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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Subsidiary Body for Implementation

Thirty-eighth session

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Item 9 of the provisional agenda

National adaptation plans¹

Experience with the application of the guidelines for the national adaptation plan process for the least developed country Parties

Submissions from Parties and relevant organizations

1. The Conference of the Parties, by decision 5/CP.17, invited Parties and relevant organizations to submit to the secretariat, by 13 February 2013, information on their experiences with the application of the guidelines for the national adaptation plan process for least developed country Parties, for compilation by the secretariat into a miscellaneous document for consideration by the Subsidiary Body for Implementation at its thirty-eighth session.²

2. The secretariat has received seven such submissions. In accordance with the procedure for miscellaneous documents, the five submissions from Parties³ and the submission from an intergovernmental organization⁴ are attached and reproduced* in the language in which they were received and without formal editing. In line with established practice, the one submission from a non-governmental organization is available on the UNFCCC website.⁵

¹ Decision 1/CP.16, paragraphs 15–18.

² Decision 5/CP.17, paragraph 7.

³ Also available at <<http://unfccc.int/5902>>.

⁴ Also available at <<http://unfccc.int/3714>>.

* 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.

⁵ Available at <<http://unfccc.int/3689.php>>.

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Paper no. 1: Jamaica and United States of America

Jamaica-USAID submission on National Adaptation Planning

In 2012 Jamaica renewed a National Adaptation Planning Process that addresses climate change impacts in a way that is well coordinated with its broader development goals. Those development goals are laid out in *Vision 2030 Jamaica: a National Development Plan*, available at: <http://www.vision2030.gov.jm/>. Jamaica has taken a number of steps to address climate change under the leadership of Prime Minister Portia Simpson Miller: Prime Minister Portia Simpson Miller created a new Ministry of Water, Land, Environment, And Climate Change (WaLECC). The Ministry has created a Climate Change Advisory Committee, and is in the process of setting up a Climate Change Department within the Ministry.

The Government of Jamaica, led by the WaLECC and the Meteorological Service, recognized that climate change would affect most aspects of the *Vision*, and that in order to achieve the *Vision*, mitigation and adaptation efforts would have to be coordinated to fully support implementation of the *Vision*. Prime Minister Miller called on the WaLECC to develop a new national policy framework that would begin a process of building support and understanding across different sectors of the economy, so that the government and private actors responsible for those sectors could understand the effects of climate change on the Jamaican economy. Climate change imposes social, economic and development stresses; it is not only an issue that is impacting the environment. There is strong interest in sharing responsibility for action that goes beyond the WaLECC Ministry that includes Jamaican, bilateral and multilateral partnerships.

To launch the policy process, the Government of Jamaica partnered with USAID to organize a stakeholder workshop called *Climate Change: Toward the Development of a Policy Framework for Jamaica*. The workshop was held in Kingston on July 26-27, 2012. The event was attended by more than 150 individuals, including representatives from ministries, and other entities within the Government of Jamaica; NGOs and civil society; academia; the private sector; and international development partners. Sessions built on the *Vision 2030 Jamaica – National Development Plan*, the Second National Communication of Jamaica to the United Nations Framework Convention on Climate Change (UNFCCC), and the Jamaica Pilot Program for Climate Resilience.

The workshop consisted of a series of small group activities using the *Vision 2030* as starting point. Key national priorities identified in the *Vision* were examined for their vulnerabilities to climate variability and change. The working groups consisted of a mix of participants from multiple sectors; that is, a workgroup on agriculture might have people from a farmer cooperative or NGO, the Water Authority, the energy ministry, and the transport ministry. The approach emphasized that development, and resilience to climate change, cut across sectors and interests; adaptation is everybody's business.

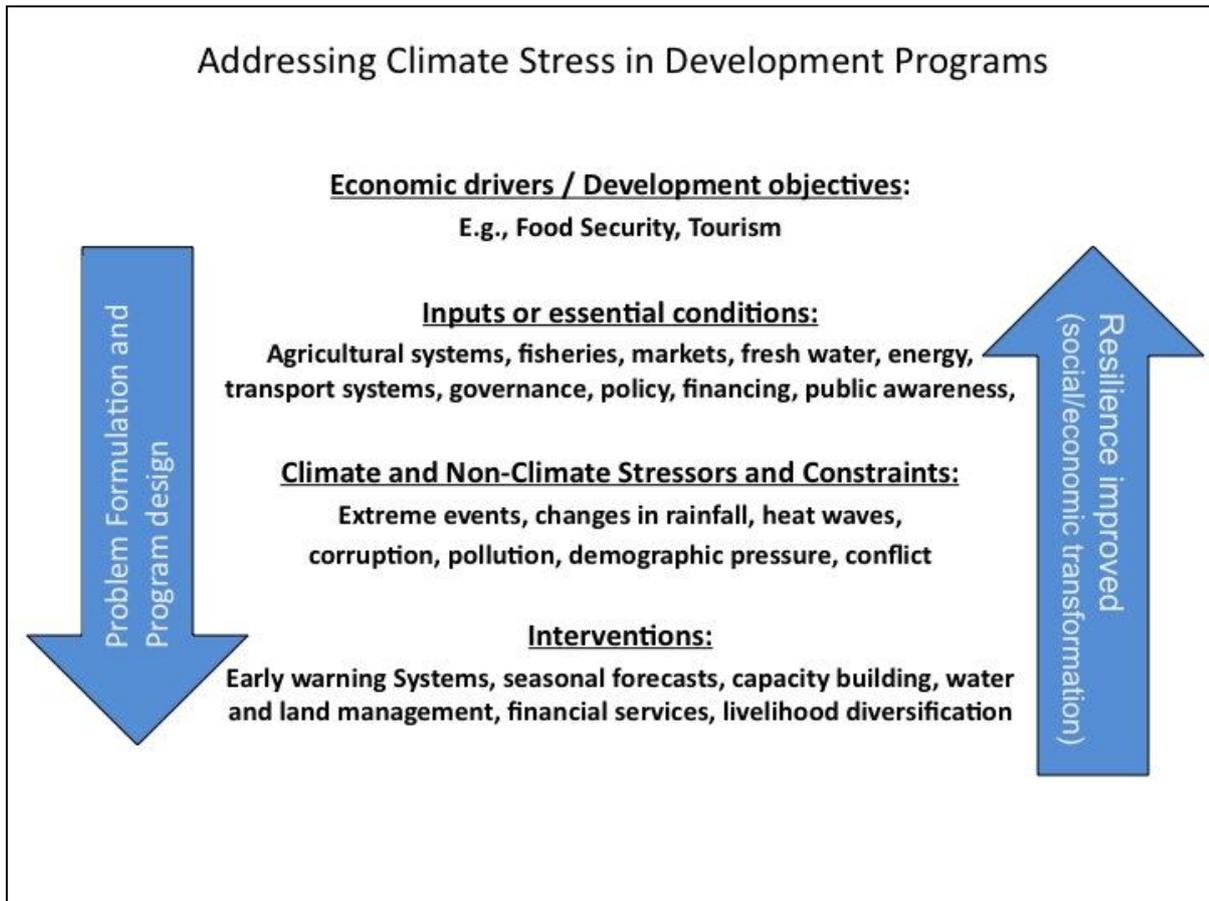


Figure 1 shows the framework that guided the exercises. Participants started by discussing what are Jamaica’s priority economic drivers and development objectives, as identified in the *Vision 2030*. Next, they discussed what inputs and conditions are necessary to achieve the objectives in the first step. Next, they identified stresses and constraints on those inputs. Climatic and non-climatic stresses were discussed, because addressing only one category of stress would not enable full use of the inputs. Finally, they began briefly identifying interventions that could alleviate the stresses and constraints, enabling full effective use of the inputs, which should lead to achievement of overall objectives.

Participants worked through this process in a series of small group exercises aimed at eliciting inputs to the climate change policy framework. On the first day, these exercises focused on identifying the key inputs and threats to Jamaica’s primary economic sectors.

In identifying key inputs to economic sectors, participants found that many sectors relied on the same inputs and enabling conditions. Among the most common were water, energy, labor, and infrastructure.

They then identified the most important climate and non-climate threats to those inputs. Examples of these threats include higher temperatures, tropical storms, heat waves, land use change, pollution, and crime.

Participants also discussed interdependencies between sectors – for example, how tourism depends on a healthy natural environment and the reliable provision of energy and water. The discussions also highlighted some of the constraints that can prevent these key economic sectors from performing optimally. These constraints include the lack of a variety of factors such as human and social capital, incentives, and implementation and enforcement of existing policies and regulations.

On the second day, small group exercises focused on actions, policies, and resources needed to cope with the climate threats identified on the first day. Dialogue and discussion allowed participants to learn from one another about ongoing projects in Jamaica that are addressing climate change.

Participants identified gaps in existing efforts and listed some of the measures, resources, and policies needed to fill those gaps. For example, participants noted the need for increased training and capacity building, robust research and assessments, safeguarding of infrastructure, financing, information, and data management systems, among many others.

They also recognized how activities in one sector could benefit or hamper outcomes in another. For example, while a group focused on transport suggested moving roads inland to reduce storm damage, the tourism group pointed out that doing so could inhibit access to hotels and other tourist destinations.

