related to adaptation action, including loss and damage from the adverse effects of climate change, including:

The Convention has a role to play to ensure developing countries to assess and address loss and damage. Assessments must be based on the impacts of anthropogenic climate change in the coming decades, rather than on current frequencies and severities of extreme events. Vulnerability and risk drivers are not the cause of losses: loss and damage result from the adverse effects of climate change. Damage and loss can be exacerbated due to underlying vulnerabilities, but vulnerability is not the cause of climate change, manifested, inter alia, through changes in climate variability and intensity, extreme events, or slow onset events:[2]

- Enhancing data collection, including establishment of foundational requirements, assessment tools and processes to collect data on loss and damage from the adverse effects of climate change at the appropriate level, in a manner that is sensitive to vulnerable populations;
- Enhancing, upon request, the ability of countries to conduct needs assessment and baseline assessments in order to be able to analyse and make informed decisions on various risk management policies, including enhancing understanding and coordinating assessment methods for slow onset changes at national and regional levels, including through regional cooperation and regional activities;
- Enhancing, upon request, the ability of countries to establish institutional and operational modalities at the local, national and regional level to channel support, including after disasters.

3.3. Support approaches to address loss and damage from the adverse effects of climate change with support by Annex II countries to developing country Parties

- Coordinating and supporting technical assistance and acting as a clearing-house for expertise and good practice relevant to adaptation, disaster risk reduction and specific approaches to address loss and damage associated with the adverse effects of climate change;
- Enhancing understanding, coordination, and cooperation on financial measures that can assist developing countries affected by extreme losses;
- Enhancing understanding, coordination, and cooperation to strengthen social safety networks and resilience-building efforts as part of national and subnational responses to loss and damage from the adverse effects of climate change, including support under the GCF.

4. The role of the Convention with respect to gaps in addressing L&D: Additional work in managing long-term issues and emerging challenges

There are a number of important gaps related to loss and damage from the adverse effects of climate change that must be addressed under the Convention:

- *Slow-onset impacts & events:* While consideration of slow onset processes and their impacts will be incorporated in the work under points discussed above, this area requires further work to enhance understanding of the particular types of damage, set baselines, assess parameters and possibly common methods to address loss and damage from the adverse effects of climate change. The Convention should also consider and support specific actions and measures to rehabilitate particular damage situations, catering for the specific needs that exist in that loss situation.
- *Migration:* The needs of climate migrants (from migration, displacement and planned relocation) require appropriate consideration. Many people will be forced to move from affected areas and adequate provisions will need to be designed in collaboration with relevant international institutions and other stakeholders to consider how to address the issue of migration, displacement, and planned relocation. The COP has the capacity to make recommendations to other international bodies along these lines and accordingly to help coordinate their efforts.
- *Identification of tipping points:* The process under the Convention and the work in this field could also serve to enhance understanding of processes to observe and warn about potential triggering of key

[2]Including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.

tipping points.

- *Non-economic losses:* Both economic and non-economic losses must be addressed by a mechanisms on loss and damage from the adverse effects of climate change. Money cannot adequately compensate people for the loss of life or health, homes and assets, livelihoods, territory, culture, or ecosystems that will result from radical changes in climate, whether at local, regional or global levels.
- *Increasing certainty for longer-term planning and managing variability with insurance-like tools:* The work under the work programme to date has identified opportunities and challenges for developing countries to employ insurance-related measures, including in the regulation of international insurance, and there is a need for the design of tools to address longer-term incremental loss and damage associated with climate change. The Convention could also look into establishing an insurance facility in the medium-term and support regional schemes such as regional risk transfer pools to ameliorate the immediate impacts of extreme weather events, while seeking complementary longer-term regional solutions.

5. An international mechanism to address loss and damage from the adverse effects of climate change under the Convention

A permanent process to address loss and damage from the adverse effects of climate change needs to be developed under the Convention, with clear roles in the near-term assigned to the Adaptation Committee, consideration of the matter taken up also under the financial mechanism, and a structured discussion to establish institutional arrangements. This Mechanism should be put in place to, inter alia, react to damage, rather than to simply raise adaptive capacity.

A mechanism to address loss and damage from the adverse effects of climate change needs to be developed under the Convention, with clear roles in the near-term assigned to the Adaptation Committee, and consideration of the matter taken up also under the financial mechanism. It should be put in place to, inter alia, react to damage, rather than to simply raise adaptive capacity.

A decision in Doha must include the establishment of an international mechanism to address loss and damage. In this context, we recognize, and will continue to do, the importance of regional diversity, and the international mechanism will be not be an homogeneous single approach, which needs to be under the Convention to oversee this complex issue.

An international mechanism on loss and damage from the adverse effects of climate change under the Convention will be a facility to support developing countries' needs with respect to loss and damage from the adverse effects of climate change and can drive enhanced understanding, coordination and cooperation on addressing loss and damage from the adverse effects of climate change around the world. In brief, a mechanism is needed under the convention to provide Parties with means to:

- Assess loss and damage from the adverse effects of climate change: technical capacity and capacity building, finance
- Address loss and damage from the adverse effects of climate change through risk reduction and risk transfer: finance and technical capacity.
- Address residual loss and damage from the adverse effects of climate change, including through specific tools, capacity and finance for assessing and addressing risks and impacts from sudden and slow onset changes.

5.1 Functions of an international mechanism:

- **Assessment of loss and damage from the adverse effects of climate change:**Some foreseeable loss and damage from the adverse effects of climate change may be avoided. Some loss and damage from the adverse effects of climate change is built into the climatic system and will occur regardless of the

nature of mitigation and adaptation practices. The special needs of particularly vulnerable developing countries must be accounted for in assessing the avoidable or unavoidable nature of loss and damage from the adverse effects of climate change. This role could include coordinating and providing guidance on standards for assessing loss and damage like guiding the data collection and analysis activities of relevant institutions.

- **Addressing loss and damage from the adverse effects of climate change, including through a compensation and rehabilitation fund**: Unavoidable loss and damage from the adverse effects of climate change may be addressed through risk sharing mechanisms, but total loss and damage from the adverse effects of climate change will need to be redressed through compensation and rehabilitation mechanisms. This role could include coordinating and supporting technical assistance and acting as a platform for exchange of good practice and expertise relevant to adaptation, disaster risk reduction, resilience building, and risk transfer; establishing and supporting regional networks of collaborative partners within and external to Governments, etc. A fund could be established through the GCF to facilitate approaches to address loss and damage at the regional, and national level.
- **Leadership of the Convention, including for the coordination of work on loss and damage from the adverse effects of climate change:** The Convention could under this mechanism take systematic efforts to support responses to slow-onset damage, link with UN institutions working on migration, link with other UN Convention processes such as the CBD and the CCD, and other UN and international organizations as appropriate.

Loss and damage from the adverse effects of climate change is directly related to the successful or unsuccessful fulfilment of the objective of the Convention; therefore, the Convention process should take the lead in addressing it and coordinate work on loss and damage both inside and outside the Convention.

5.2. Governance

This will be governed by the COP, which shall consider and decide if establishing a specific expert body under its authority to carry out specific functions is necessary, and provide the mandate accordingly. Additionally, the respective roles of the COP, the subsidiary bodies and other bodies under the Convention require further consideration. The COP shall give political direction, and the subsidiary bodies, including the Adaptation Committee, must contribute at implementation or technical levels as needed. The role of the Convention is to maintain oversight, control, and guidance of the relevant processes. The COP will give further consideration on the kind of framework needed at the national and international level, particularly to ensure that any arrangement is responsive to national circumstances and driven by country needs. At the international level there should be a mechanism to support national decision-making processes, upon request of Parties concerned.

6. Recommendations to the SBI on loss and damage to address the needs of developing countries under the Convention

SBI37 will make recommendations on loss and damage for consideration by COP18. A COP decision should contain several elements, many which have been already outlined by G77 and China during the negotiations at SBI36. The UNFCCC is the relevant policy forum to take concrete action to address loss and damage, both under and outside the Convention, and the COP must exercise its responsibility as such – it contains relevant principles for addressing loss and damage that should be taken into consideration as Parties debate next steps on loss and damage. Considering the role of the Convention, and consistent with the obligations of Parties and international law, the SBI must recommend the following elements for a Doha COP decision:

6. 1 Establishment of an international mechanism on loss and damage and steps for the elaboration of its modalities. Negotiations in Doha must focus on filling the existing gaps in institutional and legal frameworks to address loss and damage, including through an institutional mechanism to address slow-onset impacts and other unavoidable damages. An institutionalized process under the COP to address loss and

damage needs to be put in place, with roles assigned to the Adaptation Committee (AC), and consideration of the matter taken up also under the financial mechanism, including the Green Climate Fund (GCF). Details of this mechanism are contained in Section 5.

6.2 Identification of the role of the Adaptation Committee. The Adaptation Committee has the duty to promote coherence on adaptation. Given the important overlaps and synergies between adaptation and approaches to address loss and damage, the AC can be asked to provide technical support and guidance to the Parties with a view to facilitating the implementation of adaptation activities in a manner that fosters approaches to address loss and damage.

Similarly in performing its role, *inter alia*, in strengthening, consolidating and enhancing the sharing of relevant information, knowledge, experience and good practices, at the local, national, regional and international levels, taking into account, as appropriate, traditional knowledge and practices, the Adaptation Committee could play an active role in providing technical support and guidance to the Parties on some of the work remaining specific to loss and damage. This role could include the elaboration of modalities and technical aspects of an international mechanism to address loss and damage, as well as to provide recommendations to bodies of the Convention and strengthen related work under the Convention.

Additionally, the AC could be requested to play an active role and engage actions necessary outside the Convention, in accordance with its role of promoting synergy and strengthening engagement with national, regional and international organizations, centres and networks, in order to enhance the implementation of adaptation actions, in particular in developing country Parties, including to identify and recommend appropriate actions to address emerging needs and gaps, including outside the Convention. This work could include matters related to engaging relevant stakeholders in advancing agreed actions related to loss and damage, such as other UN institutions and civil society. Some of the issues to consider under this work can be matters related to, *inter alia*, migration, disaster risk reduction, agriculture and fisheries. For example, the AC could engage with the UN International Strategy for Disaster Reduction where parallels might be sought with the governance system for addressing impacts of extreme events and identify common actions on disaster risk reduction and humanitarian intervention as part of a proactive and reactive response to loss and damage.

A particular issue that the could be tasked to the AC in the interim is to further explore the multiple challenges for developing countries in operating catastrophe insurance and alternative non-market instruments. The work under the work programme to date appears to identify this area as a gap. This work could be done in collaboration with the SBI as part of a second phase of the programme of work.

Further, the Convention needs to further consider tipping points, and research to enhance capacity at national level to consider loss and damage in national planning. The work under themes 1 and 2 of the loss and damage work programme has begun to identify and better understand slow-onset processes, and this should continue under the SBI. This work could be continued with inputs of the work on-going in other processes, including Art 5, including to enhance our understanding of tipping elements and tipping points, and possible early warning mechanisms for the potential triggering of key tipping elements, both ecological as well as societal. Based on this enhanced understanding, this collaboration between the SBI Loss and Damage second phase could recommend appropriate actions**.**

6.3 A second phase of the work programme on loss and damage under the SBI. A second phase of the programme under the SBI could help maintain the momentum and focus on some of the emerging issues under the current three themes, particularly employing leadership from constituted bodies and subsidiary bodies. The current work programme has identified opportunities and challenges for developing countries with respect to approaches to loss and damage, many of which have been mentioned in this briefing. For

example, additional work focused on the implementation of approaches to address slow-onset events could be a key element under a second phase of the work programme on loss and damage, including on how insurance and non-insurance tools could be employed to manage adverse effects from slow-onset processes whilst longer-term solutions are being explored. As noted earlier, slow-onset processes will require action and measures to address loss as well as to remediate and rehabilitate damage – to livelihoods, to both natural and managed ecosystems, and other productive resources. The SBI could work to further elaborate approaches to address slow-onset processes, particularly at national level. In this sense, collaboration with the on-going work on the development and implementation of National Adaptation Plans (NAPs) could be timely. Additionally, the SBI could also work in collaboration with experts and stakeholders on how to strengthen social safety nets, such as social security and other measures directed to responding to local and community needs.

Similarly, discussions on the elaboration of modalities for support of NAPs, including on the identification of needs at national level, requires special consideration of elements related to work on loss and damage. The assessment of loss and damage, in particular, could be an element included in the formulation of NAPs, and bodies under the Convention, as well as other experts involved in the modalities, could collaborate in a second phase of the work programme to make loss and damage part of such on-going work.

