



WMO OMM

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 Organisation météorologique mondiale
 Organización Meteorológica Mundial
 Всемирная метеорологическая организация
 المنظمة العالمية للأرصاد الجوية
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Notre réf.: 35373/CLW/CLPA/CCA/UNFCCC-COP23/2nd

12 octobre 2017

Annexe: 1 (disponible en anglais seulement)

Objet: Dernières nouvelles concernant la participation de l'OMM à la vingt-troisième session de la Conférence des Parties (COP 23) à la Convention-cadre des Nations Unies sur les changements climatiques (CCNUCC), à la treizième session de la Conférence des Parties agissant comme réunion des Parties au Protocole de Kyoto (CMP 13) et à la session de la Conférence des Parties agissant comme réunion des Parties à l'Accord de Paris (CMA 1.2) (Bonn, Allemagne, 6-17 novembre 2017)

Suite à donner: Les représentants des Services météorologiques et hydrologiques nationaux (SMHN) sont priés de prendre connaissance de la note d'information ci-jointe et de suggérer des mesures que l'OMM pourrait prendre pour favoriser encore plus la participation des SMHN à l'application de la CCNUCC

Madame, Monsieur,

À l'approche de la Conférence et des réunions connexes, j'ai le plaisir de vous communiquer de plus amples renseignements que vous pourriez trouver utiles dans l'éventualité de votre participation et de celle de votre pays à ces événements.

Comme je vous l'indiquais dans ma lettre circulaire du 14 septembre dernier, la Conférence des Nations Unies sur les changements climatiques aura lieu au siège du Secrétariat de la CCNUCC, à Bonn, du 6 au 17 novembre 2017. Organisée sous les auspices du Gouvernement des Fidji, cette conférence comprendra la vingt-troisième session de la Conférence des Parties (COP 23) à la Convention-cadre des Nations Unies sur les changements climatiques (CCNUCC), la treizième session de la Conférence des Parties agissant comme réunion des Parties au Protocole de Kyoto (CMP 13), les quarante-septième sessions de l'Organe subsidiaire de conseil scientifique et technologique (SBSTA 47) et de l'Organe subsidiaire de mise en œuvre (SBI 47), ainsi que la quatrième partie de la première session du Groupe de travail spécial de l'Accord de Paris (APA 1.4) et la deuxième partie de la première session de la Conférence des Parties agissant comme réunion des Parties à l'Accord de Paris (CMA 1.2). Le segment de haut niveau de la COP 23 et de la CMP 13 auront lieu du 15 au 17 novembre 2017.

Principal résultat de la COP 21 (Paris, décembre 2015), l'Accord de Paris dominera l'ordre du jour de la COP 23. La mise en application de cet accord repose en grande partie sur les contributions prévues déterminées au niveau national qui seront communiquées par les Parties. Elles constituent des instruments clés de l'action pour le climat dans le contexte de la CCNUCC et il est essentiel de disposer d'informations scientifiques sur le climat, notamment dans le domaine de l'adaptation. À cet égard, vous trouverez ci-joint une note d'information sur le rôle des SMHN dans l'exécution des plans nationaux d'adaptation. Elle sera disponible ultérieurement dans toutes les langues officielles de l'ONU à l'adresse <http://public.wmo.int>.

Aux: Représentants permanents (ou directeurs des Services météorologiques ou hydrométéorologiques) des Membres de l'OMM

cc: Conseillers en hydrologie auprès des représentants permanents

Au sein du système des Nations Unies, l'OMM copréside l'organisation de plusieurs manifestations parallèles:

- 1) **Science:** Importance de la science à l'appui des activités d'adaptation et d'atténuation prévues au titre de l'Accord de Paris;
- 2) **Prévention des catastrophes:** Mise en place et suivi de l'Accord de Paris en faisant fond sur le Cadre de Sendai;
- 3) **Eau:** Action pour le climat visant à une meilleure gestion des ressources en eau;
- 4) **Océan:** Un océan résilient pour les générations futures.