Participants considered opportunities for climate change mitigation. For example, industries concerned about unreliable power supply could prioritize clean energy technologies to address those shortages, while at the same time reducing Jamaica's CO₂ emissions. Several participants noted the usefulness of working in cross-disciplinary teams during the table exercises, and suggested that they continue to work in this fashion going forward.

Jamaica is now engaged in drafting a comprehensive climate change policy framework. Though the process is still underway, it is likely to result in an overarching policy that will identify roles and responsibilities for key actors across the government. It will also call for action plans from each government ministry responsible for vulnerable components of the *Vision 2030*. Those action plans will identify steps to be taken in the near term and longer term. Jamaica's Meteorological Service is already taking steps to improve its understanding of the information needs of decision makers, and is coordinating efforts of several development partners (PPCR, USAID, NOAA, EU, Czech Republic) to build its capacity to meet those needs. Next steps include a thorough mapping of current and planned adaptation projects in the country. Such a mapping will enable the government to identify gaps and take the lead in coordinating the efforts of development partners and national investments to close these gaps.

By taking such an integrated, development-focused approach, Jamaica is integrating adaptation and mitigation efforts and putting them in the service of its national development plan. The effort demonstrates to all that addressing climate change is a national development issue of high priority, not just an environment issue.

Paper no. 2: Malawi

Submission by Malawi on experiences on the application of the NAP guidelines (decision 5/CP.17, para 7).

The Government of the Republic of Malawi welcomes the invitation by the COP to submit views and information on experiences on the application of guidelines for the formulation of National Adaptation Plan (NAP) process for LDCs in accordance with decision 5/CP.17, paragraph 7. Concurring with the 2012 submission by the LDCs on the support to NAP process in LDCs and COP 18 decisions on NAP, Malawi attaches high priority to the urgency of initiating the NAP process to address the on-going and emerging threats of climate change through comprehensive climate change adaptation efforts in addition to the continued support to implementation of the National Adaptation Programme of Action (NAPA) to address the urgent and immediate adaptation needs.

Malawi further recalls the COP 18 decision regarding the guidance to the Global Environment Facility (GEF), as the operating entity of the financial mechanism of the Convention entrusted with the management of the Least Developed Countries Fund (LDCF), to enable the preparation of NAPs by the LDCs that request funding support from the LDCF. Malawi further notes the SBI conclusion on this matter at COP 18 that requests the GEF to respond to the guidance on providing financial support to the LDCs by COP 19. We look forward to further details from the GEF on how we can access financial support for our NAP process under the LDCF.

Malawi appreciates the work of the LDC Expert Group (LEG) in developing and sharing the NAP technical guidelines based on the initial guidelines as per decision 5/CP.17 (Annex: Initial guidelines for the formulation of national adaptation plans by Least Developed Country Parties), and the overview publication of the NAP process, during COP 18. Malawi expects that these technical guidelines will be used as a guiding document, and will assist in the formulation of the NAP. The guidelines are expected to establish a country-driven process to formulate NAP as per specific national circumstances. The summary document will be very useful in our efforts to brief our policy makers, as we work towards establishing our national framework and road map for the NAP process. We would encourage the LEG to consider producing many more outreach materials that will assist us in communicating the NAP process, opportunities and benefits that it will offer, and on specific topics from the guidelines to facilitate our work. We recognise that many developed (and some developing) countries have NAP-like processes well underway, and have produced many outputs already, including some national, sectoral and subnational plans (for cities, etc), we hope the LEG can help in compiling examples and lessons from these processes and products, so we can learn by doing. As part of our strategy for the NAP process, we will indicate what products we expect to produce, and we welcome any guidance and support the LEG can provide in terms of how to best present these outputs and our adaptation plans.

Our needs for support, both technical and financial, will become clearer as we embark on our NAP process. We would welcome any opportunity to communicate these to the SBI/COP. Perhaps the SBI can welcome such submissions in the next session, so the LEG and the GEF can take these into account in designing their support, in addition to any modalities that they would have established by then.

Malawi participated at the side-event on NAP organized by the Gambia and IIED in Doha in December 2012, where the Honourable Minister for Environment and Climate Change Management presided over. In this regard, we do appreciate the initiatives undertaken by development partners and non-governmental organizations in developing ideas, generating awareness, building capacities for climate adaptation planning, and promoting the NAP process.

Malawi views the NAP process that was established by decision 1/CP.16 as having two platforms. One is a NAP process at the COP level, and the ongoing discussions under the SBI and COP on NAPs is one of these platforms. The second is the NAP process that will be implemented at the country level. At the COP level, we would also like to see a medium and long-term approach, where we can define a road map for the foreseeable future. Malawi views the initial guidelines in decision 5/CP.17 for the formulation of NAPs as initial guidelines for the NAP process. We expect that the COP should develop further guidelines for other components of the NAP process. We view the guidance to the GEF on provision of financial support to LDCs under decision 12/CP.18 as a further elaboration of guidelines for the NAP process.

In the spirit of decision 1/CP.16, the next set of guidelines should be for the implementation of NAPs. We would propose establishing a timetable for assessing how things are going in LDCs in preparing NAPs, and then allowing

Parties to make submissions on how the NAPs can be implemented – bearing in mind that NAPs will contain policies, projects and programmes. We could then have a discussion under the SBI to consider the submissions and develop a decision on how NAPs would be implemented. We expect this to be a broad discussion that covers the many channels that we can use to implement NAPs. We would propose such submissions to be invited in early 2014, so we can conclude on implementation of NAPs at the COP in 2014.

Another important set of guidelines still at the SBI/COP level, would be on how the SBI can successfully do its work under paragraph 37 of decision 5/CP.17 at SBI 42. Based on the report of the 22nd meeting of the LEG, the LEG is looking at methods for monitoring and evaluation (M&E). Malawi feels that the work of the LEG on M&E should be used by the SBI in evaluating the NAP process, and we should fully support the LEG in making good progress on this topic.

The second platform of NAPs is in the process at the national level, Malawi is ready to embark on formulating adaptation plans. We will be communicating to the LEG information on our progress through the surveys that the LEG conducts at each SBI session. We look forward to hearing about the experience of other LDCs so we can learn more.

The above notwithstanding, Malawi feels that, it is too early to revise the initial guidelines for the formulation of NAP by LDCs as per decision 5/CP.17. However, Malawi, just like other LDCs, has adequate and useful experience regarding the preparation and implementation of NAPA which would be valuable in the formulation of NAPs. *Based on the NAPA, Malawi is implementing a Climate Adaptation for Rural Livelihoods and Agriculture (CARLA) Project* which will run for a period of three years from 2012 up to 2015. The goal of the CARLA Project is to improve resilience to current climate variability and future climate change by developing and implementing adaptation strategies and measures that will improve agricultural production and rural livelihoods. Core funding has come from the Least Developed Countries Fund of the Global Environment Facility to a tune of US\$ 3million, whereas supplementary financing has come from the Smallholder Crop Production and Marketing Project (SCPMP) financed by the African Development Bank in the Ministry of Water Development and Irrigation. It is estimated that up to 30,000 households (smallholder farmers and other community members) will be the primary beneficiaries from the project. The expected key outcome of the CARLA Project is improved resilience to climate variability and future climate change. Malawi is also developing a project preparation grant for a NAPA project entitled **“Implementing urgent adaptation priorities through strengthened decentralized and national development plans”** with the UNDP to a tune of US\$4.5m.

In conclusion, Malawi urges developed country Parties, development partners, UN and international organisations, to provide adequate financing through direct access and flexible procedures within 2013 so that LDCs can start the NAP formulation process without delay. Furthermore, Malawi awaits a timely response from GEF to the COP decisions in order to provide funding support to LDCs for the formulation of NAPs.

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

Submission by Nepal on behalf of the Group of the Least Developed Countries on Experiences on the Application of Guidelines for the Formulation of National Adaptation Plan Process for Least Developed Countries

On behalf of the Group of the Least Developed Countries (LDC Group), Nepal welcomes the invitation of the UNFCCC Secretariat to submit views and information on experiences on the application of guidelines for the formulation of National Adaptation Plan (NAP) process for Least Developed Countries (LDCs) in accordance with decision 5/CP.17, paragraph 7. Recalling the 2012 submission by the LDC Group on the support to NAP process in LDCs and COP 18 decisions on NAP, LDC Group attaches high priority to the urgency of initiating NAP process to address the on-going and emerging threats of climate change through medium- and long-term climate change adaptation efforts in addition to the continued support to implementation of the National Adaptation Programme of Action (NAPA) to address the urgent and immediate adaptation needs.

The LDC Group further recalls the COP 18 decision regarding the guidance to the Global Environment Facility (GEF), the operating entity of the financial mechanism of the Convention, for the operation of the Least Developed Countries Fund (LDCF), to provide funding to enable the preparation of NAP by the LDCs.

In cognizant of the fact that adaptation is a priority for the LDCs, the group further reaffirms that a significant share of new multilateral funding for adaptation should flow through the Green Climate Fund (GCF), and requests the GCF Board to balance allocation of funds between adaptation and mitigation activities.