The SBI could also continue to explore macroeconomic tools to manage loss and damage to create a buffer for developing countries, as well as help the international community better plan for financial needs associated with the additional challenge posed by loss and damage. This work could complement, without pre-empting or replacing the need, the work required for the elaboration of the modalities of an institutional mechanism on loss and damage discussed also in this section.

6.4 Request and recommendations to the Financial Mechanism. The level of funding required to prevent, manage, and compensate for loss and damage related to slow-onset impacts varies greatly from country to country and between regions, although it is clear that overall significant amounts will be needed above and beyond financial needs for adaptation. Therefore, there is an immediate need for consideration of financial resources required related to loss and damage, in order to develop a collective understanding of where overlaps might occur with current adaptation finance and where there may be unique needs. Clearly resources specific for loss and damage will need to be new and additional to existing resources. Discussions on finance for loss and damage must be integrated into on-going processes related to long-term finance.

To fully adhere to the precautionary principle in the context of loss and damage requires the support and implementation of proactive approaches to manage slow-onset climate hazards. Allocation of finance to specific actions related to loss and damage, particularly where synergies with adaptation are not sufficient, must become part of the conversation on long-term finance.

7. Promoting cooperation and coordination outside the Convention

While the UNFCCC is the relevant policy forum to take concrete action to address loss and damage, there are many critical issues that do not fall within its mandate and the scope of its work. Therefore, the extent to which Convention is able to achieve its objective under Article 2 will have consequences for matters outside the Convention, and the Convention should seek to collaborate with other institutions to address such issues. As mentioned before, the AC could be requested to play an active role and engage in actions necessary outside the Convention, in accordance with its role of promoting synergy and strengthening engagement with national, regional and international organizations, centres and networks, in order to enhance the implementation of adaptation actions, in particular in developing country Parties, including to identify and recommend appropriate actions to address emerging needs and gaps. The AC could be charged with carrying out an element of a continued work programme on loss and damage focused on external cooperation and coordination. Such work could include:

7.1 Integrating the work of regional centres and networks. Regional centres and networks could have an important role to play both in the assessment and addressing of loss and damage, enhancing synergies related to research and regionally appropriate mechanisms. The AC could incorporate this coordination into its work plan with regards to the work related to regional centres. The role that some institutions are already playing supporting research, modelling, and decision-making, as well as on project implementation, exemplifies the role that these actors could have both in the context of an international mechanism, as well as under a second phase of the SBI work programme.

7.2 Climatechange-induced displacement, migration and planned relocation. The Adaptation Framework already calls for work on measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at the national, regional and international levels.[3] This work has been identified in several regional meetings as important; adequate support will need to be designed in collaboration with relevant international institutions to consider how to address the issue of migration. Many people will be forced to move from affected areas, including from low-lying islands and coastlines and from areas affected by permanent changes to the ecosystems and other resources on which they depend for their lives and livelihoods. Industrialized countries should do their fair share in helping these people build new lives, and in some instances accept their fair share of the people exiled from their homes and countries by climate change. The complicated issue of displacement, migration and planned requires adequate and considered attention, including further research and collaboration among a range of relevant international institutions. As the COP has the capacity to make recommendations to other international bodies along these lines, the Doha outcome could specifically target this issue and call for joint-discussions with the UN High Commissioner for Refugees and the International Organization for Migration as part of the SBI Loss and Damage Work Programme Second Phase, with collaboration of the AC. Existing international frameworks dealing with issues of displacement and migration will need to be expanded to handle movement resulting from the pressures imposed by slow-onset processes.

7.3 Making international finance respond to loss and damage context. The Convention, as the policy-relevant forum, has the capacity to convene discussions on how financial measures could assist countries in coping with loss and damage, for example deferral of payments to international institutions, debt relief, and other similar measures. Financial shocks and lost development opportunities from the potential for large-scale economic disruption brought on by slow-onset climate change hazards will require significant coordination of international trade and investment flows. Addressing loss and damage resulting from slow-onset processes, in the context of sustainable development, will require different approaches than those used to address financial shocks resulting from extreme events. For example, slow-onset impacts may permanently diminish the tourism industry in many developing countries due to the loss of ecosystems, animal and plant diversity, and other tourist-attracting resources. These issues need to be considered as part of the Loss and Damage Work Programme Second Phase, in collaboration with actors outside the UNFCCC, and could be systematically addressed through the International Mechanism.

[3] Paragraph 14(f).

Paper no. 2: Cyprus and the European Commission on behalf of the European Union and its member States

SUBMISSION BY CYPRUS AND THE EUROPEAN COMMISSION ON BEHALF OF THE EUROPEAN UNION AND ITS MEMBER STATES

This submission is supported by Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Montenegro and Serbia.

Nicosia, 5 / 11 / 2012

Subject: Work programme on loss and damage (SBI): Views and information taking into account the outcomes of the implementation of the work programme on loss and damage prior to the submission on the possible elements to be included in the recommendations on loss and damage in accordance with decision 1/CP.16.

Introduction.

The EU welcomes this opportunity to share its views on the possible elements to be included in the recommendations on the issue of addressing loss and damage associated with the adverse impacts of climate change[1].

The EU recalls the findings of the IPCC Fourth Assessment Report that noted that warming of the climate system is unequivocal, and that delay in reducing emissions significantly constrains opportunities to achieve lower stabilization levels and increases the risk of more severe climate change impacts.

The EU recognises that with climate change impacts becoming increasingly evident, there is a need to address the risk of loss and damage associated with climate change impacts including slow onset impacts, as has been stated in decisions 1/CP.16 and 7/CP.17.

We note with appreciation the significant work that has been undertaken under the work programme to date, and in particular the wealth of knowledge generated through the regional workshops. It was encouraging to learn about the on-going efforts and initiatives at the local, national and at the regional level to enhance the preparedness to address and respond to climate related risks and as such reduce loss and damage, in a broader context of disaster risk management. In all regions and countries, many of the approaches discussed were tailored to their own circumstances, which in some cases were focused on specific sectors, integrated in the development plans and strategies, or focused on specific vulnerable areas and regions. However, it was evident that many of these efforts were not undertaken against the backdrop of explicitly addressing the risk of loss and damage associated with climate change and in many cases activities were not adequately coordinated with other initiatives to manage risks.

[1] FCCC/SBI/2011/L.35/Add.1

The work programme to date has confirmed the fact that no one size fits all with regards to the range of approaches taken. In this regard, when addressing loss and damage related to climate change, the EU acknowledges the need to use a combination of approaches along the entire risk management continuum and tailored to specific country needs and circumstances, given that several factors contribute to the exposure to climate related risks, including levels of poverty, settlement patterns and governance. It also highlighted the benefits of stakeholder involvement and of exchanges at the regional level as well as between regions.

Contextualising loss and damage associated with the adverse effects of climate change.

The EU recognises that even if we limit climate change to below 2 degrees, countries will still need to address the risks associated with the concentrations of greenhouse gases in the atmosphere and their associated impacts. It is thus our view that understanding the risks of loss and damage associated with climate change can play an important role to inform, enable and help direct efforts to address climate change in a comprehensive manner including both mitigation and action to build adaptive capacity in order to build resilience and transform economies to become more climate resilient.

While much of the discussion in the work programme has focused on what is meant by “loss and damage,” the case studies presented in the region have focused on different interventions to manage risks in country specific contexts.

The EU notes that in general any assessment of climate related risks includes an implicit assessment of loss and damage when determining the cost and benefits of chosen paths of action be they mitigation or adaptation actions. Under the UNFCCC, Parties have committed to reduce the probability of the climate change by mitigating greenhouse gases. Parties have also committed to address the risks posed by the adverse impacts of climate change in order to allow for adaption in a timely manner. In both cases, countries do undertake necessary assessment, though it is clear that they do not always include an exhaustive consideration of loss and damage neither in the long term nor under different scenarios.

As such both mitigation and adaptation efforts are part of a comprehensive risk management process to address the risk for climate change and the risk of climate change and addressing loss and damage should be seen in the context of mitigation and adaptation and not as a separate issue. This means that comprehensive approaches to assessing and responding to the risk of loss and damage are essential to enable countries to define the appropriate entry points for climate resilient and sustainable investments. Furthermore, the EU believes that developing the understanding of loss and damage which exceeds the capacities of countries to address them will be an important element in the definition of cooperative efforts at the regional and international level.

Nonetheless, it is important to emphasise that major uncertainties remain and thus even in the absence of complete assessments, there are a number of low regret options that countries can already undertake in the context of their sustainable development. The absence of data and information should therefore not be a deterrent to urgent action.

Understanding loss and damage associated with the adverse impacts of climate change, including the potential and limitation of present institutions and frameworks as well as policies and measures, the projected future risks should inform and enhance efforts of countries, individually and collectively to mitigate the causes of climate change and to prepare and address the impending impacts in a coherent, coordinated and comprehensive manner. It should enable the international community to take a broader system perspective to mobilising concerted action and defining measures that would enable all countries to aspire and achieve sustainable climate resilient and low carbon development.

The EU also notes that many of the efforts that were discussed in the workshops in the work programme are taken in the context of responding to extreme events. The work programme highlighted the little experience evident to date in addressing slow onset events, such as sea level rise, glacial melting and ocean acidification beyond the present planning cycles. With regards to ocean acidification, the EU recognises that this is a problem concurrent to climate change, which underscores the need for concerted mitigation action coupled with efforts to enhance economic and social resilience, including through economic diversification. The EU also notes the synergies with the implementation of other multilateral agreements such as the UN convention to combat drought and desertification, and the convention on biological diversity, both of which contribute through their provisions to better understanding of how to manage slow onset impacts such as ecosystem changes and drought and desertification.

In our view, more work is needed to understand how to expand the horizons of planning at all levels and on how to factor in gradual change or slow onset events, which often are exacerbated by extreme events. The need for long term planning also highlights the potential role of traditional knowledge as well as the benefits of gradually improving responses in the light of knowledge and experience gained.

Elements to include in recommendations at COP 18

Many of the measures being undertaken to build adaptive capacity premise themselves on an understanding of the assessment of the risks of specific hazards and impacts and on an appreciation of the benefits for development in each individual country or region's context. The discussion on loss and damage should extend the horizon of our assessments and responses to encompass a comprehensive approach to managing the risk of the impacts in the first place coupled with efforts to manage the associated uncertainties.

The EU notes that while much effort is being made in the different regions, significant gaps remain and quite often existing and on-going initiatives do not maximise potential synergies from coordination with other interventions along the risk management continuum. For example, efforts to transfer risk by providing insurance should be nested in a broader context of risk reduction in order to ensure that while some financial risk is transferred, processes to reduce and manage risk and build resilience continue as essential complements.

The EU also notes that the capacities and resources to enable countries to undertake the range of approaches are varying between and within regions with clear areas where there are significant gaps. These relate to limited institutional, regulatory and human capacities to assess and respond to risks, inadequate or insufficient data, information and knowledge necessary to assess and address risks including on economic and noneconomic losses, limited institutional capacities to support early warning systems and policy responses and limited access to financial, technical and human resources. The use of risk retention and transfer tools varies within and across countries, with low penetration of insurance products in the less developed and poorer parts of the world, in particular in LDCs and Pacific SIDs.

As such, it is our view that the recommendations to be adopted by the COP should provide some ***strategic direction*** regarding how possible interventions at the national, regional and global level to address loss and damage related to climate change could be developed and thus increase the coherence of efforts as well as enhance the potential for cooperative measures that are comprehensive, inclusive and coordinated. However, comprehensively addressing loss and damage surpasses the remit of the UNFCCC and as such it is important to define the recommendations in a manner that contributes to an effective and catalytic impetus to the work of other relevant processes and policy areas.

In this regard, the recommendations in Doha could include provisions to:

- Enhance the information, data and knowledge relating to loss and damage associated with climate change, including information on non-economic losses.
- Strengthen institutional and human capacities to develop, generate and support early warning systems including among policy makers and other decision-makers.
- Support countries in their efforts to undertake comprehensive risk assessments, where relevant, including through the preparation of hazard maps and risk profiles in key vulnerable sectors and to define and implement appropriate responses.
- Enhancing the systems to document observed loss and damage associated with the adverse effects of climate change, including slow onset impacts, as a way of informing efforts to enhance measures to address climate change.
- Strengthen synergies with the humanitarian and disaster risk community to ensure that relief and renewal processes are undertaken in the broader context of building long term climate resilience.
- Encourage cross-sectoral collaboration and coordination at the local, national and regional levels and consider best practices on how to do this.
- Continue to support developing countries to plan, prepare and implement, plans, strategies and programmes to address climate change in the broader context of sustainable and climate resilient development.
- Continue the process of learning about the impact of slow onset events, their interactions with extreme events and what approaches are available to build long term resilience to manage these.