De plus, l'OMM participera également à l'espace d'exposition de la COP 23, qui mettra en valeur l'unité d'action des Nations Unies, où elle présentera le rôle joué par l'OMM et par les SMHN de ses Membres dans l'application de la CCNUCC. Bien d'autres manifestations sont aussi prévues. Les dates et le programme des manifestations intéressant l'OMM, ainsi que la documentation et les ressources correspondantes, seront publiés en temps voulu sur le site Web susmentionné.

À sa soixante-neuvième session, le Conseil exécutif a tenu compte des conclusions de la COP 22 et de la mise en application de l'Accord de Paris. Il convient de noter que les services climatologiques destinés au secteur de l'énergie, de l'eau, de la santé publique, des transports et de l'industrie, de l'agriculture et de l'occupation des sols contribuent à l'avènement d'une économie à faible émission de carbone et tenant compte du climat grâce au Cadre mondial pour les services climatologiques (CMSC). Lors de cette session, le Conseil exécutif a notamment invité ses Membres à:

- Agir au niveau national de sorte que les SMHN contribuent pleinement à l'inventaire des phénomènes météorologiques extrêmes, aux programmes d'adaptation, aux mesures d'atténuation et aux autres secteurs d'intervention relevant de leur compétence et prennent part à l'élaboration des contributions déterminées sur le plan national, des systèmes de surveillance des gaz à effet de serre et à d'autres systèmes d'observation;
- Intégrer des cadres institutionnels nationaux pour les services climatologiques qui serviront de mécanismes clés de coordination permettant de rassembler les intervenants nécessaires à la création, à la diffusion et à l'exploitation de services climatologiques adaptés propres à améliorer la prise de décision, ou, au besoin, à établir de tels cadres.

Je vous encourage à envisager de participer à la COP 23 en tant que membre de votre délégation nationale, afin de renforcer la contribution des SMHN à la mise en œuvre de la CCNUCC. Bien que notre Organisation ne soit pas en mesure de fournir une assistance financière pour votre participation à la COP 23, je vous saurais gré de nous faire des suggestions quant aux mesures que l'OMM pourrait prendre pour aider votre Service à appliquer la CCNUCC et l'Accord de Paris. Si vous-même ou certains de vos collaborateurs comptez assister à la COP 23, veuillez en informer Mme Nadia Oppliger (noppliger@wmo.int) au plus tard le **22 octobre 2017**. Enfin, si vous avez des questions, n'hésitez pas à contacter M. Amir Delju (adelju@wmo.int).

Veuillez agréer, Madame, Monsieur, l'expression de ma considération distinguée.



(E. Manaenkova)
pour le Secrétaire général



POLICY BRIEF

The Role of National Meteorological and Hydrological Services (NMHSs) in National Adaptation Plans (NAPs)

Executive Summary

National Adaptation Plans (NAPs) are key instruments for enhancing and scaling up climate action under the [United Nations Framework Convention on Climate Change](#) (UNFCCC). NAPs provide a vehicle for implementation of climate services which is formally recognized by UNFCCC Parties and backed by significant international financing. It is essential that NAPs benefit from scientific information on climate variability, trends and extremes and contain provisions that promote the climate services needed to achieve the best possible climate-related development outcomes.

This policy brief is intended to facilitate understanding concerning the role of National Meteorological and Hydrological Services (NMHSs) in the provision of climate services to design and implement NAPs. NMHSs are encouraged to liaise with NAP focal points within their governments and explore the elements and areas of competency to which they can actively contribute.

1. Introduction

The [Paris Agreement](#), adopted by the 21st session of the UNFCCC Conference of Parties (COP-21), calls for all countries to engage in the process of formulation and implementation of NAPs. The NAP process will harmonize national adaptation priorities with key policy planning processes such as Nationally Determined Contributions (NDCs), submitted by Parties under article 3 of Paris Agreement.

As of 14 August 2017, 159 out of the 197 Parties to the Convention have ratified the Paris Agreement, of which 152 have submitted their first NDCs to the UNFCCC. Of these submissions, 102 include an adaptation component, the majority being from developing countries. The NAP process is mentioned in 39 NDCs, of which 23 note that it has commenced and 16 state that it will start by 2020 (Figure 1). The establishment of synergies and systematic linkages between the adaptation components of NDCs and NAPs will facilitate the scale up of adaptation investments for the near and medium term in many vulnerable developing countries.