The LDC Group appreciate the work of the LDC Expert Group (LEG) in developing and sharing the NAP technical guidelines based on the initial guidelines as per decision 5/CP.17 (Annex: Initial guidelines for the formulation of NAPs by LDCs), and overview of the NAP process during COP 18. The LDC Group expects that the technical guidelines will be used as a guiding document, and will assist in the formulation of NAP. The guidelines are expected to help establish a country-driven process to formulate NAP as per specific national circumstances.

The LDC Group also takes note of the initiatives undertaken by various development partners and non-governmental organizations in developing ideas, generating awareness, building capacities for climate adaptation planning, and promoting NAP process in some countries, including 'training on preparing NAPs in South Asia' in November 2012 and the side-event on NAP organized by the Gambia and International Institute for Environment and Development (IIED) in Doha in December 2012.

Based on the information to date and lack of clarity on how the NAP process will be funded, it is too early to share experiences in using the initial guidelines for the formulation of NAP by LDCs as per decision 5/CP.17, and also the use of NAP technical guidelines prepared by the LEG. However, LDCs have ample experience regarding the preparation and implementation of NAPA which would provide valuable input in the formulation of NAP.

Those LDCs who are participating in the Strategic Programme for Climate Resilience (SPCR) as a part of the Pilot Programme for Climate Resilience (PPCR) with support from the Climate Investment Fund are engaged in developing climate adaptation planning as a long-term effort for making development and infrastructures climate resilient. The LDC Group expects that experiences of the LDCs and other countries participating in the PPCR would be helpful in formulating NAPs in the LDCs. It will be of great use if a forum was found to help LDCs and other countries participating in this programme to share their experiences.

The experiences of those LDCs which are in different stages of conceptualising the start of the NAP process would also be valuable to other LDCs as they embark on the formulation of their NAPs.

LDC Group stands ready for implementation of initial guidelines as well as technical guidelines as soon as possible. LDC Group urges developed country parties, development partners, UN and international organisations, to provide adequate technical and funding support with easy access and flexible procedure within 2013 so that LDCs can start NAP formulation process without delay. Furthermore, the LDCs anticipate speedy response from GEF to the COP decisions in order to provide funding support to LDCs for the formulation of NAPs.

The LDC Group considers that information on experiences in using the NAP guidelines could be shared once full-fledged funding and capacity building support is in place.

Paper no. 4: Sri Lanka

Sri Lanka's experiences with the application of guidelines for the national adaptation plan process for least development countries.

Being a highly vulnerable country, Sri Lanka has started to prepare the National Adaptation Action Plan based on the initial guideline for the formulation of National Adaptation Plans (NAP) by least developed country parties.

Elements identified under this guideline were fully relevant and applicable to Sri Lanka for the preparation of National Adaptation Plan. However, the major limitation of this guideline is that this guideline itself is not sufficient to prepare NAPs. Sri Lanka uses its National Climate Change Policy and National Climate Change Strategy for preparation of NAPs. Even though we have above policy and strategy, preparation of NAPs has to be included assessments on climate change impacts for different Climatic regions of the country. Assessment of adaptation needs vary with specific climatic regions of the country and with the adverse impacts of climate change for that region. Therefore, it is necessary to go to the ground level and identify specific adaptation needs. To do that, Sri Lanka needs sound technical expertise, very good database with research outcomes, and financial resources.

Therefore, it is necessary to highlight the technical and financial needs for developing countries to prepare NAPs for using this guideline.

**PROCESS AND ROADMAP FOR FORMULATING NATIONAL ADAPTATION PLANS
FOR TANZANIA**

**Submission by the United Republic of Tanzania on the application of the NAP guidelines
(decision 5/CP.17, para 7).**

The United Republic of Tanzania welcomes the invitation by the COP to submit views and information on experiences on the application of NAP guidelines for LDCs in accordance with decision 5/CP.17, paragraph 7.

Tanzania fully aligns itself with the submission of Nepal on behalf of the LDCs, and given the urgency of the climate change problem, attaches great importance to the country-driven nature of the NAPs and the urgency in LDCs receiving support as soon as possible in order to make good and rapid progress in the elaboration and implementation of NAPs.

Climate change is already happening and is expected to have complex, long term consequences to the livelihood, environment and production sectors in Tanzania. In the last 40 years, the country has experienced severe and recurring droughts with devastating effects to agriculture, water and energy sectors. Currently more than 70% of all natural disasters are hydro-meteorological related, and are mostly linked to droughts and floods. For instance, the droughts of 2003, 2005 and 2009 severely affected agriculture, energy and business sectors. The environmental and ecological impacts of these droughts were alarming. In addition, the floods of 2008, 2009, 2011, were particularly devastating on humans, property and infrastructure. These extreme weather events had severe social and economic implications.

In Tanzania climate change is addressed in the context of environmental management. The overall policy framework for environmental management is the National Environmental Policy (1997). The policy recognizes environment as a cross-cutting issue that requires a holistic approach and multi-level management. In this perspective, the policy addresses climate change by involving different sectors, local government authorities and their respective stakeholders. The Environmental Management Act (EMA), 2004 is a legal framework for environmental management, and it directly covers the issue of adaptation planning including the new efforts under NAPs. It empowers the Minister Responsible for Environment to coordinate all environmental matters in the country. The Act also empowers the Minister to take measures to address climate change, particularly the impacts of climate change and adaptation measures and by implication, the mandate to oversee the NAP process for Tanzania. Furthermore, the Act empowers sectors and Local Government Authorities (LGAs) to undertake various environmental and climate change roles and responsibilities that are relevant to their core functions.

In recognizing the devastating impacts of climate change, the Government has put in place a number of initiatives to address the challenges of climate change. Some of these initiatives include development and implementation of Strategy for Urgent Actions on Land Degradation and Water Catchments (2006); National Adaptation Programme of Action (NAPA) (2007); National Adaptation Strategy and Action Plan (2009); National Climate Change Strategy (2012), Guidelines for Integrating Climate Change Adaptation into Policies, Plans and Programmes (2013), National Climate Change Communication Strategy (2012); Mainstreaming climate change issues into MKUKUTA II; and implementation of few concrete adaptation projects. There are also various sectoral initiatives that aim at addressing the impacts of climate change and enhance resilience of communities.

The NAP process will help the country address challenges that still exist, despite the above policies and programmes that are in place. These challenges among others include: low level of awareness and understanding of climate change issues among stakeholders; inadequate information on climate change impacts and vulnerability; inadequate capacity to address climate change impacts; and lack of medium and long term interventions.

In addressing these challenges, the Government has realised the need to formulate a more sophisticated, medium and longer-term strategic responses on adaptation. This is also in line with the Cancun Agreements at COP 16 in 2010 which among others established a process to enable LDCs to formulate and implement their National Adaptation Plans (NAPs) building upon their experience in preparing and implementing National Adaptation Programme of Action (NAPA) as a means of identifying and addressing medium and long-term adaptation needs.

1. Objective of NAPs for Tanzania

The objective is to establish a process for formulating, and eventually implementing, sectoral and National Adaptation Plans for Tanzania that will address medium and long-term adaptation needs. The NAP process being designed will be a comprehensive approach for addressing adaptation to climate change in the country, and will provide guidance to all government entities and all partners interested in supporting this country in adaptation.

2. Approach, Scope and methodological approach

3.1 Approach

The general approach to be followed is based on the technical guidelines for the NAP process prepared by the Least Developed Countries Expert Group (LEG) (available at unfccc.int/NAP). The LEG guidelines were based on initial guidelines adopted by the COP in 2011 (decision 5/CP.17), and arrange the NAP process into four (4) main elements which are; laying the groundwork and address gaps, preparatory elements, implementation strategies and reporting monitoring and review. Indicative steps, activities and sample outputs presented under each element. For Tanzania, we have selected steps and activities from the LEG technical guidelines of December 2012 as finalized by

LEG meeting held in Togo in March, 2013 that reflect what is available and what else needs to be put in place for an effective NAP process.

The NAP process for Tanzania will be led by the Vice President’s Office, Division of Environment and is expected to produce outputs that will include various study reports and plans at national and sectoral levels (the NAP). The NAP will be produced after every 5 years, and will be the main national instrument for guiding work on adaptation. The elements and steps to be undertaken for the NAP process showing indicative activities is as shown in the table below.