The COP should strive to encourage broad collaboration across sectors with different stakeholders within and outside the Convention, including the private sector. It should also include provisions which should strengthen the information provided to the COP to ensure an objective and informed basis to continue the decision making around efforts to address climate change and in particular to reduce loss and damage associated with the adverse impacts of climate change.

The EU looks forward to continuing the discussions with other Parties and to elaborating on provisions that will contribute to effectively addressing loss and damage associated with climate change in all countries, and especially the particularly vulnerable developing countries.

Paper no. 3: Gambia on behalf of the least developed countries

Submission by the Gambia on behalf of the Least Developed Countries Group on Loss and Damage

Overview

1. Introduction

Countries worldwide are already faced with loss and damage associated with the adverse effects from climate change, which an increasing pace of climatic change promises to increase. To address Parties' concerns about the increasing risk of loss and damage, the Cancun Adaptation Framework established the Work Programme on Loss and Damage under the Subsidiary Body for Implementation (SBI) to suggest further actions by Parties on the issue of loss and damage at COP18.

Throughout 2012, the Least Developed Countries (LDC) group has participated actively in the activities of the work programme, which have included an expert meeting on assessing loss and damage, and regional expert meetings to examine a range of approaches to address loss and damage (thematic areas 1 and 2 of the work programme). With this submission, the LDC group would like to express its views on thematic area three of the SBI Work Programme on Loss and Damage – the role of the Convention - and on key concerns and needs related to loss and damage both now and in the future.

2. Loss and Damage in LDCs: Impacts today and tomorrow

At the current increase in global temperatures (about 1°C above pre-industrial levels), a wide range of climate impacts has already been observed. High temperature and dry spell conditions, which covered significantly less than 1 percent of the Earth's surface between 1951-1980, now typically cover about 10 percent of the world's surface area. Global sea level has risen about 20 cm in the past 100 years, while the rate of increase has doubled in the past two decades. The repercussions of these climate

change impacts is widesperad. Global maize and wheat production declined by 3.8 percent and 5.5 percent, respectively from 1980 to 2008 compared to a scenario without a trend of increasing temperatures. However, the impacts of climate change are not experienced equally. Between 1970 and 2008 over 95 percent of deaths from natural disasters occurred in developing countries.

2.1 Impacts today[1]

New findings from recent research on the impacts of climate change on communities in selected LDCs show that households in vulnerable countries are already incurring severe loss and damage associated with extreme weather events and slow-onset climatic changes, which will likely grow in the future.[2] The research shows that loss and damage at the household and community level can result from: (1) inability to respond (costs of inaction) and (2) costs associated with existing coping and adaptive strategies. Loss and damage is also incurred beyond the household level, at the sub-national, national and regional levels. Analysis of findings on loss and damage today in LDCs and other vulnerable countries suggests that **communities are observing and experiencing changes in climate stresses, in both extreme weather events and slow onset climatic changes**. Research reveals that **communities are experiencing significant loss and damage** to quality of life, livelihoods, food and livelihood security as well as secondary loss and damage in the form of stress on social fabric essential to adaptive capacity and resilience. Observations include:

- **Bhutan**[3]**:** In Punakha District, late onset of monsoon rains and lower total amounts of monsoon rain decrease the availability of water for paddy rice irrigation. Farmers are attempting to adapt by changing water-sharing arrangements, shifting from rice to lower-yielding, rain-fed crops and buying pumps. For 84 percent of the survey respondents (N=273), these measures are not enough and/or entail extra costs. In addition, some adaptation measures are reported to cause conflicts between households and villages.
- **In The Gambia**[4] drought and changing rainfall patterns in the North Bank Region have caused crop failures and food insecurity. In 2011 crop production dropped by 50 percent compared to the five-year average because of inadequate rainfall. The 2011 drought also affected livestock and irrigated vegetable production. Farmers in the area try to cope by looking for alternative sources of income to buy food, such as selling livestock or firewood, fishing or migration. Focus group participants expressed the need for drought-resistant crop varieties, better soil and water conservation and crop insurance to make their agricultural system less vulnerable to the vagaries of the weather.
- **Micronesia**[5]**:** While not an LDC, the challenges of Micronesia are similar in nature to the small island developing states (SIDS) that are also LDCs. On the island of Kosrae, 68 percent of the surveyed households (N=364) experienced adverse effects of coastal erosion caused by sea level rise and extreme weather events. Most households reported damage to their houses. 50.3 percent adopted measures to reduce the impacts of coastal erosion, such as building seawalls, reinforcing houses,

[1] Full background information can be retrieved from http://ldcclimate.wordpress.com/

[2] Together with national research institutes, the UN University is undertaking 8 case studies2 in vulnerable countries on Loss and Damage to provide scientific insights about the adverse effects of climate change that go beyond people's capacity to cope and adapt. The case studies look at the impacts of extreme weather events as well as the impacts of slow-onset climatic changes. Full case studies will be available at www.lossanddamage.net

[3] Wangdi, N.; Wangchuck, U.; Kusters, K. (2012). "Loss and damage in Bhutan: Changing glacial melt, rainfall variability and livelihood impacts in Punakha district". CDKN Loss and Damage in Vulnerability Countries Initiative. Bhutan Case Study Report, first draft, September 2012. UN University Institute for Environment and Human Security.

[4] Yaffa, S. (2012). "Loss and Damage on millet production due to drought and changes in rainfall variability in the North Bank Region of the Gambia". CDKN Loss and Damage in Vulnerability Countries Initiative. The Gambia Case Study Report, first draft, September 2012. UN University Institute for Environment and Human Security.

[5] Monnereau, I.; Abraham, S. (2012). "Loss and damage in Micronesia: Coastal erosion, housing impacts, and the costs of not adjusting in Kosrae". CDKN Loss and Damage in Vulnerability Countries Initiative. Micronesia Case Study Report, first draft, September 2012. UN University Institute for Environment and Human Security.

planting trees along the coastline and moving to upland areas. However, for 95 percent of this group, the measures were not enough or entailed extra costs.

- **Bangladesh**[6]**:** In Sathkira District, salinity intrusion after cyclone Aila caused a total rice crop failure in 2009. In the two years that followed yields were 55 to 65 percent below pre-Aila levels. This had a severe impact on income and food security as the majority of the population depends on rice cultivation. The loss in rice production for the four villages in the study was estimated at US$ 1.9 million. Salinity intrusion also caused a sharp increase in both water borne diseases and skin and eye infections.

Communities experience loss and damage from changes in weather stressors and creeping climatic changes.

Today, loss and damage from climate change presents new, dynamic and significant challenges to already poor and vulnerable populations.

Rural residents in the eight research locations overwhelmingly perceive that climatic changes are happening today, and these perceptions shape household risk management decisions. These losses mean that communities and households face deteriorating quality of life, loss of livelihoods, loss of food and livelihood security related to weather extremes and climate change.

The largely agriculture-based households in the research sites overwhelmingly report that extreme weather events and slow onset changes are already causing both economic and non-economic loss and damage. In the case of coastal erosion and saline intrusion as well as extreme weather, households lose tangible assets like arable land, and incur damage to housing and other critical infrastructure. Secondary loss and damage being incurred today in communities surveyed manifested through deteriorating social capital, which is essential to adaptive capacity and resilience.

Households with more diverse assets and access to a variety of adaptation, livelihood diversification, or risk management options—through social networks, community or government support programs, and education— can avoid or manage climate-related loss and damage. Those households with the least access to such options—few or no livelihood diversification opportunities, no land, and little education—employ erosive coping measures which leave or trap them at the margins of decent existence as they try to deal with loss and damage. These households cope by reducing consumption, reducing investments in productive activities on their farms or in the education of their children, attempting to migrate to places with better prospects, and/or selling productive assets. An inability to adapt to climatic stressors causes communities to incur increasing costs, especially for those least able to adapt (but who should targeted most by adaptation strategies).

Although research revealed that adaptation efforts are being undertaken, it also shows that incomplete or insufficient measures increase loss and damage by leaving communities with no buffer when crops fail or when livelihoods are lost. Insufficient adaptation is ultimately an obstacle for development, especially for vulnerable groups that fall farther behind (relative deprivation) and incur greater costs (to pay for losses, damage incurred). The implications are twofold: First, there is still a significant role for adaptation in reducing loss and damage. Adaptation must be provided with adequate financial and technical support in order to facilitate implementation. Second, measures are needed to address particular loss and damage situations beyond adaptation. Affected communities are part of long-term solutions and should be empowered and equipped with better information, resources and options to manage loss and damage from changing weather and climate patterns into account.

[6] Rabbani, G. (2012). “Loss and Damage on rice production and drinking water due to salinity intrusion in coastal Bangladesh”. CDKN Loss and Damage in Vulnerability Countries Initiative. Bangladesh Case Study Report, first draft, September 2012. UN University Institute for Environment and Human Security.

2.2 Impacts tomorrow[7]

Future loss and damage is a directly depending on the achieved temperature stabilization level.

A 1.5°C rise in global mean temperatures by 2100 would prevent some of the worst impacts, but still poses a serious challenge to particular vulnerable countries, especially LDCs, SIDS and many African countries. An estimated 75 to 250 million people would be at risk of increased water stress within the next few decades. In Tanzania, reduced power generation from hydro-electric plants (due to water stress) alone is estimated to culminate in a loss of up to 1.7 percent of GDP in 2030. Global sea levels are projected to rise to 75 cm above 2000 levels by 2100, but might be stabilized beyond 2100 if temperatures would well below a 1.5°C increase due to significant mitigation efforts. In Bangladesh a sea level rise of 45 cm would already result in a loss of 10 percent of the country's land mass. Flooding risk increases most rapidly between 0 and 2°C warming.

Reaching a 2°C global temperature increase would put 350 to 600 million people at risk of increased water stress by 2050 and 10 to 15 percent of Sub-Saharan ecosystem species would be at risk of extinction. Severe and widespread droughts would occur in the next 30 to 90 years over many densely populated areas. Large regions could experience seasonal extremes with high regularity. Sub-Sahelian crop damages might exceed 7 percent, with a small chance of 27 percent damages. Major coral reef bleaching will occur, with widespread damages to coral reef systems and a risk of loss of coral reefs in the Indian Ocean between 0 and 15°S latitude. While sea level would rise to 80 cm above 2000 levels by 2100, a long-term stabilization at 2°C warming implies a continuous sea-level rise for centuries, with levels to approach 3 m by 2300. The threshold for the Greenland ice sheet to melt irreversibly is now estimated to be 1.6°C above preindustrial levels, compared to the IPCC AR4 estimate of 3.1°C.

At 4°C warming by 2100 the proportion of arid and semi-arid lands in Africa is likely to increase by 5 to 8 percent, and a completely new class of heat waves, with magnitudes never experienced before in the 20th century, could occur regularly. Between 24 and 42 percent of African plant species could lose all suitable range by 2085. Wheat production is likely to disappear from Africa by 2080, while millet yield in Sub-Sahelian Africa is projected to decrease by 40 percent. The intensity of the most damaging (category 4 and 5) Atlantic tropical cyclones is projected to nearly double by the end of the 21st century. New research shows mortality risk depends on tropical cyclone intensity, exposure, levels of poverty and governance. Due to ocean acidification, corals around the world are likely to start dissolving above 550 ppm CO_2. Sea-level rise would exceed 1 m by 2100, with regionally possibly up to 20 percent higher values. The sea-level rise post-2100 is hard to project, due to large knowledge gaps in understanding the response of the ice caps to such strong warming. In contrast with a 2°C world, in a 4°C world there will be a significant projected increase in so-called "residual damages"; the levels of impacts that cannot be adapted to, but need to be absorbed in terms of economic losses, as well as loss of life, health, livelihoods, culture and biodiversity.

A stabilized greenhouse-gas concentration level that leads to 4°C warming by 2100 would result in global temperatures stabilizing at 6°C above pre-industrial over the next few centuries. The most recent analogue for a 6°C world is found in the Palaeocene-Eocene thermal maximum 55 million years ago, which saw global temperatures rise by about 6°C over a period of 20,000 years, or so. As far as we know there is no analogue for reaching such warming over just a few centuries and it is fair to say that this will lead at least to the levels of widespread extinctions in both marine and terrestrial ecosystems that are shown to have happened 55 million years ago.

3. The context of loss and damage associated with climate change impacts

Addressing loss and damage has three parts: mitigation, adaptation and addressing "residual" loss and damage. These three components provide context for understanding loss and damage.

Mitigation: The first step to addressing loss and damage is through avoiding the potential for loss and damage in the future through appropriate mitigation ambition. Climate change impacts are driven by

[7] Full background document with references can be accessed via http://ldcclimate.wordpress.com/.

the concentrations of greenhouse gases in the atmosphere, which in turn impacts atmospheric and ocean temperatures (and ocean acidification). Article 2 lays out the ultimate objective of the Convention, which is to avoid dangerous climate change—the first part of avoiding loss and damage. Greater success in mitigating greenhouse gas emissions means less "residual" loss and damage. The prevention of dangerous climate change is the pinnacle of the loss and damage debate. Loss and damage will be magnitudes greater in a 4° world.

Adaptation: Second, adequate and appropriate adaptation measures can build resilience vis-à-vis negative climate impacts. Negative climate change impacts that cause loss and damage are also linked to the ability of human systems to adapt to changes in climate. Thus, the second pillar of avoiding loss and damage must be facilitating the ability to adapt and adjust to climate change impacts. The greater the extent of adaptation to climate change impacts, the less "residual" loss and damage there will be. However, the current mitigation ambition means that specific actions to address loss and damage cannot be fully addressed by the adaptation agenda.

Loss and damage. Third, responding to the problem of loss and damage is a necessity. The "residual" loss and damage after mitigation and adaptation choices have been made, is certain to exceed anything yet experienced in the aggregate in human history and requires urgent, purposeful attention by the international community. Loss and damage impacts fall along a continuum, ranging from "extreme events" i.e. weather-related natural hazards to slow onset events or "processes" associated with future anticipated changes in climatic norms in different parts of the world. The concept of tipping elements in climate, natural and societal systems is an important consideration in addressing potential loss and damage.

Equity, fairness and responsibility. Article 3 of the UNFCCC states that "parties should protect the climate system for the benefit of future and present generations of human kind on the basis of equity and in accordance with their common but differentiated responsibility and respective capabilities. Accordingly, developed countries should take the lead in combating climate change and the adverse effects thereof." So far actions of industrialized countries have not been enough to forestall the effects of climate change. As a result, the brunt of loss and damage, today and in future, has to be born by those countries that contributed the least to the problem, making loss and damage an issue of equity. Undoubtely, staying below 1.5°C will not be possible with mitigation in industrialised countries alone, but will require major efforts around the global and the associated means of implementation in order to shift globally to low-emission development pathways. In addition, equity and fairness in the context of loss and damage will also require to pay particular attention to the effects on those people most vulnerable and least capable of addressing loss and damage, in line with the principles agreed in the Cancún Adaptation Framework.

4. Gaps identified in the first phases of the SBI Work Programme on Loss and Damage

Based on the insights of the expert meeting in Tokyo and the series of regional expert meetings in Addis Ababa, Mexico City and Bangkok, the LDC group would like to highlight some of the most important insights and needs for the group.

4.1 Assessing the risk of loss and damage

Invisible impacts and unknown loss and damage due to climate change do not initiate the necessary paradigm shifts in actions and investments. Making the risks of loss and damage more visible and transparent should therefore be a major priority for further consideration of the Role of the Convention. Two general and distinct functions exist, which should be driven forward regarding the assessment of risk of loss and damage.

Support for national level activities: Widespread facilitation of national level assessment of the risk of loss and damage is crucial. This is an important basis for informing and facilitating action to address loss and damage, enhancing the use of climate risk data for national users and generating wider

synergies with the national adaptation agenda including the National Adaptation Plan (NAP) process. Gaps in assessing current and potential future loss and damage are a roadblock for planning and investment for climate resilient development.

Inform paradigm shift at the Convention level: The risk of loss and damage should be used as a yardstick to inform the wider UNFCCC regime, on the extent of mitigation, adaptation, means of implementation and special needs of countries, which can inform concepts of equity and fairness. Ultimately, it should give the Convention a reality check on the fulfilment of Article 2 given existing mitigation ambition. Therefore the assessment needs to be forward looking and prospective**.**

4.1.1 National level needs and gaps in assessing the risk of loss and damage

Risk assessment capacity building and enhancing, also including forging and linking with the NAPs process (in non-conditional way): Capacity, technical, financial and institutional constraints mean that developing countries, in particular LDCs, cannot employ assessments of risk of loss and damage at the required scale. Further work is needed to establish baselines and perform monitoring and evaluation, enhance understanding of particular typologies of loss and damage, assess parameters and develop common methods to assess loss and damage. The lack of adequate and predictable funding is a major impediment to the establishment and maintenance of data relevant for risk assessments. There are further capacity needs related to understanding and working with climate service products. There is a significant need for this information to systematically inform decision-making, especially to effectively address loss and damage and in support the establishment of NAPs. Yet imperfect knowledge does not imply that adaptation is not possible. Effective risk management and adaptation, including through NAPs, can still be done in the absence of perfect climate risk assessments.

Climate services for users in both the public and private sector in LDCs and other vulnerable countries: Unknown risks are a major impairment for investment in development. Climate services need to be built up in such a way that they serve both the public and private sector widely (open source). This requires strengthening of meteorological services in developing countries to facilitate free sharing of data and information. There is also a need to clarify the role, scope and ambition of the Global Framework for Climate Services run under the auspices of the World Meteorological Organization (WMO) in the context of providing information services that are both accessible and appropriate for end users.

Non-economic assets and losses: Further understanding of non-economic losses is needed. These are of particular importance to LDCs, since the economies of LDCs are often largely based on natural resources and involve a significant level of informal economic activities. Neither assessments of the risk of loss and damage nor decision-making support tools should favour economic over non-economic losses. Understanding and analysis of issues such as social resilience, livelihoods, food security, and human mobility (migration, displacement, planned relocation) must be included in assessments to give policy makers a comprehensive view of loss and damage. Without such a comprehensive view that accounts for non-economic values, actions could be skewed and meeting the needs of affected communities inadvertently excluded. To this end, clear procedural requirements for the participation of vulnerable communities in decision-making should be formulated.

Standards and guidelines for assessment: The development of assessment standards and guidelines - including a step by step/toolkit approach for assessment of risks of loss and damage taking into account national circumstances – would aid LDCs in their efforts to assess loss and damage. Countries often lack sound analysis of risks, including exposure of assets and values-at-risk necessary to address loss and damage.

Historic experiences will no longer guide predictions of the future: Experience in assessing the risks of loss and damage are often approached from a disaster risk management perspective, with a focus on extreme events. However, changing patterns and frequency of extreme events and slow onset hazards of climate change are less understood. There are gaps in many loss and damage risk assessments, especially in the incorporation of future loss and damage.

Specific capacity building needs for national level institutional arrangements: There is the specific need for capacity building of climate risk assessment in the context of national level institutional arrangement for adaptation.

Specific loss and damage assessment needs in LDCs: LDCs have specific needs mostly around the risk of non-economic loss and damage assessment. In the short term, LDCs require specific assessment tools. Conducting case studies of comprehensive national level assessment programme is therefore an important activity which should be facilitated through the Convention immediately.

4.1.2 International gaps in assessing the risk of loss and damage

Information flow under the Convention: There are currently ineffective feedback mechanisms for Parties to be informed in a timely way about the extent of loss and damage and breaches of Article 2. There are already some information sources, including the IPCC, and the Research Dialogue under SBSTA. However, these bodies have their own constraints and have not yet instigated the international response appropriate to the climate crisis. LDCs and other vulnerable country Parties are already being affected by loss and damage from climate change impacts and will continue to be affected in the future. This is not systematically reported to the international level.

International repository for relevant information on loss and damage: Different information sources inside and outside of the Convention, that have direct relevance to assessing the risks of loss and damage, need to coordinate better. The Hyogo Framework for Action encourages countries to establish loss and damage databases on natural catastrophes. The Global Climate Observation System (GCOS) covers many Essential Climate Variables that track slow onset hazards. There are further Earth Observation Programmes that are relevant to inform about the extent of loss and damage. There is the need to streamline such information from a risk of loss and damage perspective to complement existing information flows inside the Convention process.

Establishment of monitoring of loss and damage within the Convention: There is no systematic channel for countries to report on their loss and damage experience and exposures. National communication is an important channel to communicate vulnerabilities in developing countries. However, at present there is no guidance vis-à-vis the parameters, scope and coverage of loss and damage experience and exposures. This is an important prerequisite to enable aggregation of such information on the international level and to allow for comparability of data. Another gap related to monitoring is the fact that there is no regular synthesis of relevant information in the national communication by the secretariat

4.2 Gaps in Addressing loss and damage of importance to LDCs

Gaps in Addressing the Continuum of Loss and Damage

The activities undertaken under the work programme, such as expert meetings on the range of approaches to address loss and damage, have shown that there are significant gaps that need to be filled in order to address loss and damage effectively, particularly for LDCs with their limited capacities and high degree of vulnerability. Many of these gaps exist both for approaches to address extreme weather events as well as slow-onset processes, but there are also some differences.

Relatively more is known and done to address the negative impacts of extreme weather events using approaches like risk reduction, risk retention, and risk transfer. However, even in these areas of risk management many gaps are widely acknowledged. Developing countries today do receive some assistance after major weather-related extreme events to recover although gaps and shortfalls of this ex post approach are widely acknowledged. The existing, erratic approach where humanitarian aid is pledged on a voluntary and arbitrary basis, which is used in case of major disasters in developing countries, will only address a fraction of the scale, if any, to meet the needs in the future to address

loss and damage. It is not adequate and not sufficiently reliable to the foreseeable increase in such damages associated with climate change.

Risk reduction – lack of priority and resources: Overall risk reduction suffers from lack of resources for ex-ante approaches, lack of sound assessment base, and limited political willingness to undertake low-visibility risk reduction activities which may compete with higher political priorities. Many countries lack essential elements needed for risk reduction approaches:

- Awareness raising and education requires information-sharing systems and communication services, promoting dialogue and cooperation among scientific communities and practitioners.
- Early warning requires the collection and use of data on disaster risks, and hence the development and maintenance of capacities and infrastructure to observe, analyze and forecast hazards, vulnerabilities and disaster impacts.
- Disaster preparedness for effective response requires plans for policy, technical and institutional capacities for management and coordination; coordination and exchange of information; contingency planning, allocation of necessary financial resources including emergency funds.

Risk retention – unplanned losses: One of the key gaps around risk retention is that countries lack a sound understanding of potential loss and damage and their to absorb loss and damage with its own social, economic, cultural and other resources. Emergency assistance often comes too late and in unreliable forms and amounts. Loans are not a desirable way to deal with increasing losses from climate change, especially since LDCs have barely contributed to the problem. Many countries retain risk inadvertently by not having appropriate risk management plans in place, and are thus often caught unprepared.

Although unplanned risk retention is practiced widely, it can have less visible and implicit consequences when loss and damage does occur such as longer-term drag on economic growth or forfeiting key development goals because the financial means to achieve them may have been diverted to restitute loss and damage.

Countries often lack mechanisms to identify and effectively reach target groups under social safety net programs and other approaches to improve resilience to climate stressors. Countries lack monitoring capacity and financial resources for investments in resilience. There is currently no instrument which would provide reliable and predictable financial resources for developing countries, particularly LDCs. Investing resources into measures such as rehabilitation in LDCs will exacerbate existing resource scarcity and - given the likely increase in loss and damage - jeopardize sustainable development and poverty reduction prospects. Lower income countries would benefit from a solid risk analysis and risk mapping that indicates to them their risk exposures. Following this an analysis of national financial parameters will help guide decisions on the degree of risk retention that is appropriate for the national context, and the degree of other complementary approaches that could be considered (such as risk reduction and risk transfer).