Table 1. Elements and steps for the NAP process showing indicative activities

Element A. Lay the Groundwork and Address Gaps	
Steps	Indicative Activities
1. Initiating and launching of the NAP process	<ul style="list-style-type: none"> a. Operationalize the NAP process through provision of support b. Conduct briefings to policy makers about climate change adaptation challenges and opportunities, and the NAP process in particular c. Enhance a national vision and mandate, for the NAP process d. Define a framework and strategy as well as a roadmap, including sequencing of various NAPs and monitoring and evaluation plan for the NAP process
2. Stock-taking and gap analysis: identifying available information on adaptation activities, climate change impacts, vulnerability and adaptation and assessing gaps and needs of the enabling environment for the NAP process	<ul style="list-style-type: none"> a. Conduct a stocktaking of on-going and past adaptation activities b. Synthesize available analyses of current and future climate at the broad national level including vulnerability analyses and studies on the economic impacts of climate change c. Coordinate compilation and developing a (distributed/shared) database for the NAP process d. Conduct a gap analysis to assess capacities and weaknesses, adequacy of available data and information, and resources to effectively engage in the NAP process e. Assess potential barriers to the planning, design and implementation of adaptation activities
3. Addressing capacity gaps and weaknesses in undertaking the NAP process	<ul style="list-style-type: none"> a. Enhance enabling institutional and technical capacity for the formulation of the NAP b. Identify and enhance awareness of potential opportunities for the integration of climate change adaptation in development planning at different levels c. Step up the implementation of climate change communication programmes, public awareness-raising and education

4. Comprehensively and iteratively assessing development needs and climate vulnerabilities	<ul style="list-style-type: none"> a. Compile information on main development objectives, policies, plans and programmes b. Identify synergies between development and adaptation objectives, policies, plans and programmes with a view to identifying risks to investment and opportunities for collaboration and realizing co-benefits (start with climate-proofing), including economic benefits
Element B. Preparatory Elements	
Steps	Indicative Activities
1. Analyze climate risks	<ul style="list-style-type: none"> a. Analyze current climate to identify trends in variables and indices that could be used to support planning and decision-making b. Characterize broad future climate risks and levels of uncertainty using scenario analysis at the national level c. Communicate projected climate change information to all stakeholders and the public
2. Assessing climate vulnerabilities at the sector and other levels, and identifying adaptation options	<ul style="list-style-type: none"> a. Develop/downscale future climate change and socio-economic scenarios for target areas and sectors b. Assess vulnerability to climate change at the sectoral levels (by applying applicable frameworks) c. Rank climate change risks and vulnerabilities d. Identify and categorize adaptation options at multiple scales to address priority vulnerabilities
3. Reviewing adaptation options	<ul style="list-style-type: none"> a. Appraise individual adaptation and apply decision analysis to identify adaptation priorities at the sectoral levels b. Compile and communicate sectoral plans or strategies
4. Compiling and communicating a National Adaptation Plan	<ul style="list-style-type: none"> a. Aggregate sectoral adaptation priorities into a draft National Adaptation Plan through a stakeholder ranking process and avail the draft for review b. Integrate review comments into the prepared National Adaptation Plan and process its endorsement at the national level as defined in the mandate for the NAP process c. Communicate and disseminate the NAP and other NAP outputs widely to all stakeholders in the country
5. Integrating climate change adaptation into national development and sectoral planning	<ul style="list-style-type: none"> a. Identify opportunities and constraints for integration of climate change in planning b. Build and enhance capacity for integrating climate change in planning c. Facilitate the integration of climate change adaptation into existing nation planning processes

3.2 Scope

The scope of this work will include the following considerations:

- a) In the preparation of the NAPs the focus should be on medium and long term interventions. The medium term should be up to 5 years, while beyond 5 years such initiatives will be considered to be long term;
- b) Geographical coverage will be Tanzania mainland with more emphasis on the most vulnerable areas;
- c) Take into consideration National development objectives, Policies, strategies, plans and programmes (National Climate Change Strategy 2012, MKUKUTA II, NEAP 2012, EMA 2004, Sectoral Development plans etc);
- d) Be in line with National development Vision 2025 and First National Communication (2003) on UNFCCC;
- e) Be in line with Cancun Agreements and Technical Guidelines for formulation of NAPs 2012 as revised by LEG in March, 2013;
- f) Build on NAPA (2007);
- g) The gender roles have to be reflected in the NAPs;
- h) The process of developing NAPs should be gender sensitive, taking into account vulnerable groups and ecosystems;
- i) Emphasis should be on most vulnerable sectors taking into account lessons learned from NAPA processes and implementation; and
- j) Take into consideration risks associated with impacts of Climate Change.

3.3 Methodological approach

The approach to develop NAP will include:

- a) Information collection:
 - Conduct comprehensive literature review on Climate change vulnerabilities and Impacts highlighting the challenges, gaps and adaptation needs including existing sectoral policies, plans, strategies and programmes;
 - Collect primary information and prepare technical papers on key thematic areas and sectors; and
 - Conduct stakeholders and expert consultation for the purposes of gathering relevant information.
- b) Production of various report including:-
 - Synthesis report of available information;
 - Technical reports;
 - Gaps and need analysis reports;
 - Stock taking reports;
 - vulnerability and adaptation report;
 - Report on Climate Risks; and
 - Report on appraisal of adaptation option
- c) Inception Workshop: present preliminary report highlighting gaps and challenges in addressing climate change impacts;
- d) Prepare draft NAP document based on the indicated outline;

- e) Undertake series of stakeholders' workshops;
- f) Undertake costing of adaptation interventions using appropriate methodologies;
- g) Prepare Implementation strategies; and
- h) Prepare reporting monitoring and review modalities.

3. Tasks to be undertaken during formulation of NAPs

Main tasks to be undertaken in the formulation of NAPs will be to:-

- a) Assess the institutional arrangements, programmes, policies and capacities in the context of NAPs;
- b) Assess status of integration of Climate Change Adaptations into National and local Government Authorities Plans;
- c) Assess available information on climate change impacts, vulnerability and adaptation, measures taken to address climate change, and gaps and needs at all levels;
- d) Undertake comprehensive assessments of development needs and climate vulnerabilities;
- e) Undertake stakeholders consultations including national stakeholders workshop to review draft NAP document;
- f) Assess and indicate linkage between NAPA and NAP priorities;
- g) Develop criteria for selecting priority programmes and themes;
- h) Identify thematic/sectoral areas that require further assessment;
- i) Assess and develop appropriate medium and long term adaptation needs and propose relevant interventions including institutional and policy measures;
- j) Develop programme profiles based on the following but not limited to.
 - Title
 - Rationale/justification in relation to climate change, including sectors concerned
 - Description
 - Objectives and activities
 - Potential outcomes
 - Medium and long term outputs
 - Implementation
 - Resources
 - Institutional arrangement
 - Risks and barriers
 - Monitoring and evaluation
- k) Propose NAP implementation strategies and
- l) Prepare NAP reporting, monitoring, evaluation and review

4. Expected output/deliverables

Main deliverables will include:

- a) NAP Team in place;
- b) Terms of Reference;
- c) Inception report;
- d) Technical Assessment reports;
- e) Stakeholders consultation reports;

- f) First NAP draft document;
- g) Stakeholders workshop Reports (from zonal and national workshop);
- h) Comments and feedback from the LEG based on the draft NAP
- i) Second draft of NAP document;
- j) Final draft document;
- k) Final NAP document;
- l) NAP implementation strategy; and
- m) Reporting, monitoring, evaluation plan and review

5. Road map for preparation National Adaptation Plan

Formulation of the NAP is expected to be comprehensive and participatory to ensure ownership by key stakeholders. The NAP team has developed a road map to ensure successful completion of the NAP.

In conclusion we are pleased to have shared this NAP development process for Tanzania. We propose that this and progress reports of other countries be posted on the UNFCCC website in order to promote sharing of experiences.

**WHO SUBMISSION ON GUIDELINES FOR THE FORMULATION OF NATIONAL ADAPTATION PLANS
12 February 2013**

The World Health Organization welcomes the opportunity to provide the UNFCCC with information on the experiences with the application of the guidelines for the national adaptation plan process for least developed countries.

Adaptation of the LEG guidance to the health sector needs

Recalling WHO's submission on national adaptation plans¹, from 13 February 2012, WHO takes this opportunity to update on latest developments on support to countries in the implementation of the health national adaptation plan process (HNAP) within the overall framework of the national adaptation plan (NAP).

As part of its programmatic and financial support to national adaptation planning, WHO reviewed the LEG technical guidelines for the NAP process², and adapted them to the needs of the health adaptation process at national level.

A first draft of the above mentioned guidance was field tested in the first inter country workshop for the preparation of national plans of action for public health adaptation to climate change in Southern and Eastern Africa, which was held in Windhoek, Namibia, from 17 to 19 December 2012. Representatives from Ministries of Health and Ministries of Environment from 10 countries attended the workshop (Namibia, Lesotho, South Africa, Zimbabwe, Uganda, Botswana, Kenya, Zambia, Malawi, and Swaziland). Participating countries provided valuable inputs to further elaborate the guidance and, as a key outcome of the meeting, they came up with draft health national adaptation plans. Delegates agreed that they will organize meetings at their respective countries with all relevant stakeholders, in order to raise awareness on the links between climate change and human health and also to agree on actions to be taken by governments to strengthen resilience of communities with regards to climate change. WHO expressed its continued commitment to provide technical assistance to participating countries so that they can finalize their plans and initiate implementation in the shortest possible period of time.

It is expected that similar inter country workshops will be conducted in all African countries and Least Developed Countries during the 2013, 2014 period.