Risk transfer: Lack of capacity, understanding and affordability: Risk transfer approaches require a number of elements for proper design, implementation, and ongoing maintenance which are lacking in many developing countries. Countries require a sound analysis of risks, including exposure of assets and values-at-risk, vulnerability, and probability of a range of climatic stressors (usually extreme weather events). Countries need a combination of ground-data (such as a reasonable met service with time series data about weather parameters) as well as satellite imagery information to establish risk profiles, and understand the cost of risk transfer relative to the amount of financial protection offered. LDCs lack financial capacity at a basic level, including banking and finance systems through which to channel risk transfer payments and payouts efficiently. Help is needed to grow regulatory frameworks for risk transfer to ensure consumer protection (ideally also one that makes provisions for parametric / index based approaches, and for insurance approaches that cater to low-income groups like microinsurance).

Slow onset: Gaps in experience and capacity. LDCs lack experience in addressing slow-onset climatic processes, although experience in water and land-use management, management of soils and other natural resources may provide points of departure. LDCs face gaps in finance, technology, and capacity for efforts to address loss and damage, which hinder efforts to address slow onset processes (as well as the impact of extreme weather events). The level of funding that might be required to manage loss and damage related to slow onset climatic processes is uncertain and varies greatly between different countries and regions. Overall there is a lack of resources to implement proactive approaches to address experienced loss and damage from slow onset climatic processes.

Slow onset: Gaps in legislation and planning. Many countries are beginning to have legislation including consideration of slow onset impacts of climate change, yet implementation of these frameworks is often hindered by lack of institutional and financial capacity. There is a lack of political commitment, community and people participation, institutional, legislative and operational mechanisms for addressing the spectrum of loss and damage. A lack of institutional coordination on different levels, including because of limited capacities, often hampers adequate and climate-resilient risk reduction measures that are mainstreamed in core economic activities and planning. It is generally difficult for LDCs to address transboundary challenges such as human mobility and regional resource management. There is a gap in tools that manage variability and increase planning certainty. Tools are needed that offer buffers for developing countries, and help the international community better plan to meet financial needs (for adaptation, managing loss and damage). Regional approaches including risk transfer pools could help dampen the immediate impacts of extreme weather events, while seeking complementary longer-term solutions. There is also a lack for national and international systems, frameworks and principles to restitute and recompense people once livelihoods vanish as a result of climate change impacts.

Slow onset: Lack of threshold notification systems. Countries lack approaches that occur once social and ecological thresholds have been crossed. Few if any systems are in place to address unforeseen acute or chronic climate stressors that threaten key issues like food and water security for larger areas, livelihood security and potential population shifts if areas become less habitable. There are no systems that address severe "secondary impacts" related to world food production systems (e.g. impacts on food availability and trade due to heat waves or other climatic stressors that decrease crop yields and drive staple food prizes world wide).

Slow onset: Human mobility and displacement. Slow onset changes may render wider areas of land less habitable, render livelihoods unviable and decrease the food security of many people. Gaps exist in understanding the interactions between climatic stressors, livelihood, food security, and migration decisions. Gaps also exist in institutional frameworks needed to address the needs of mobile populations as some may need to move from areas subject to sea level rise, glacial retreat, and desertification / changes in regional rainfall regimes. Gaps exist in coordination and design of regional arrangements to help affected populations access safe, dignified livelihoods in origin and destination areas. Adequate provision will need to be designed in collaboration with relevant international institutions and other stakeholders to consider how to address interrelated issues of livelihood and food security, migration, displacement, and planned relocation.

4.3 Needs in coordination action on loss and damage

The work programme has also shown that there are significant gaps in the coordination of relevant international processes, which hamper an effective approach to address loss and damage. This relates both to processes both inside and outside the UNFCCC:

Under the Convention: A number of existing processes already address aspects related to loss and damage, such as the Nairobi Work Programme and the Research Dialogue under SBSTA, the Global Climate Observation System (GCOS) and related processes, the National Communications Process and the work of the Consultative Group of Experts, or the Least Developed Countries Expert Group. The

NAPs process is of particular relevance for LDCs and their domestic efforts to assess and prepare for climate risks. The Adaptation Committee in particular, but also the Standing Committee on Finance and the Technology Executive Committee may contribute to a coordinated approach to loss and damage.

Outside of the Convention: A number of processes exist outside the Convention, which deal with or regulate certain aspects of the loss and damage spectrum. These include, the UNISDR for extreme events and the respective implementing agencies, the WMO for observation and data provision, UNCLOS for ocean acidification, UNESCO for mountain ecosystem, CBD for losses of biodiversity, UNCCD for losses from desertification, the IPCC for a link to science and the link to human mobility in the humanitarian context through UNHCR. There is also the need to define the relationship to funding institutions such as the GCF.

5. Role of the Convention (and other institutions/mechanisms at the international level)

5.1 Legal justification for a role of the Convention

The Convention itself contains a number of provisions directly linked to aspects, which are critical to the loss and damage debate. The preamble recalls, “that States have [...] the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction". Article 2 - as the ultimate objective of the Convention - aims to “prevent dangerous anthropogenic interference with the climate system", and "to ensure that food production is not threatened". Article 3.3 requires Parties to take precautionary measures and states that scientific uncertainty should not be used to postpone action where there are threats of serious and irreversible damage. Article 4.4 obliges developed country Parties to assist particularly vulnerable developing country Parties in meeting the costs of adaptation. In Article 4.1 developing countries also commit to undertake adaptation actions, supported by Article 4.4. and others, which also underlines that developing countries prefer to avoid loss and damage through adaptation. Finally Article 4.9 highlights the special attention to least developed countries with regard to funding and transfer of technology

The role of the Convention has further been underlined through decisions 1/CP.13, 1/CP.16 and 5/CP.17.

In addition, LDCs would like to reiterate the complementary legal justification to address loss and damage contained in the Rio Declaration, including principles 13 and 15. These principles have been reaffirmed in the outcome of the Rio+20 Summit. The outcome of Rio+20 furthermore underlines the grave threats posed by sea-level rise, such as loss of territory, and other adverse impacts of climate change.

5.2 Functional justification of the Convention

There is important functional justification for a role of the Convention in loss and damage. LDCs are of the view that such a role was initially recognised in decision 5/CP.17 in which Parties agreed on the need to explore a range of possible approaches and potential mechanisms for addressing loss and damage including an international mechanism. 1/CP.16 mandated to consider inter alia the possible development of a climate risk insurance facility to address impacts associated with severe weather events; options for risk management and reduction; risk sharing and transfer mechanisms such as insurance, including options for micro-insurance; and resilience building, including through economic diversification; and approaches for addressing rehabilitation measures associated with slow onset events. Under the work programme, little attention has been paid so far to these tasks that Parties have given themselves. In the view of the LDCs more comprehensive approaches to address loss and damage are required. An international mechanism must be considered seriously given the scale of the

challenge. Overall, in order to address the gaps identified above, the LDCs are of the view that at least the following functions need to be pursued, with the Convention process in a leading role to fill these gaps:

Function 1: Promoting improved assessment regarding loss and damage, including through international coordination and cooperation for activities on:

The **national/regional level**:

- Enhancing data collection and access (such as through open data initiatives) and promoting good assessment tools for different levels, taking into account the needs and contributions of vulnerable groups and people;
- Incentivising the development and maintenance of regionally consistent datasets for improving predictive modelling and use in the establishment of baselines and indices to measure loss and damage from slow-onset processes;
- Capacity building and strengthening for relevant institutional arrangements on the national level, including meteorological services in developing countries;
- Assessing and understanding non-economic assets and losses (such as in the areas of lives and livelihoods, human mobility, loss of territory, food security;
- Enhancing the ability of countries to conduct risk assessments related to different levels of expected warming and on different spatial levels), including through consideration of loss and damage in NAPs
- Elaboration of standards and guidelines for such assessments, based on good practice and experience;

The **global level:**

- Promoting research and development on matters important to further the understanding and assessment of loss and damage on a global scale, including with regard to the attribution of loss and damage to inter alia levels of historic and future responsibilities, mitigation and adaptation ambition, and to warn about potential triggering of key tipping elements, both ecological as well as societal, and;
- Providing feedback in a timely and systematic manner about the extent to which loss and damage threatens to breach Article 2 of the Convention, drawing inter alia on information sources such as the IPCC and the results of the periodic review, and promoting appropriate action with regard to mitigation and supply of means of implementation;
- Streamlining information from different bodies and processes (such as the Global Climate Observation System) from a risk of loss and damage perspective to complement existing information flows inside the Convention process.

Function 2: Promote a range of approaches to address the full continuum of loss and damage (such as risk reduction, risk retention, risk transfer, slow-onset processes), including through:

- Supporting and coordinating technical assistance to developing country governments to implement approaches which address loss and damage;

- Providing new and additional financial means in a reliable, predictable and sustainable manner, including for
  - Implementing proactive adaptation measures which can reduce loss and damage;
  - Rapid delivery for disaster relief activities;
  - Funding for rehabilitation;
  - Compensating residual or unavoidable loss and damage (incl. for individuals)
- Examining the role and potential modalities (incl. its finance) of a climate risk insurance facility to assist particularly vulnerable developing countries in risk sharing and transfer;
- Enhancing the understanding, coordination and cooperation of financial measures which could assist LDCs in rapidly recovering after occurred disasters;
- Establishing and supporting regional networks for collaborative partnerships to address loss and damage;
- Promoting cooperation to advance policy coherence and regulations related to loss and damage, including through fostering proactive adaptation planning which can reduce loss and damage
- Elaborating technical guidance related to aspects such as rehabilitation of loss and damage, redress and compensatory mechanisms for individuals within developing countries;

Function 3: Promote exchange, interaction and coherence between relevant political and other processes with relevance to loss and damage, including:

- Inside the Convention among bodies relevant to loss and damage, including SBI and SBSTA, LEG, NWP and the Adaptation Committee.
- Outside the Convention: among processes and institutions such as UNISDR (extreme events), WMO (observation); United Nations Convention on the Law of the Sea and work on oceans (sea-level rise and associated desalinisation, ocean acidification); CBD (ecosystem and biodiversity losses); UNCCD (losses from desertification) and UNHCR (migration) and the wider UN system.

While there have been some efforts for coordination, particularly on adaptation in the Joint Liaison Group (CBD, UNFCCC, UNCCD), overall there is a lack of coordination on the international level. Since all these processes can make valuable contributions and since duplication of efforts should be avoided, effective coordination is required on the international level. Moreover, the relationship to funding institutions such as the GCF need to be considered further, depending on the financial arrangements pursued in order to address loss and damage. Of course it has to be avoided that funding for adaptation would come on the expense of any financial means to address "residual" loss and damage.

5.3 Performance of the functions: the need for an international mechanism

Given the expected scale of the loss and damage challenge, and its linkages to the international progress on mitigation and adaptation, LDCs are of the view that a **permanent, more institutionalised and coherent response is required**. The existing, significant gaps cannot be overcome with an uncoordinated, loose set of activities. A UNFCCC work programme, an expert group or a permanent agenda item alone are not sufficient. The Convention process has a central role to play here, in particular because of the necessity to assess the link between its progress towards achieving Article 2 and the associated loss and damage.

Therefore, the LDC group proposes to **establish an international mechanism to address loss and damage** which would work as an umbrella for activities required on different levels and would perform the key functions required for an adequate response as outlined above. Central governance elements should include

- The COP as the central oversight body of the mechanism providing the political direction;
- Development of key guidance for the elaboration and operation of the mechanism and its elements;
- Operation of its elements by various institutions, as appropriate;
- Definition and constant review of the mandates given to the Adaptation Committee, the SBs and other bodies under the Convention.

Further options for modalities should be elaborated in 2013.

Paper no. 4: Ghana

SUBSIDIARY BODY ON IMPLEMENTATION (SBI)
SUBMISSION OF GHANA

Theme III - Role of the Convention on loss and damage from the adverse effects of climate change

Developing countries including Ghana require systematic consideration and support on loss and damage from the adverse effects of climate change. Loss and damage from the adverse effects of climate change is the unfortunate result of insufficient ambition in addressing the historical accumulation of greenhouse gases in the atmosphere and in achieving the objective of the Convention. A country suffering 6% loss of its GDP due to a single extreme weather event, seeing millions of its people displaced, witnessing how their main economic sectors become unviable, or how lifestyles and survival are jeopardized is at the core of the loss and damage from the adverse effects of climate change discussion. The scope of loss and damage related to the adverse effects of climate change ranges from that incurred from weather-related extreme events to slow-onset events– steadily incremental changes in climate which cause loss and damage from the adverse effects of climate change to systems upon which humans rely in order to live and flourish. Ultimately loss and damage from the adverse effects of climate change represents lost of development opportunities and a barrier to achieving sustainable development.