¹ WHO submission on National Adaptation Plans
<http://unfccc.int/home/items/6078.php?q=WHO+submission&cx=009772925632828311246%3Agjvsnghto1u&ie=UTF-8&sa=>

² Least Developed Countries. National Adaptation Plans. Technical guidelines. LDC Expert Group, December 2012
http://unfccc.int/adaptation/cancun_adaptation_framework/national_adaptation_plans/items/6057.php

WHO draft guidance to support the implementation of the Health National Adaptation Process (HNAP) is attached for reference. The annex includes a proposed template to support countries in the identification of available resources and identified gaps to ensure public health adaptation to climate change. This annex constitutes the adaptation of the WHO overall guidance to the African process, specifically to the Plan of Action for Public Health Adaptation to Climate Change to minimize the adverse public health effects of climate change in Africa, which was developed by WHO and UNEP in response to the UNFCCC process, and to specific calls from the Ministers, the African Union Commission and the African Development Bank, to provide technical assistance to countries for implementation, and to facilitate access by African countries to existing climate funds, to protect health from climate change. The plan was endorsed by the Ministers of health, and Ministers of environment of Africa³. Annex II includes a table summarizing available resources to support countries throughout the different steps of the adaptation planning process.

Ongoing support to national health adaptation planning:

In addition to the above mentioned guidance, WHO keeps on supporting the national adaptation planning through the following activities:

- 1) Awareness raising and guidance to support greater health sector engagement in climate-change adaptation programming at national, regional and global level.
- 2) Technical and policy support for vulnerability and adaptation assessment based on newly-revised guidance produced by WHO and the Pan-American Health Organization, following consultation with health and environment practitioners.
- 3) Integration of adaptation measures within a comprehensive approach to strengthening health systems to protect populations from the impacts of climate change.
- 4) Sharing of lessons learned and technical resources from the range of WHO pilot projects on health adaptation to climate change, through the Nairobi Work Programme and other UNFCCC mechanisms, as appropriate.
- 5) Technical and policy support for new projects and programmes on health adaptation to climate change.
- 6) Technical support in developing national strategies and action plans

Steps forward

WHO would like invite all the major stakeholders (LDCs, donors, LEG and UNFCCC representatives) to share views and ideas on the best way to implement/operationalize the WHO proposed HNAP within the framework of the national adaptation plan process.

³ Resolution AFR/RC61/R2 of the WHO Regional Committee for Africa, and Decision SS4/1 of the African Ministerial Conference on Environment, both adopted in September 2011
http://www.afro.who.int/index.php?option=com_docman&task=doc_download&gid=6661

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**WHO Guidance to support the implementation of the
Health National Adaptation Process in Africa**

12 December 2012

Outline of the guidance:

- I. Overview of the NAP process and purpose of the guidance
- II. Health within the NAP process: the Health National Adaptation Process (HNAP)
- III. Principles of the health adaptation process
- IV. Elements and steps of the health adaptation process
 - A. Laying the groundwork and addressing gaps in adaptation capacity
 - 1.1. Initiating and launching the HNAP process: institutional arrangements
 - 2.1. Stocktaking: assessment of available information on CCH and identification of gaps
 - 3.1. Identification of links between national development and health needs and strategies and health adaptation to climate change
 - B. Preparatory elements
 - 1.1. Health vulnerability and adaptation assessment, including short-, medium- and long-term health adaptation needs
 - 2.1. Development of National Strategy on Health Adaptation to climate change and Health National Adaptation Plan (HNAP)
 - C. Implementation strategies
 - 1.1. Implementation of concrete health adaptation measures: policies, projects and programmes
 - D. Reporting, monitoring and review
 - 1.1. Monitoring and evaluation of the implementation of the HNAP
 - 2.1. Periodic reporting on progress made and effectiveness of the health adaptation process

Annexes

Annex I: Template for the development of a health adaptation plan

Annex II: Available tools and resources to support countries during the implementation of the health adaptation process (HNAP)

List of acronyms

CC – Climate change

CCC – Country Coordination Committees

CCH – Climate change and health

COP – Conference of the Parties

GCF - Green Climate Fund

GFCS – Global Framework for Climate Services

HNAP – Health component of the National Adaptation Plan process

LEG – Least Developed Countries Expert Group

LDC – Least Developed Countries

LDCF – Least Developed Countries Fund

M&E – Monitoring and evaluation

NAP – National Adaptation Plans

NAPA – National Adaptation Programme of Action

UNDP – United Nations Development Programme

UNEP – United Nations Environment Programme

UNFCCC – United Framework Convention on Climate Change

VBD – vector-borne diseases

Overview of the NAP process and purpose of the guidance

Sustainable development became a formal global process in 1992, when the three Rio Conventions (on biodiversity, climate change and desertification) were adopted in the Earth Summit.

The 1992 United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, adopted in 1997, refers to the legal framework that maintains the international climate change process and agenda. Both legal instruments are serviced by the secretariat, also known as the Climate Change Secretariat or UNFCCC secretariat¹. The Secretariat is accountable to the Conference of the Parties (COP) to the Convention, which meet annually to negotiate and further discuss the climate change international agenda and related commitments from countries.

Created under the global UNFCCC climate change agenda, the NAP process builds on the previous National Adaptation Programmes of Action process (NAPA), which was designed to support Least Developed Countries (LDCs) to identify priority actions to respond to their urgent and immediate adaptation needs as part of the LDC work programme, adopted by COP7, held in Marrakesh in 2001. Also in COP7, it was decided the establishment of a least developed country expert group (LEG), which was mandated to support LDC with their NAPA process. Since the NAPs process is intended to provide support for medium and long-term adaptation needs, the LEG is also supporting LDCs to properly plan their adaptation needs, by inter alia, developing NAP technical guidelines².

Having the UNFCCC in general and the NAP process in particular as a framework, the present guidance aims to ensure that the health sector follows a systematic process to:

1. Engage in the overall NAP process at national level
2. Identify strategic goals for building health resilience to climate change in the case they haven't do it so far (e.g. through a National Health Adaptation Strategy)
3. Develop a plan with prioritized activities to achieve these goals, within a specific period of time and given available resources.

This guidance has been developed adapting the LEG technical guidelines for the NAP process to the needs of the health adaptation process. Although the guidance relates to the process to be followed by the health sector in order to ensure the above mentioned goals, a template on how to plan the health adaptation work at country level is also proposed, as a key output of such health adaptation process. The template is included in annex I and builds on the "Adaptation to climate change in Africa: Plan of Action for the Health Sector 2012-2016"³.

¹ UNFCCC. The Secretariat http://unfccc.int/secretariat/history_of_the_secretariat/items/1218.php

² NAP technical guidelines http://unfccc.int/cooperation_support/least_developed_countries_portal/items/7279.php

³ Adaptation to climate change in Africa: plan of action for the health sector 2012-2016.

I. Health within the NAP process: the HNAP

As introduced in the overview, this guidance relates to the process that has to be put in place in order to ensure that health sector's response to the adverse health impacts of climate change is designed and implemented in a systematic and coordinated way with the overall NAP process.

An assessment of health considerations within NAPAs for climate change in least developed countries and small island states was conducted by WHO in 2010. The assessment concluded that 39 out of 41 (95%) NAPAs reviewed included health as a sector impacted negatively by climate change. 30/41 (73%) of these plans included health interventions within adaptation needs and proposed actions, and only 50 out of 459 (11%) selected priority projects focused on health⁴. Although health was recognized by countries as a priority sector for adaptation to climate change, approximately 4% of the Least Developed Countries Fund (LDCF) funds allocated to supporting the NAPA process targeted health adaptation⁵.

Potential explanations for the lack of support to the health sector include that the health community was largely absent from the NAPA process; the fact that the health sector was not submitting proposals; and the limited technical guidance provided to ensure that proposals on health adaptation were developed fulfilling minimum technical requirements.

Now that the NAP process is in place, and considering the fact that it builds in the previous NAPA process, from which the health sector was absent, it is critical to ensure that health is properly represented. Although in some cases the health sector is more advanced in analyzing and planning adaptation than the overall NAP process at national level, it is key to ensure that the health component feeds into the overall process at country level. This will ensure proper access to adaptation funds made available at national level from different adaptation funds such as the LDCF and the green climate fund (GCF). Furthermore, coordination will also ensure that the health sector maximizes synergies and promote health co-benefits across health determining sectors, such as energy, agriculture, housing and water.

For the purpose of this document, the HNAP is considered as the **health adaptation process** at national level, which includes as an output the development of a detailed **health adaptation plan**, as an organized programme of actions designed to achieve the national health adaptation goals, within a specific period of time and given available resources.

II. Principles of the national health adaptation process

The HNAP process follows the same principles stated in the LEG guidance for the overall national adaptation plan process. These include:

⁴ Manga, L., Bagayoko, M., Meredith, T. and Neira, M., 2010. Overview of health considerations within National Adaptation Programmes of Action for climate change in least developed countries and small island states.

http://www.who.int/phe/Health_in_NAPAs_final.pdf

⁵ The Global Environment Facility (GEF). Least Developed Countries Fund. Financing the preparation and implementation of NAPAs in response to urgent and immediate adaptation needs. <http://www.thegef.org/gef/LDCF>

- The HNAP is a country driven process and is to be owned by the countries.
- Ensuring that health adaptation planning is based on evidence. Any adaptation plan will also aim at strengthening the development and availability of evidence, and build up the data and knowledge gaps, so to inform relevant policies.
- Building on/ taking into account existing national efforts on health adaptation to climate change, including assessments, policies and programmes developed or implemented from local to national levels.
- Integrating health adaptation to climate change into national health planning processes, strategies and existing monitoring systems.
- Providing for a flexible and context specific approach to health adaptation to climate change. National circumstances and available information and experience on health and climate change will determine the scope, institutional arrangements and resources required to properly implement the health component of the NAP.
- Maximizing synergies across sectors, mainly across the health determining ones. This relates also to monitoring systems and the need to develop health related indicators within their adaptation monitoring systems.
- Ensuring that the health adaptation plan feeds into and coordinates with the overall national adaptation process.
- Piloting approaches that promote an iterative process for health adaptation to climate change which produces time-bound plans.
- Promotion of inter country collaboration and harmonizing adaptation approaches at sub-regional level.

III. Elements and steps of the health adaptation process

Four elements and a number of proposed steps under each of them are proposed for the health adaptation process. These follow the structure of the technical guidelines developed by the LDC Expert Group⁶, prepared to support least developed and developing countries to plan national adaptation.

Elements refer to laying the groundwork, preparatory elements, implementation strategies and reporting, monitoring and review, which could be broadly related to the phases of the project cycle (identification, formulation, implementation and monitoring and evaluation). A brief guidance for each of the proposed steps is included below.

A. Lay the Groundwork & Address Gaps in Adaptation Capacity

Step 1. Initiating and launching the HNAP process: Identification of institutional arrangements for coordination and leadership on health adaptation within the overall NAP process.

This first step is key to ensure coordination with the overall adaptation to climate change process at national level while promoting sustainability of health adaptation efforts. Supported by the LEG, the UNFCCC and other relevant partners (e.g. UNDP, UNEP, WHO, development agencies and

⁶ NAP technical guidelines http://unfccc.int/cooperation_support/least_developed_countries_portal/items/7279.php

NGOs) countries will start planning their mid- and long-term priorities to build resilience to climate change across all climate sensitive sectors.

Although the health sector specifically has already started to assess and plan its adaptation strategies in most contexts, the disconnect with the overall national process is to be avoided.

Institutional arrangements for health adaptation to climate change have been put in place in most of the countries. These are determined by the regional and national processes and plans of actions and have to be properly strengthened to facilitate the sound implementation and sustainability of the health adaptation process. If we consider Africa as an example, the regional process has been jointly determined by Ministers of Environment and Health and is reflected in the 2008 Libreville Declaration on Health and Environment⁷, the 2010 African Ministers of Health and Environment Joint Statement on Climate Change and Health⁸ and the recent “Adaptation to climate change in Africa: Plan of Action for the Health Sector 2012-2016”⁹. These key inter-ministerial steps facilitated the creation of relevant institutional arrangements, the Country Coordination Committees (CCC) as the mechanism with the mandate to promote health adaptation to climate change.

When strengthening institutional arrangement there are three components to be addressed, which correspond to the functional needs of climate change adaptation:

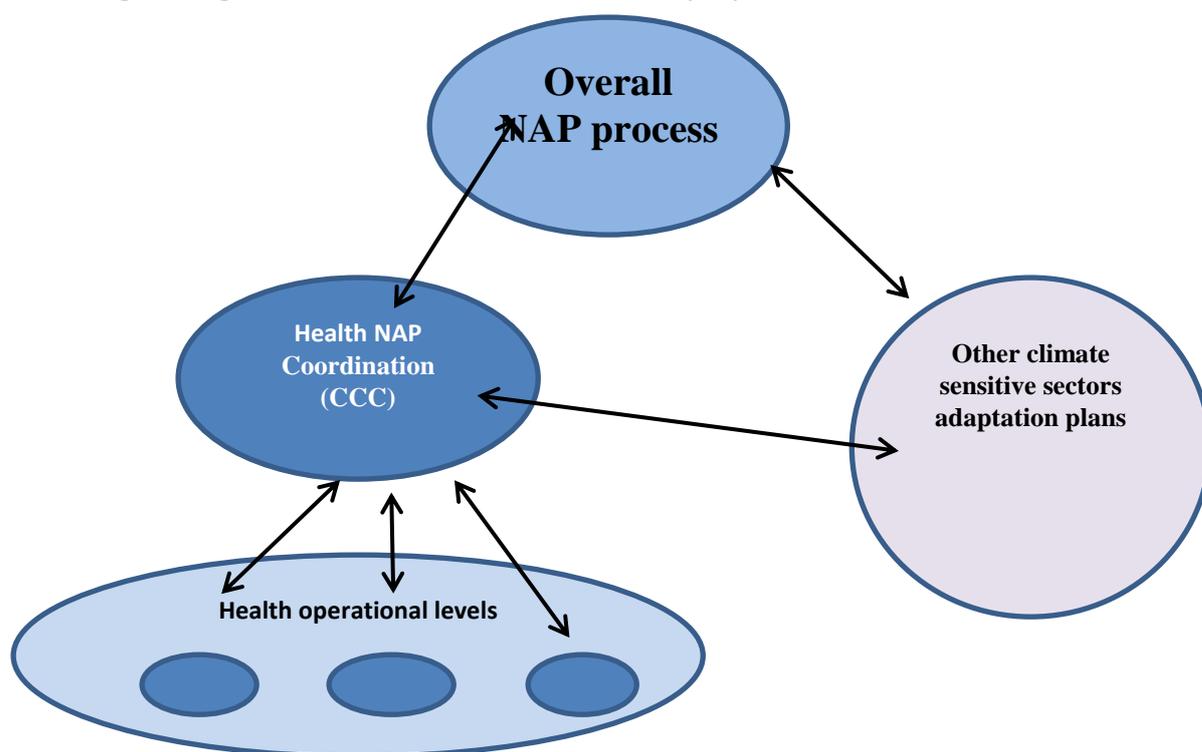
- **Mainstreaming** climate change adaptation into the national health planning process. The HNAP is envisaged as a process to be embedded within national health processes and programmes already in place rather than as an independent process. Climate variability and change will mainly impact t on the diseases and other public health conditions which are already affecting the country. In most cases, national public health programmes are already established to reduce the burden of such diseases and public health conditions (e.g. national malaria control programmes, maternal and child health programmes, nutrition, water and sanitation, etc...). Adaptation intervention and activities that would have been identified within the HNAP will subsequently have to be uptaken and implemented through the above various programmes. Every country will have to define its own specific process, through which such mainstreaming of climate change adaptation strategies and interventions within specific public health programmes will be undertaken. Therefore strategies and actions to build resilience through those public health programmes will have to be implemented by the respective operational levels.
- **Implementation** of health adaptation responses. Although responses may be designed by a concrete team of climate change and health experts, the responsibility for implementation will be shared throughout the different public health operational plans, and by the various teams at the local, regional and national levels.

⁷ <http://www.afro.who.int/en/clusters-a-programmes/hpr/protection-of-the-human-environment/highlights/second-inter-ministerial-conference-on-health-and-environment-in-africa.html>

⁸ <http://www.afro.who.int/en/clusters-a-programmes/hpr/protection-of-the-human-environment/highlights/second-inter-ministerial-conference-on-health-and-environment-in-africa.html>

⁹ Adaptation to climate change in Africa: plan of action for the health sector 2012-2016.

- **Coordination** of the overall health adaptation process. Since there are different stakeholders of the health adaptation plan, there will have to be a coordination entity to ensure that all adaptation work related to public health is done in accordance to the HNAP. Countries will have to define the nature of this entity within the Ministry of Health (e.g. establishment of a specific unit for this purpose, or designation of an existing unit). This coordination function will be defined and delivered on the basis of each national context. However, Ministers of Health and Ministers of Environment have decided jointly to establish country coordination committees to support implementation of the Framework for Public health Adaptation to Climate Change in Africa. Every country will have to consider establishment or strengthening of such committees for the above purpose.



It is the responsibility of the health sector to effectively communicate and reflect its own institutional arrangements within the overall arrangements made to plan and implement adaptation to climate change at national level. Since it is expected that most of the LDCs will have access to adaptation funds through the NAP process, having health represented in the overall arrangements will facilitate the access to those funds by the health sector.

In order to raise the profile of health adaptation within the overall NAP process, it is recommended to conduct different awareness raising activities (e.g. briefings or presentations) on the health impacts of climate change targeting the representatives of the national institutional

mechanism in charge of coordinating the overall NAP process. These include UNFCCC focal points, Ministries of Planning, Finance, Environment and health determining sectors.

Step 2. Stock-taking: Assessment and desk review of available information on health impacts, vulnerability and health adaptation measures undertaken to address climate variability and change, and identification of capacity gaps, at the national and regional levels to undertaking the HNAP process.

Resources to be used in order to undertake this desk review include National Communications (NCs), NAPAs, SANAs on the Libreville Declaration for African countries, vulnerability and adaptation assessments, pilot projects on health adaptation to climate change and any additional relevant information developed by the health or other sectors. Information gathered with the desk review will be made available to relevant stakeholders through different methods. These may include making it available through the database that is expected to be created within the framework of the overall NAP process at country level.

The information gathered from the desk review will serve as a baseline to identify gaps and projected needs for assessment and capacity development, and therefore will facilitate the scope of further assessment that may be required. When designing capacity development areas of need, different areas of expertise within human resources should be considered (e.g. climate data analysis, epidemiology, surveillance and response).

This step will be concluded with a SWOT analysis that will guide the development of the national adaptation plan. Strengths, weaknesses, opportunities and barriers to health adaptation to climate change will have to be properly considered prior to the designing of the plan.