Adaptation to climate change and addressing loss and damage to the adverse effects of climate change have multiple synergies, overlaps and are not necessarily separate. They can both build on disaster risk reduction approaches. Therefore, the concept of loss and damage from the adverse effects of climate should rather be viewed as additional to adaptation, focusing on challenges of both identifying and addressing the instances when adaptation is not longer possible. These instances may arise due to sudden extreme events, slow onset events, and/or the combination of various sudden and slow onset events leading to crossing of ecosystem tipping points. The combination of these events might create chain-reactions, where, for example, populations are forced to migrate due to slow-onset effects of the changes in ecological zones within northern parts of Ghana. For example it is reported that relatively high population of people from the northern part of Ghana migrate to the southern part of the country during the long dry period in search of jobs.

A range of approaches already exist to address loss and damage from the adverse effects of climate change, but these are insufficient to prevent and manage the sweeping scale of real and potential future “residual” loss and damage from the adverse effects of climate change and require further action, particularly those associated with slow-onset impacts, including sea level rise, increasing temperatures, land and forest degradation, loss of biodiversity, desertification, salinisation and related impacts.

Assessments must be based on anthropogenic climate change of the coming decades, rather than on current frequencies and severities of extreme events. Planning “only” for the extreme climate-related events of today could leave countries in a position in the future where actions have been devoted to a static understanding of climate-related adverse impacts. Vulnerability and risk drivers are not the cause of losses: loss and damage result from the adverse effects of climate change. Damage and loss can be exacerbated due to underlying vulnerabilities, but vulnerability is not the cause of drought or sea level rise.

There is the need to fill existing gaps in institutional and legal frameworks to address loss and damage from the adverse effects of climate change, including through an institutional mechanism to address slow-onset impacts and other essentially unavoidable damages. Changes to the legal frameworks and institutions may be required inside and outside the Convention, including at the national level. These must be supported in accordance with principles and provisions of the Convention.

UNFCCC principles and provisions relevant to the discussion on Loss and Damage from the adverse effects of climate change

The Convention contains relevant principles for addressing loss and damage from the adverse effects of climate change that should be taken into consideration as Parties debate next steps on loss and damage from the adverse effects of climate change. Under Convention Articles 4.3, 4.4 and 4.5, developed country Parties have committed to provide and facilitate financial and technical support for developing country adaptation efforts. Addressing loss and damage from the adverse effects of climate change under the Convention should not distract from the desire and commitment by developing countries to carry out adaptation obligations under Article 4.1(e), supported by Article 4.4 and others.

The UNFCCC and action at the international level

Addressing loss and damage from the adverse effects of climate change will require international-level action. This requires the use of institutions and mechanisms that already exist under the Convention, but the nature of the issues also requires additional efforts and institutions to systematically consider and address the needs of developing countries.

The following are the main types of action that must be undertaken under the Convention with respect to loss and damage from the adverse effects of climate change:

- Provide financial assistance, including long -term financing for loss and damage from the adverse effects of climate change

- Promote coordination and cooperation on addressing technical and other capacity needs related to loss and damage from the adverse effects of climate change through the following:
  - Enhancing data collection, including establishment of foundational requirements, assessment tools and processes to collect loss and damage from the adverse effects of climate change data at the appropriate level, in a manner that is also sensitive to vulnerable groups and people;
  - Enhancing the ability of countries to conduct needs assessment and baseline assessments in order to be able to analyse and make informed decisions on various risk management policies, including enhancing understanding and coordinating assessment methods for slow onset changes at national and regional levels, including through regional cooperation and regional activities;
  - Enhancing the ability of countries to establish institutional and operational modalities at the local, national and regional level to channel support, including after disasters.

The role of the Convention with respect to gaps in addressing loss and damage including managing long-term issues and emerging challenges such as:

- *Migration:* The needs of climate migrants (from migration, displacement and planned relocation) require appropriate consideration.

- *Non-economic losses:* Both economic and non-economic losses must be addressed by loss and damage from the adverse effects of climate change mechanism. Ultimately finance cannot adequately compensate people for the loss of life or health, homes and assets, livelihoods, territory, culture, or ecosystems that will result from radical changes in climate, whether at local, regional or global levels.

International Mechanism for Loss and Damage

There is a need for a permanent process to address loss and damage from the adverse effects of climate change needs to be put in place, with roles assigned to the Adaptation Committee, and consideration of the matter taken up also under the financial mechanism. The mechanism could address the following among others:

- **Assessment of loss and damage from the adverse effects of climate change:** Some foreseeable loss and damage from the adverse effects of climate change may be avoided. Some loss and damage from the adverse effects of climate change is built into the climatic system and will occur regardless of the nature of mitigation and adaptation practices. The special needs of particularly vulnerable developing countries must be accounted for in assessing the avoidable or unavoidable nature of loss and damage from the adverse effects of climate change.
- **Addressing loss and damage from the adverse effects of climate change, including through a compensation and rehabilitation fund**: Unavoidable loss and damage from the adverse effects of climate change may be addressed through risk sharing mechanisms, but total loss and damage from the adverse effects of climate change will need to be redressed through compensation and rehabilitation mechanisms. This role could include coordinating and supporting technical assistance and acting as a clearing-house for data and expertise relevant to adaptation and disaster risk reduction; establishing and supporting regional networks of collaborative partners within and external to Governments, etc.
- **Leadership of the Convention, including for the coordination of work on loss and damage from the adverse effects of climate change:** The Convention could under these mechanisms take systematic efforts to support in regulating response to slow-onset damage, link with UN institutions managing human mobility, coordinate cross-boundary issues and resources, link with other UN convention processes such as the CBD and the CCD, guide the data collection and analysis activities of the WMO, inform the work of the UNISDR.

Gender Considerations

Consideration of a decision on an international mechanism for Loss and Damage should incorporate gender mainstreaming as an approach that will enhance efforts to address loss and damage associated with the adverse affects of climate change through the following:

- Ensuring women's equitable participation in decision-making and loss and damage activities;
- Assessing gender-differentiated vulnerability and prioritized needs;
- Integrating women's particular vulnerability in the loss and damage accounting processes; for example in Ghana loss and damage associated with crop, fisheries and water sectors has serious negative impact on the socio-economic well-being of women and children.
- Providing gender-sensitive training, education and creating immediate and urgent actions to address loss and damage that are inclusive of vulnerable constituencies, particularly vulnerable women.

Paper no. 5: United States of America

Submission by the United States of America

The role of the Convention in addressing loss and damage associated with the adverse effects of climate change

16 November 2012

The United States is committed to working with developing countries to understand how climate change may affect key economic sectors and vulnerable communities and to identify solutions to increase the resilience of those sectors and communities to climate change and variability. We define "loss and damage" broadly as the adverse consequences of climate change. We believe the loss and damage work program has made progress in helping developing countries better understand how to assess climate risk and to adapt to climate change by using risk management approaches appropriately and cost effectively.

These risk management approaches are: risk reduction, risk retention, risk transfer, and post disaster assistance.

- **Risk reduction** approaches are adaptation measures aimed at reducing loss and damage. According to the Caribbean Catastrophe Risk Insurance Facility's Economics of Climate Adaptation Initiative, some countries can avoid up to 90 percent of expected damage by implementing cost-effective risk reduction measures. Risk reduction can be the most cost effective way of reducing the amount of primary losses (which result immediately from an event, such as wind damage from a hurricane) and secondary losses (which result after an event, such as additional damage caused by a landslide after a flood) suffered as a result of events of all different severities.

- **Risk retention** approaches, such as savings accounts or national contingency funds, are best targeted to moderately adverse events that happen too frequently to be insured on the market, but are severe enough that not all losses can be averted through risk reduction measures. For example, a farmer may be able to cope with a moderate drought if she has reduced her risks by filling up a water storage tank earlier during the rainy season; but she may still have a reduced yield and need to take money out of savings to pay for inputs needed for the next planting season. With risk retention approaches, individuals and governments can plan ahead and quickly access resources for response and recovery.

- **Risk transfer** approaches, such as insurance, limit the sudden financial impact for affected individuals or governments by distributing risk to other players in the market. Insurance is not a stand-alone solution. Nevertheless, for events of a relatively low frequency and high severity, insurance can be the most cost-effective tool. By giving risk a clear monetary cost, insurance gives countries, communities, and individuals an incentive to reduce risk or to shift to more resilient crops or livelihoods. This, in turn, can reduce primary and secondary losses.

- The amount of **post-disaster assistance** needed will be reduced to the extent that these risk management tools have been used.

The expert meetings on loss and damage this year demonstrated that many countries and communities are already implementing innovative risk management approaches. At the Africa expert meeting, for example, experts presented the Rural Resilience Initiative, which is supported by USAID and other donors and implemented by the World Food Program and its partners. The initiative is helping poor farmers in Ethiopia and Senegal implement a comprehensive risk management approach that increases their resilience to drought. It builds on existing World Food Program food-for-work programs. It provides farmers with increased access to credit, innovative insurance products, and savings mechanisms. It also promotes risk reduction measures like soil conservation and water storage. Each of these tools is targeted at the risks that they can most effectively address. The program aims to determine and demonstrate the conditions and requirements for effectively scaling up these solutions for vulnerable communities. It is evaluating its impact to show the effectiveness of combining tools into a comprehensive package.

The expert meetings also highlighted several needs and priorities. They identified the importance of raising awareness and building the capacity of developing countries to make decisions about how to target and use various risk management approaches to adapt to climate change – and how to allocate limited public funds among them. These kinds of decisions depend on the circumstances, priorities, and needs of individual countries. At the meetings, developing countries underscored the need to use bottom-up approaches and not be prescriptive, to leverage local and indigenous knowledge, to understand local priorities and needs, and to build on existing coping mechanisms. They also affirmed the importance of strengthening coordination and collaboration between the disaster risk reduction community and the adaptation community.

The United States believes that the concept of an international mechanism being pushed by some Parties would not meet the needs and priorities that countries themselves identified through the work program.

- First, an international mechanism with an international insurance pool and a compensation/rehabilitation pillar **would inhibit a country-driven approach to adaptation**. This concept of an international mechanism presumes that all vulnerable countries want a significant portion of adaptation resources to be used for insurance premiums or set aside for later use in rehabilitation, rather than invested in urgent implementation of adaptation approaches today that can actually avert or reduce losses and damages in the first place. Such a mechanism undermines the ability of individual countries to develop their own priorities based upon their specific circumstances and needs. We believe vulnerable countries should be able to decide to reduce risks and avert loss and damage. An international mechanism with insurance and compensation pillars could severely undermine countries' abilities to make those decisions at the national level, and reduce resources left for those kinds of measures.

- Second, an international mechanism that includes insurance and compensation/ rehabilitation pillars **would have to put a monetary value on the lives, livelihoods and assets of the most vulnerable countries and populations**. The evaluation of risks is based on the economic value assigned to lives, livelihoods and assets. The international community, however, does not have the capacity to make a normative judgment, on a centralized basis, of what gets valued and what does not. A centralized decision about valuation would very likely result in undervaluing poorer communities, cheaper land, and subsistence livelihoods.

- Third, there is mounting evidence that subsidized premiums **reduce the overall availability of insurance tools** by crowding out private insurance providers, which cannot compete with artificially low premiums that do not reflect real risk. Therefore, creating an international insurance pool with fully subsidized premiums would actually reduce the overall availability of insurance for vulnerable countries and communities.

- Fourth, there is also mounting evidence that subsidized premiums **could incentivize mal-adaptation, leaving vulnerable countries and communities at even greater risk of loss and damage.** If the cost of insurance is lowered as a result of subsidies, it can impede climate change adaptation by eliminating the motivation to reduce risks, thus increasing moral hazard. There would be no incentive, for example, to stop building on a flood plain because the insured individual, community, or country would know that they would receive a payout if their assets were destroyed.

- Fifth, an international insurance pool operated under the Convention **would not have the agility to make quick payments**, due to bureaucratic delays and political influences. One of the advantages of risk transfer pools is that payouts are made to affected countries or populations more quickly than humanitarian assistance can be allocated and distributed. If the insurance payout from an international insurance pool operated under the Convention arrives months or years after the adverse event occurred, it will not be available for urgent recovery needs.