Step 3. Identification of links between climate change adaptation planning process and national health related development goals

Health system strengthening (HSS) is a priority development objective for most countries, including all African ones. HSS may therefore be the main entry point for planning for health adaptation interventions. Health systems building blocks may be used as a framework to link climate change adaptation planning to national development goals (i.e. service delivery; health workforce; health information systems; access to essential medicines (includes infrastructure); financing; and leadership/ governance¹⁰).

Coordination with health determining sectors is also critical as a way to identify potential synergies and promote health co-benefits from their adaptation responses. An option to ensure this coordination is the inclusion of health indicators within the monitoring systems of those sectors. Further details on indicators will be made available under the WHO conceptual framework for indicators to support health-oriented climate change adaptation.

Since coordination and engagement are key to ensure success and sustainability of health adaptation options, relevant activities have to be properly planned and budgeted.

¹⁰ WHO. Monitoring the building blocks of health systems. A handbook of indicators and their measurement strategies. WHO, Geneva, 2010.

B. HNAP Preparatory elements

Step 4. Health vulnerability and adaptation assessment, including short-, medium- and long-term health adaptation needs

Building on available information and knowledge gaps as identified under the stock-taking phase, this step refers to the comprehensive assessment of vulnerabilities, impacts and adaptation options. It may not always be possible to conduct a full vulnerability assessment prior to the development of the national adaptation plan. In this case, vulnerability assessment will be one of the main activities to be included in the plan.

Most of the countries have conducted some form of vulnerability and adaptation assessment but just some of them were comprehensive. Differences are also evident across regions. For example the Pacific island countries were supported by WHO to conduct V&As and plans while most of the African countries have started to conduct their SANAs, which represent an initial assessment on vulnerability to climate change. In some cases countries built their national strategies on the data gathered through the V&A assessment, while others didn't have the capacity and resources required to conduct a comprehensive assessment and therefore built their strategies on initial evidence.

The scope of the assessment will be determined by national circumstances and should include relevant stakeholders. Given the technical nature of this assessment, involved stakeholders may differ from the ones involved in the overall NAP process. These could include national research institutions, public health organizations and universities and NGOs.

Some of the categories included in the assessment may include the following health risks: vector-borne diseases (VBD); Nutrition and food-borne diseases; Water-borne diseases; Air-borne and respiratory diseases; Occupational health; Extreme weather events (e.g. extreme temperatures, droughts, floods). Cross-cutting issues to be considered include: environmental determinants of health (e.g. different geographical settings (e.g. urban, rural)); gender (and equity) and other social determinants of health; and health systems resilience. This category should be analyzed considering the six pillars of health systems mentioned above.

While the vulnerability assessment relates to the assessment of current burden of climate-sensitive diseases and therefore to the establishment of baseline conditions, the impact assessment refers to the projection of future health risks and impacts under climate variability and change scenarios. Lastly, the adaptation assessment aims to identifying and prioritizing adaptation policies and programmes to address current and projected health risks.

Countries should define which process to follow in order to conduct this assessment. Different available tools are included in Annex II. In the African region, it is important to highlight the Informal consultation on public health vulnerabilities of African countries to Climate Change, which was held in Addis Ababa in July 2012. In that meeting a set of steps for the process of analyzing historical trends and variations of climate factors, improvements in health systems and relevant epidemiological indices was proposed. The summary report of that meeting is also included in Annex II.

Data and information gathered with the vulnerability and impact assessments will inform the design of appropriate responses under each of the above mentioned categories. Categories are illustrative rather than exhaustive. Countries will decide if all categories of health risks are relevant in their specific contexts and will reflect their priority areas of intervention within the plan (in terms of allocation of resources and time frame).

Assessment is an iterative process rather than a stand-alone activity and has to be properly reflected in the health adaptation plan. This iterative process will allow making adjustments needed to effectively build resilience of the health systems.

Step 5. Development of National Strategy on Health Adaptation to climate change and Health National Adaptation Plans (HNAP)

Under this step the need to develop a National strategy has been merged with the development of the national adaptation plan. Countries will decide based on their own context and needs, the process they will follow to come up with the proposed strategy and plan to minimize the adverse health impacts of climate change by building resilience of the health system. This guidance has been designed assuming that countries vary in the amount of work undertaken on climate change and health.

African governments have approved a framework for public health adaptation to climate change. The framework is the basis for formulating the strategy on health adaptation and national plan. Using the country institutional mechanism for climate change, the national stakeholder will move on to consider the framework for public health adaptation and adapt it to the national context. Similarly African countries have approved a health sector plan of action for health adaptation to climate change, which will also be adapted to the national context by relevant stakeholders.

Although Annex I includes a template for HNAP, each country will decide which format to follow to plan their health adaptation work.

C. Implementation strategies

Step 6. Implementation of policies, strategies, and plans .

Once the plan has been designed, in- country implementation mechanisms have to be designed. These may include:

1. Dissemination of the plan to key stakeholders.
2. Development of financing options and inclusion of the health NAP in the national financing instruments.
3. Definition of steps to ensure that actions included in the health NAP will be uptaken in specific public health operational plans. This requires the involvement of relevant operational levels.
4. Definition of feedback mechanisms from operational to national levels and back.

The above guidance will be further developed in consultation with countries.

D. Reporting Monitoring and Review

Step 7. Monitoring and evaluation of the implementation of HNAP

The HNAP process aims to strengthening national health information systems while aligning global monitoring and reporting systems on health impacts of climate variability and change across countries.

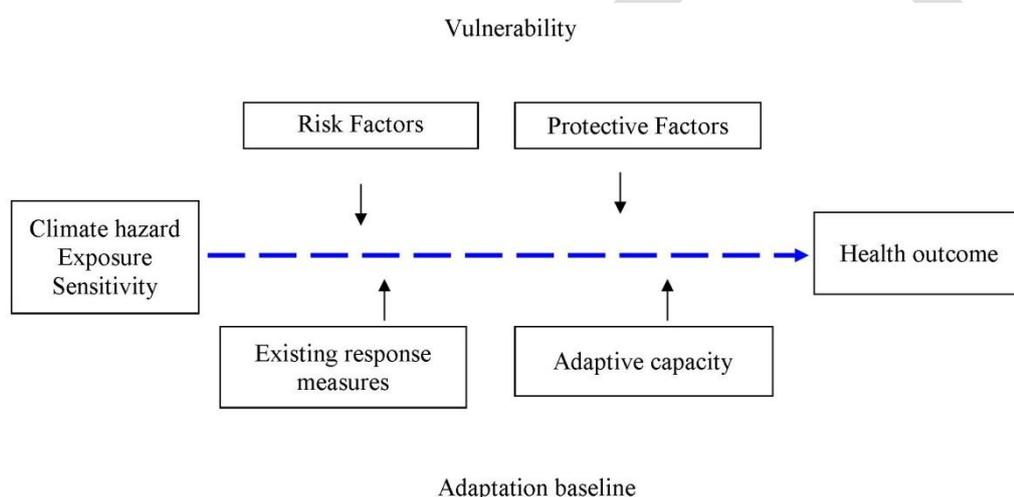
When designing the monitoring and evaluation system for health adaption to climate variability and change at national level, it is key to ensure that both the implementation of the HNAP process and related programmes and projects, and the outcomes and impacts of such interventions are considered. These considerations will determine what is to be monitored and how, implying that a set of climate sensitive disease related -and programme-specific indicators will be designed. Data sources will also be included within the M&E framework. Although quantitative measures and indicators are prioritized for health impacts, the use of qualitative methodologies is also strongly recommended to capture social dimensions such as gender, and also perceptions related to vulnerability and adaptive capacity.

The monitoring related to the implementation of the HNAP process and related responses (programmes, projects or policies), will be structured around the components included in the proposed template for health adaptation plan and in the programme document respectively, and will allow the introduction of corrective measures if needed. Regular progress on the implementation of the HNAP process should use plan or programme output and outcome indicators and it's recommended to clearly define within the M&E framework concrete milestones for monitoring and evaluation of the HNAP and related programmes. Annual, mid-term and final review of the implementation of the NAP and programmes should be considered as least.

When designing the relevant M&E framework at national level, it is key to properly design the measures and indicators that will allow the measurement of health vulnerability and impacts of climate change. Monitoring health outcomes provides the opportunity to assess whether the coping and adaptation measures instated are effective in terms of reducing the climate-sensitive

health burden. Monitoring climate-sensitive diseases provides health outcome data essential to evaluating whether adaptation policies, programmes and measures are effective. Health outcome data should be at least age and sex-disaggregated in order to inform about which are the high-risk population subgroups and to facilitate the designing of tailored interventions. Other disaggregation may be appropriate depending on the contexts. Analysis of indicators profiles (including roles, methods, definitions and scale of application) will be included under WHO conceptual framework for indicators mentioned above.

To understand the health impacts posed by climate change, it is needed to analyze and consider the diverse pathways by which climate variability and change affect health and the different factors that will determine the vulnerability to those impacts. In order to properly monitor impacts and vulnerability, information on different factors and variables will have to be collected. Figure 1 represents the pathway by which climate change will be translated into adverse health impacts.