- Sixth, it **would be technically impossible to establish an insurance mechanism that paid out an amount that can be proven to be equivalent to the damages directly attributable to climate change**. Attribution of specific incidences of loss and damage to climate change, as opposed to natural climate variability and/or vulnerabilities stemming from non-climatic stresses and trends like deforestation and development patterns, is technically impossible in most every case. This is confounded by a lack of climate observing stations in the developing world that allow for monitoring of the climate system and would provide indicators for when thresholds are passed. Regional pools outside the Convention provide payouts that are proportional to the risk faced and the premium paid, and therefore do not need to assess damages and make climate change attributions.

- Seventh, an **international insurance pool would favor some countries over others** because climate change will impact different countries very differently. Some countries are at risk of frequent tropical storms, for example, and those countries could receive a disproportionate amount of payouts, draining the pool for other countries facing less frequent or less severe types of risks. Some countries may have more insurable risks and would benefit from an international insurance pool, while others may not have many insurable risks and would not benefit.

- And finally, an international insurance pool **could disproportionately favor countries that already have the capacity to participate**. The most vulnerable countries, often with less institutional capacity, could be excluded from benefiting from an international insurance pool as a result of their capacity gaps. For example, joining a multi-country insurance pool implies an often onerous approval process at the national level, as it binds a country to other sovereign states; it often requires Parliamentary approval. Countries with less capacity to understand and to explain how a global insurance pool works, and with overburdened government staff and government administration systems, may experience significant delays in joining the mechanism and benefiting from available resources. For these countries, risk management assistance provided bilaterally or regionally would likely have quicker and more tangible benefits.

While the United States does not support the concept of an international mechanism as proposed by some Parties, we do believe that the Convention has a critical role to play in continuing to raise the profile of, and enhance the implementation of, adaptation action through the implementation of the Cancun Adaptation Framework in order to reduce the risk of loss and damage. The Convention can facilitate greater capacity of developing countries to make decisions about when and how to implement these climate risk management approaches at the national and sub-national levels. It can encourage Parties, relevant institutions, and the private sector to:

- Document work being undertaken;
- Evaluate the impact of climate risk management tools on climate vulnerability and loss and damage;
- Share knowledge and lessons learned;
- Help fill capacity and data gaps; and
- Engage in new implementation efforts, including scaling up or replicating promising pilots.

Furthermore, relevant adaptation bodies and agenda items under the Convention, such as the Adaptation Committee, the Least Developed Countries Group, and the Nairobi Work Program can use the outputs of this loss and damage work program to strengthen understanding and capacity for comprehensive risk management, including as it relates to medium- and long-term national adaptation planning.

It is the strong view of the United States that opportunities for adaptation are far from exhausted. There is still significant room for increasing adaptive capacity and, as a result, considerable opportunity to reduce the risk of loss and damage.

Paper no. 6: United Nations High Commissioner for Refugees, United Nations University, Norwegian Refugee Council and its Internal Displacement Monitoring Centre, Special Rapporteur on the Human Rights of Internally Displaced Persons and International Organization for Migration

SUBMISSION

Human mobility in the context of loss and damage from climate change: Needs, gaps, and roles of the Convention in addressing loss and damage

Joint submission by
United Nations High Commissioner for Refugees, UN University, the Norwegian Refugee Council and its Internal Displacement Monitoring Centre, the Special Rapporteur on the Human Rights of Internally Displaced Persons and the International Organization for Migration

to the SBI Work Program on Loss and Damage
19 October 2012

Contents

1. Introduction

The Cancun Adaptation Framework asked the Subsidiary Body for Implementation (SBI) to make recommendations on loss and damage to the Conference of the Parties for its consideration at COP18 (para 29), as well as to strengthen international cooperation and expertise to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events (para 25) such as sea level rise,

increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.

The United Nations High Commissioner for Refugees (UNHCR), the Norwegian Refugee Council (NRC) and its Internal Displacement Monitoring Centre (IDMC), UN University, the Special Rapporteur on the Human Rights of Internally Displaced Persons, and the International Organization for Migration have jointly prepared this submission in response to Decision 1/CP.16, paragraph 28(d), which invites the engagement of stakeholders with relevant specialized expertise to contribute views on the exploration of approaches to address loss and damage. This joint submission addresses the potential role of the UN Framework Convention on Climate Change—particularly the SBI Work Program on Loss and Damage—in addressing some of the governance, legal, and institutional issues arising from human displacement, migration and planned relocation induced by global anthropogenic environmental change (climate change).

Climate change will worsen the situation in parts of the world that already experience high levels of stressors to livelihoods, food security, and resource availability, among other societal impacts. The consequences of greater variability of climatic factors are already affecting the livelihoods and safety of vulnerable people: less predictable seasons, more erratic rainfall, unseasonable events or the loss of transitional seasons, and the multiplication of climate- and weather-related disasters (e.g. hurricanes/cyclones, floods, droughts, etc.) have significant repercussions for food security, the livelihoods of millions of people, and the mobility choices of vulnerable communities.[1] This issue is of particular relevance for the work programme on loss and damage for two reasons. First, the IPCC Special Report indicates that the magnitude of population movements is likely to increase due to the impacts of climate change on vulnerable exposed communities.[2] Second, most of the existing climate-related displacement and migration occurs in developing countries vulnerable to climate change impacts. Of the 15 countries with the highest number of disaster-displaced people in 2011, for example, 14 were developing countries.[3] Third, States are already acknowledging at ministerial level, for example through the 2011 Dhaka Ministerial Declaration of the Climate Vulnerable Forum,[4] the impacts of climate change on human mobility.

These findings require consideration in the SBI Work Program on Loss and Damage. In particular, the lack of appropriate frameworks, policies and governance structures to address these movements are a barrier to developing effective responses that improve the lives of the migrants, displaced people, and people who are participating or may participate in planned relocation programs related to climatic stressors.

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[1] UNU and UNHCR, 2012, *Climate change, vulnerability and human mobility: Perspectives of refugees from the East and Horn of Africa [Afifi, T., Govil, R., Sakdapolrak, P., and Warner, K.]*

[2] IPCC, 2012. *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.

[3] IDMC, 2012. *Global estimates 2011: People displaced by natural hazard-induced disasters*. Internal Displacement Monitoring Centre, Geneva.

[4] http://daraint.org/climate-vulnerability-monitor/climate-vulnerable-forum

2. Needs related to human mobility in the context of loss and damage

The Cancun Adaptation Framework laid out possible areas of enhanced action on adaptation, including paragraph 14(f), which addresses human mobility in the context of climate change. The paragraph calls attention to the need to implement "*Measures to **enhance** understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels".* Paragraph 14(f) calls for enhanced action on many of the things that are needed to reduce the negative impacts of climate change on human mobility.

Prompted by paragraph 14(f) and the conviction that national and international responses and the legal/normative framework applicable to human mobility challenges, particularly disaster-induced cross-border displacement, remain inadequate to date, Norway and Switzerland launched the Nansen Initiative on 2 October 2012. The Initiative addresses the need for a more coherent and consistent approach to the protection of people displaced externally, i.e. across national borders, including but not limited to people whose movements are triggered by climate change. The overall goal is to build consensus on key principles and elements regarding the protection of persons displaced across borders that sets the agenda for future action at domestic, regional and international levels.[5]

The concept of "loss and damage" refers to both actual incurred negative impacts of climate change as well as future loss and damage, which may be avoided or reduced. Paragraph 28(a) of the Cancun Adaptation Framework invites views and information on possible approaches to address loss and damage across this range of climatic stressors. Thus, in considering approaches to address loss and damage, consideration should be given to many of the elements contained in the Cancun Adaptation Framework which can enhance resilience, provide timely coordination and exchange of information, as well as other measures that can minimize actual and future potential loss and damage.

Three needs must be addressed to help developing countries, especially those vulnerable to the negative impacts of climate change, address climate-related loss and damage. These three needs reflect the three thematic areas of the SBI Work Program on Loss and Damage:

Lack of understanding of actual and potential human mobility linked to climatic stressors
There is an increasing need to assess the risk of loss and damage related to human mobility. This includes both understanding the scope and nature of the challenges, as well as specific methods for measuring, monitoring, and signaling changes in human mobility and loss and damage patterns. Early warning systems are needed to signal when populations may be threatened by displacement related to climatic stressors, as well as threshold-signaling systems to indicate trends in population movements and longer-term population distribution in areas acutely threatened by climatic stressors.

Enhanced understanding will likely be an activity happening at national, regional, and international levels. Since at least the mid-1980s, scientists have linked environmental change to human

[5] Norway and Switzerland, 2012, *The Nansen Initiative: A Protection Agenda for Disaster-induced Cross-Border Displacement*

mobility.[6] Early debates emerged around future projections and predictions of the number of "environmental migrants."[7] More recently, conceptual and empirical work have examined broad relationships between environmental factors and human mobility in different situations.[8] These studies have identified broad patterns as a point of departure for further, more nuanced work on the interactions of climatic and socio-economic factors.[9] Research since that time has determined that environmental factors do play a role in human mobility[10] and emphasizes that some people who are more exposed to environmental stressors—particularly farmers, herders, pastoralists, fishermen and others who rely on natural resources and the weather for their livelihoods—may be the least able to move very far away, if at all.[11]

In the decades ahead, these potentially "limited mobility" populations will face deteriorating habitability of their traditional homelands with fewer options for moving to more favorable places in safety and dignity. The implications of climate change for a wider scope of issues related to human mobility in the medium and longer term have driven a quest for better understanding of the circumstances under which climatic factors affect human decisions about whether to leave, when to leave, where to go, for how long, and when to return. While there has been some progress made on this issue during the last decade,[12] much more evidence is needed concerning the scale, scope and patterns of climate change-related displacement, migration and relocation—and how to account for the costs associated with these forms of population mobility—both in monetary and human capital terms.

Many academic organizations and expert networks, the work of the UN University and its collaborators, non-governmental organizations such as the Norwegian Refugee Council and its Internal Displacement Monitoring Centre, and the UN and other international bodies, are actively working to expand the knowledge base around climate change and human mobility. The Nansen Initiative is an example of a State-led, bottom-up consultative process, aimed at better understanding the situation and dynamics in particularly affected regions, and building up an agenda for further normative, institutional and operational development at different levels.

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6 El-Hinnawy (1985) introduced the first definition for 'environmental migrants' in a United Nations Environmental Program (UNEP) report. His definition has been refined and made more comprehensive by other authors and institutions, such as the International Organization for Migration (IOM) in 2007.

7 See for example Meyers (2005), Christian Aid (2007), IOM and O. Brown 2008 which attempt to place estimate numbers on current and future environmentally induced migration.

8 Jäger et al. 2009 synthesized the results of the "Environmental Change and Forced Migration Scenarios" project (EACH-FOR, www.each-for.eu) –the first global survey of its kind employing fieldwork to investigate environmental change and migration in 23 case studies; Warner et al. 2009 ("In Search of Shelter") brought EACH-FOR results to policy makers, particularly in the UNFCCC process.

9 Hugo (2008), Brown (2008), Morrissey (2009), Tacoli (2009), Laczko and Aghazarm (eds. 2009), Gunvor (2010), Martin, S. (2010), Martin, P. (2010), Afifi (2011),

10 Jäger, J., and others (2009). Environmental change and forced migration scenarios project synthesis report. Deliverable D.3.4 for the European Commission, Warner et al. 2009, Foresight: Migration and Global Environmental Change. 2011. Final Project Report. London: The Government Office for Science.

11 See Betts (2010), Black et al. (2011).

12 See, for example: Foresight: Migration and Global Environmental Change (2011) Final Project Report, the UK Government Office for Science, London.

If the current pattern continues, funding for building the empirical base (research, case studies, etc.) may come from bilateral sources as individual States call for specific studies and dialogue (e.g. country-specific conferences and expert meetings). This has already been the case, for example, with the Nansen Conference on Climate Change and Displacement, hosted by Norway in June 2011, (focused on climate-induced displacement) and several research projects supported by various European and Asian governments (looking mostly at migration, but also displacement), for instance 'Addressing Climate Change and Migration in the Asia Pacific Region' (Asian Development Bank 2012) or the Asia Pacific Migration and Environment Network (APMEN).[13] Regional and international dialogue about research findings are also expected, particularly with the Fifth Assessment Report of the IPCC which will be published in 2014 and will feature at least one chapter reviewing migration and displacement in the context of adaptation to climate change, as well as several additional chapters featuring scientific findings on human mobility in different regions.

Gaps in addressing actual and potential human mobility (technical assistance, finance, planning)

Emerging dialogue around human mobility in the context of climate change focuses on climate variability and the use of existing tools. One of the potential challenges in positions of countries that emphasize a reliance on existing institutional frameworks is that these frameworks have already proven to be insufficient, and they may become even more so in the future. A few examples of policy frameworks addressing this issue are available, such as temporary protection status (TPS) in the United States and Europe or soft-law principles, like the Guiding Principles on Internal Displacement, for protecting people who have been displaced by environmental events. Yet, beyond humanitarian approaches that principally address rapid-onset extreme events, there are significant governance gaps. Population movements related to complex and slow-onset events could pose a major challenge to legal and governance frameworks, in part because responsibility and temporal limits are difficult to assign. Moreover various institutions that deal with different issues related to the impacts of climate change may have a tendency to operate in "silos" and may approach issues such as climate change within narrow sectoral perspectives.

In the medium to longer term, when human mobility related to climatic change is expected to become more apparent, technical assistance, appropriate finance and other resources, and capacity building will be needed. O*perational cooperation* will be critical at the national and regional level to manage flows of people and respond to their material and protection needs. Where movements (displacement, migration, and planned relocation) are internal, cross-ministry national cooperation and capacity building will be needed. These kinds of activities may be funded through existing bilateral channels or potentially through the emerging climate finance architecture. Where movements occur in and across border areas, regional and international cooperation will be necessary. Examples of regional labor migration agreements may be models for the future, but they may take some time to design and implement.

Challenges in policy coherence and coordination

There is also a need for coordination of and efforts to ensure policy coherence on areas relevant to human mobility—both within countries as well as across countries (regional and international).

[13] http://www/apmen.iom.int/en/

Within countries, there is a present and growing need to coordinate issues that affect the livelihoods and safety of people. Thus, planning processes aimed at integrating adaptation into larger social, economic, and development policies of a country will need to consider human mobility.

3. Filling the gaps: the role of the Convention

The UN Framework Convention on Climate Change has a role to play in addressing loss and damage linked to human mobility and climate change. This section outlines three things the Convention can do to help attenuate future loss and damage for populations that are vulnerable to migration, displacement and planned relocation.

Assessment of actual and potential human mobility linked to climatic stressors, with a loss and damage dimension

The Convention has a role to play in appropriately assessing loss and damage, for example:

- The Convention, as well as Parties in their own national and regional contexts, can help fill the knowledge and evidence gaps by requesting targeted research and by collecting views and experiences that have not yet been made available (e.g., how pastoral communities have used migration to increase adaptive capacity). Requesting further evidence would also create a potential synergy between two related convention bodies (the SBI and SBSTA) and between the work programme on loss and damage and the Nairobi work programme—and to incorporate this knowledge, as appropriate, into Parties' respective National adaptation planning processes (NAPs).
- Enhancing data collection, including establishment of foundational requirements, assessment tools and processes to collect data on loss and damage from the adverse effects of climate change related to human mobility at the appropriate level, in a manner that is also sensitive to vulnerable groups and people and the mandates of organizations who strive to assist and protect these people.
- Acting as a repository for expertise and good practice and specific approaches to address loss and damage associated with the adverse effects of climate change relevant to population movements.
- Enhancing the ability of countries to conduct needs assessment and baseline assessments related to human mobility, in order to be able to analyse and make informed decisions on various risk-management policies, including enhancing understanding and coordinating assessment methods for slow-onset changes at national and regional levels, including through regional cooperation and regional activities.
- The process under the Convention and the work in this field could also serve to enhance understanding of processes to monitor and warn about potential triggering of identified tipping points. The Convention should consider establishing early warning and threshold-monitoring systems relevant to human mobility, and ensure that end users have timely access to relevant information (such as that related to drought and livelihood security).

Approaches to address actual and potential human mobility linked to extreme weather and gradual climatic processes, with a loss and damage dimension

Several important gaps related to the management of human mobility and loss and damage that

are appropriately addressed under the Convention:

- Enhancing coordination and cooperation to strengthen social safety networks and resilience-building efforts as part of national and subnational responses to loss and damage from the adverse effects of climate change, including through support under the Green Climate Fund (GCF).
- Giving appropriate consideration to the needs of people who have moved (though migration, displacement and planned relocation) and those who have remained in areas of origin, including those unable to move. Many people will be forced to move from affected areas and adequate provisions will need to be designed in collaboration with relevant international institutions and other stakeholders to consider how to address the issue of migration, displacement and planned relocation. The COP has the capacity to make recommendations to other international bodies along these lines and accordingly to help coordinate their efforts. The Nansen Initiative and other relevant United Nations and other international organizations will engage with the COP in order to share policy-relevant findings and recommendations for its consideration.
- Addressing residual loss and damage from the adverse effects of climate change, including through specific tools, capacity and finance for assessing and addressing risks and impacts from sudden and slow onset changes, including the human mobility dimension. This could involve establishment of a special window under the GCF to help finance appropriate measures related to human mobility, as characterized in paragraph 14(f) of the Cancun Adaptation Framework.
- As human mobility is discussed in the Cancun Adaptation Framework, it needs to be considered by the GCF Board as being eligible for funding.

Coordination of policy and ensuring coherence in policy and action on loss and damage in relation to Paragraph 14(f) of the Cancun Adaptation Framework

The COP should consider an international or series of regional platforms to coordinate policy and actions to address human mobility, including systematic efforts to support responses to slow-onset climatic stressors which may contribute to migration, displacement and/or the need for planned relocation of populations to safer or more habitable locations. The Convention should link with appropriate UN and other international organizations working on human mobility and displacement issues, and link with other UN conventions such as the Convention on Biodiversity and the Convention to Combat Desertification, as appropriate.

- The Convention should also be used to promote policy coherence and relevant regulations in a manner that improves conditions for developing countries in line with country-driven national and regional approaches.
- The Adaptation Committee provides recommendations to Parties (the COP) on adaptation. It therefore could (in combination with Least Developed Country Expert Group (LEG)) collect good practice and lessons learned regarding human mobility in the context of climate change, but also relevant lessons from other areas such as development-related relocation, internal displacement, etc. The Adaptation Committee also has a mandate to liaise with processes outside the Convention to increase profile of adaptation and policy coherence. Activities such as liaising with the Nansen Initiative may also be appropriate.

4. Summary

The United Nations High Commissioner for Refugees (UNHCR), the UN University, the Norwegian Refugee Council (NRC) and its Internal Displacement Monitoring Centre (IDMC), the Special Rapporteur on the Human Rights of Internally Displaced Persons, and the International Organization for Migration have jointly prepared this submission which addresses the **potential role of the UN Framework Convention on Climate Change—particularly the SBI Work Program on Loss and Damage—in addressing issues arising from human displacement, migration and planned relocation** related to global anthropogenic climate change.

Research shows that the consequences of greater variability of climatic factors already cause loss and damage in vulnerable countries and communities: less predictable seasons, more erratic rainfall, unseasonable events or the loss of transitional seasons, and the multiplication of natural disasters (e.g. hurricanes/cyclones, floods, droughts, etc.) have significant repercussions for food security, the livelihoods of millions of people, and mobility choices of affected communities.[14] The IPCC Special Report on Extreme Events (SREX) noted the magnitude of population movements is likely to increase due to the impacts of climate change on vulnerable exposed communities.[15] Most existing weather- and climate-related displacement and migration occurs in developing countries that are vulnerable to the expected impacts of climate change impacts.[16]

These findings require consideration in the SBI Work Program on Loss and Damage. The Convention has a role to play in facilitating the increased understanding and assessment of population movements related to the negative impacts of climate change, in facilitating activities that address these movements through capacity building, technical assistance and finance, and in facilitating policy coherence and coordination.

Three needs must be addressed to help developing countries, especially those vulnerable to the negative impacts of climate change, address climate-related loss and damage. These three needs reflect the three thematic areas of the SBI Work Program on Loss and Damage:

1. **Lack of understanding of actual and potential human mobility linked to climatic stressors.** There is an increasing need to assess the risk of loss and damage related to human mobility, including understanding the scope and nature of the challenges, as well as specific methods for measuring, monitoring, and signaling changes in human mobility and loss and damage patterns. **Early warning systems** are needed to signal when populations may be threatened by displacement related to climatic stressors, as well as threshold-signaling systems to indicate trends in population movements and longer-term population distribution in areas acutely threatened by climatic stressors. More **evidence** is needed concerning the **scale, scope and patterns of climate change-related displacement, migration and relocation**—and **how to account for the costs** associated with these forms of population mobility—both in monetary and human capital terms.

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[14] UNU and UNHCR, 2012, *Climate change, vulnerability and human mobility: Perspectives of refugees from the East and Horn of Africa [Afifi, T., Govil, R., Sakdapolrak, P., and Warner, K.]*

[15] IPCC, 2012. *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.

[16] IDMC, 2012.

2. **Gaps in addressing actual and potential human mobility (technical assistance, finance, planning).** Current institutional frameworks to manage mobility already face insufficiencies in mandate and capacity, and these gaps are likely to grow in the future. Beyond humanitarian approaches that principally address rapid-onset extreme events, there are **significant governance gaps for population movements** in the context of climate change which concern issues of loss and damage. **Complex and slow-onset climatic processes** could pose a major challenge to legal and governance frameworks. **Operational cooperation** will be critical at the national and regional level **to manage flows of people** and respond to their needs. Where movements (displacement, migration, planned relocation) are internal, **cross-ministry national cooperation and capacity building** will be needed. Where movements occur in and across border areas, **bilateral, regional and international cooperation** will be necessary. Technical assistance, appropriate finance and other resources, and capacity building in loss and damage related areas will be needed.
3. **Challenges in policy coherence and coordination.** There is a need for **coordination of and efforts to ensure policy coherence** on areas relevant to human mobility—both within countries as well as across borders (regional and international).[17] Within countries, a need exists and will increase to coordinate issues impacting on the **livelihoods and safety** of people. **Planning processes** will be pressed to integrate policies that address human mobility into larger social, economic and development policies of countries and regions.

Filling the gaps: the role of the Convention

The UN Framework Convention on Climate Change has three roles to play in addressing loss and damage linked to human mobility and climate change:

1. **Facilitating the assessment of actual and potential human mobility linked to climatic stressors.** The Convention can **fill knowledge and evidence gaps** by requesting targeted research and by collecting views and experiences that have not yet been made available. It can **enhance data collection**, including the establishment of foundational requirements, assessment tools and processes to collect data on loss and damage from the adverse effects of climate change related to human mobility at the appropriate level, in a manner that is also **sensitive to vulnerable groups and people and the mandates of organizations who strive to assist and protect these people**. The Convention can **help fill knowledge and evidence gaps by requesting targeted research and acting as a repository for good practice** relevant to population movements, and **enhance the ability of countries to conduct needs and baseline assessments** related to human mobility. The Convention should **facilitate early warning and threshold-monitoring systems** relevant to human mobility.
2. **Facilitating the development of approaches to address actual and potential human mobility linked to extreme weather and gradual climatic processes, in particular via appropriate funding.** The Convention can help to **enhance coordination and cooperation to strengthen social safety networks and resilience-building efforts** as part of national and subnational responses to loss and damage from the adverse effects of climate change. The Convention can achieve this by **coordinating and supporting technical assistance and capacity building**. This could involve **establishment of a special window under the Green Climate Fund to help finance appropriate measures related to human mobility**.
3. **Facilitating the coordination of policy and greater coherence of policy and action.** Consider an **international or series of multipurpose regional risk management platforms to**

[17] IOM, 2011, International Dialogue on Migration, "Climate Change, Environmental Degradation and Migration"

coordinate policy and actions to address human mobility. The Convention may **coordinate with appropriate UN and other international organizations working on human mobility** and displacement issues, and link with other UN conventions such as the Convention on Biodiversity and the Convention to Combat Desertification, as appropriate. The Convention can **facilitate policy coherence and relevant regulations** related to population movement in a manner that improves conditions for developing countries in line with country-driven national and regional approaches.

5. Conclusions

In coming decades, the way countries manage adaptation to climate change will contribute to driving patterns of population distribution in areas of the world that are highly vulnerable to its effects. A more nuanced assessment, approaches to address, and efforts to coordinate population movements related to the negative impacts of climate change are all needed. The three roles of the Convention outlined here will help ensure that strategies vulnerable countries and people use will *contribute to increased resilience to climate change and reduce actual and potential loss and damage related to population movements*.