While mainly disease related indicators will be used to measure the impact of the HNAP and related programmes, a wide range of information and data will have to be collected to allow the creation of a sound baseline of existing conditions. Baselines will allow for the future monitoring of change and will inform the designing of adaptations. Essential baselines for monitoring the health impacts of climate change include those that will determine different degrees of vulnerability and may be related to health (e.g. priority climate-sensitive diseases), environment (e.g. climatic variables), social (e.g. poverty and demographics), economic (e.g. occupation) and current level of interventions and health systems capacity. Available detailed guidance on how to assess vulnerability in general, and for specific climate-sensitive diseases is included in Annex II.

Following the proposed structure to analyze health vulnerability and impacts, a set of examples of indicators is proposed below. Most of them relate to outcome, while mortality and morbidity indicators for those diseases will reflect the impact of the implementation of the HNAP or related programmes.

Vector-borne disease

-Use of seasonal climate forecasts (MEWS) to predict malaria epidemics.

Food safety and food-borne disease

-Existence of early warning of climate services on reduced rainfall and emerging food safety crisis situations

Water-borne disease and access to safe drinking water

-Use of improved drinking water sources (climate resilient) and use of improved sanitation facilities

-Existence of comprehensive information system for adequate planning and targeted resource use (e.g. Global Information Management System on Health and Environment GIMS)¹¹.

Air-borne and respiratory disease

-% of households using solid fuels.

-Respiratory/Allergic disease and mortality related to increased air pollution and pollens.

Occupational health risks

-% of heat alerts and/or EWS to minimize heat vulnerability in working environments.

Extreme weather events (e.g. extreme temperatures, droughts, floods)

-Percentage of districts/provinces with heat-health action plans implemented.

- Existence of flood or drought warning systems and response plans

-% of municipal heat island mitigation plans

-Existence of climate sensitive emergency preparedness measures/plans

Cross-cutting issues to be considered:

Environmental determinants of health (e.g. different geographical settings (e.g. urban, rural) and housing)

Gender, equity and other social determinants of health

Resilience of health systems (e.g. availability and accessibility to health services, climate resilient and health promoting strategies in place in health care facilities, new climate-resilient hospitals built, or built in areas that are not prone to flooding by using climate information/services)¹².

In addition to monitoring, ex-post evaluation of the implementation of the HNAP and related programmes is highly recommended. This evaluation should provide information on five main criteria, namely relevance, effectiveness, efficiency, sustainability and impact of the HNAP or proposed adaptation responses.

The HNAP process aims to ensuring that climate sensitive health related indicators are properly integrated within the national health information system. Furthermore, it should also facilitate

¹¹ Atlas of Health and Climate. WHO-WMO, Geneva, 2012.

¹² Atlas of Health and Climate. WHO-WMO, Geneva, 2012.

and promote the inclusion of health related indicators within the climate change adaptation monitoring systems of health determining sectors.

Step 8. Periodic reporting on progress made and effectiveness of the health adaptation process

To effectively integrate the health adaptation process within the overall NAP process, it is critical to periodically communicate and report to different stakeholders on the progress made on implementing the HNAP and related programmes. Stakeholders include representatives of the management unit of the overall NAP at national level, the LEG and UNFCCC.

It is expected that the NAP process will clearly define the reporting requirements as well as the timeframe to do so. Reporting requirements established under the relevant climate change processes should be aligned with those in place for health data generation, compilation, analysis, synthesis, communication and use for decision making¹³.

In addition to reporting to the overall national adaptation process, it is recommended to also report on progress made on health adaptation relevant reporting processes put in place at global level under the UNFCCC mechanisms, such as through the National Communications (NCs).

As briefly introduced in the previous section, the HNAP process aims to strengthening global, regional and national health information and reporting systems. Basic standards for reporting on health adaptation at national level should be compatible among regions and countries so to allow a global monitoring.

¹³ Monitoring, evaluation and review of national health strategies. WHO and IHP, Geneva, 2011.

Annex I: Available tools and resources to support countries during the implementation of the health adaptation process (HNAP)

The following table summarizes the main information to be included in the guideline. A brief description and guidance will be provided for each of the steps and information on available tools and resources will be provided. The guidance will also facilitate the identification of gaps on support tools.

Stage (decision 5/CP.17)	Steps	Available tools and resources
A. Lay the Groundwork & Address Gaps in Adaptation Capacity	1. Initiating and launching the HNAP process: Identification of institutional arrangements for overall coordination and leadership on health adaptation within the overall NAP process.	<ul style="list-style-type: none"> • WHO/ EURO stakeholder engagement tool • Examples from countries with different institutional arrangements: • Steering Committee on Climate Change and Health - e.g. GEF pilot projects and Macedonia • Designation of National Focal Points on CCH at Ministry of Health – e.g. African Countries under the Framework of the Libreville Declaration and the Country Coordination Committees (CCCs)
	2. Stock-taking: Assessment of available information on health impacts, vulnerability and health adaptation measures taken to address climate variability and change, and identification of gaps and needs, at the national and regional levels	<ul style="list-style-type: none"> • Available examples of V&A (e.g. Bhutan & Malta) • Available examples of National Strategies and Plans of Action on CCH • Overview of health considerations within National Adaptation Programmes of Action for climate change in least developed countries and small island states
	3. Identification of links between national health related development goals and needs and climate vulnerabilities	
B. NAP Preparatory elements	4. Health vulnerability and adaptation assessment <ul style="list-style-type: none"> • Frame and scope the assessment (including stakeholder & communication plan) • Vulnerability assessment: Assess current burden of climate-sensitive diseases and establish baseline conditions • Impact assessment: project future health risks and impacts under climate variability and change • Adaptation assessment: identify and prioritize policies and programmes to address current and projected health risks • Establishment of iterative process for managing and monitoring the health risks of climate change 	<ul style="list-style-type: none"> • Health Vulnerability and adaptation assessment guidance • Process to be used for historical analysis of trends and variations of climate factors, improvements in health systems and relevant epidemiological indices. Process to be used for historical analysis of trends and variations of climate factors, improvements in health systems and relevant epidemiological indices. Summary report Informal consultation on public health vulnerabilities of African countries to climate change. Addis Ababa, July 2012. • Vulnerability Risk assessment mapping (VRAM) • Methods of assessing human health vulnerability and public health adaptation to climate change, 2003. • Examples of V&A (e.g. Bhutan & Malta) • Health damage and adaptation costs tool • Climate change and human health: impact and adaptation. 2000
	5. Development of National Strategy on Health Adaptation to climate change and/ or Health National Adaptation Plan (HNAP).	<ul style="list-style-type: none"> • Template for the development of a National Adaptation Plan in Africa http://www.who.int/globalchange/resources/en/ • Country experiences and examples of National Strategies on Health

		<p>and CC: e.g. Jordan, Morocco, Macedonia</p> <ul style="list-style-type: none"> • WHO Resolution and work plan on CCH • WHO Regional Office for Africa Framework for Public Health Adaptation to climate change in the African Region • Situation Analysis and Needs Assessment (SANA) on the Libreville Declaration on Health and Environment • PAHO/ WHO Regional office for the Americas Strategy and Plan of Action on Climate Change • WHO Regional Office for Europe Resolution on Environment and Health and European Regional Framework for action on protecting health in an environment challenged by climate change • Regional Committee for South-East Asia Resolution SEAR/RC62/R2 on Climate Change and Human Health • WHO Regional Office for South-East Asia Regional Strategy for Protecting Health from Climate Change <ul style="list-style-type: none"> • Regional Committee for the Eastern Mediterranean Resolution on climate change and health <ul style="list-style-type: none"> • Available examples of National Plan of Action on CCH (e.g. Macedonia and Jordan)
<p>C. Implementation strategies</p> <p><integrated at the national level></p>		<ul style="list-style-type: none"> • Guidance on Early Warning and Response Systems (under development) • Using climate to predict infectious disease epidemics • Climate change and human health • Heat waves, floods and the health impacts of climate change: a prototype training workshop for city officials • Protecting health from climate change: connecting science, policy and people • Climate change: quantifying the health impact at national and local levels • Climate change and human health: risks and responses • Introduction and methods: assessing the environmental burden of disease at national and local levels • Gender, climate change and health • Climate and health guides for teachers & students • Climate change and human health: impact and adaptation. 2000 • Training course for public health professionals on protecting health from climate change

D. Reporting Monitoring and Review	7. Monitoring and evaluation of the implementation of HNAP <ul style="list-style-type: none"> • Set up/ strengthen monitoring system on health vulnerability and health system resilience to climate variability and change • Inclusion of health indicators within health determining sectors' national monitoring systems (e.g. water, food, air, energy) • Inclusion of indicators on climate vulnerability and health system resilience within national health monitoring systems • Monitoring the HNAP process • Review the HNAP process to assess progress, effectiveness and gaps • Iteratively updating the HNAP 	<ul style="list-style-type: none"> • Indicators framework for climate change and health (under development)
	8. Periodic reporting on progress made and effectiveness of the HNAP to: <ul style="list-style-type: none"> • National NAP process • the LEG and UNFCCC through relevant reporting processes such as National Communications (NCs) 	<ul style="list-style-type: none"> • UNFCCC Guidelines for preparation of national communications from non-Annex I Parties