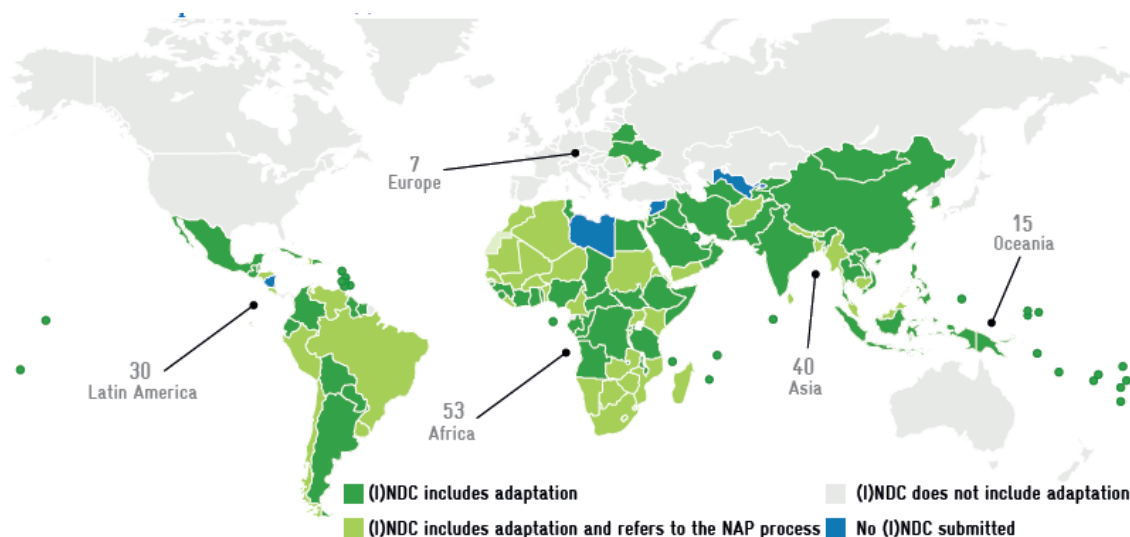


Figure 1 Countries which included an adaptation component and referred to the NAP process in their (I)NDC (Source: GIZ, 2017)

NAPs will also permit countries to align national adaptation results and performance measures to regional and global development objectives and frameworks, as defined by the [Agenda 2030](#). As vulnerability reduction is the core and common element of both adaptation and disaster risk management, a closer integration between NAPs and the [Sendai Framework for Disaster Risk Reduction](#) (March 2015), will also create synergies between reducing loss and damage and protecting sustainable human development.

The Paris Agreement emphasizes that adaptation should be based on, “Information and scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making” (Article 7, paragraph 7). This creates demand for climate services which provide science-based and user-specific information relating to past, present and potential future climate, addressing all climate-affected sectors. NDC adaptation priority areas and sectors include water, agriculture, health, ecosystems, infrastructure, forestry, energy, disaster risk reduction, food security, coastal protection, and fisheries. These priorities encompass all [Global Framework for Climate Services](#) (GFCS) priority areas and align with the [GFCS Implementation Plan](#), which provides extensive guidance for climate service implementation.

2. *What is a National Adaptation Plan?*

A NAP is an iterative process that aims to integrate considerations of climate change adaptation into policy-making, budgeting, implementation and monitoring processes at national, sectoral and sub-national levels. The objectives of NAP process (decision 5/CP.17 paragraph 1) are twofold:

1. To reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience; and
2. To facilitate the integration of climate change adaptation into new and existing policies, programs and activities within all relevant sectors and at different levels.

NAPs build on existing policy processes and coordination structures, and should be based on sound scientific evidence.

Initial guidelines for the formulation of NAPs were released in 2013 by the Least Developed Country Expert Group (LEG)¹ of the UNFCCC. The LEG [NAP Technical Guidelines](#) contain a list of indicative activities that can be undertaken in the development of NAPs, grouped under four headings.

1. Laying the groundwork and addressing gaps;
2. Preparatory elements;
3. Implementation strategies;
4. Reporting, monitoring and review.

Climate information is essential in all four of these areas (Figure 2).

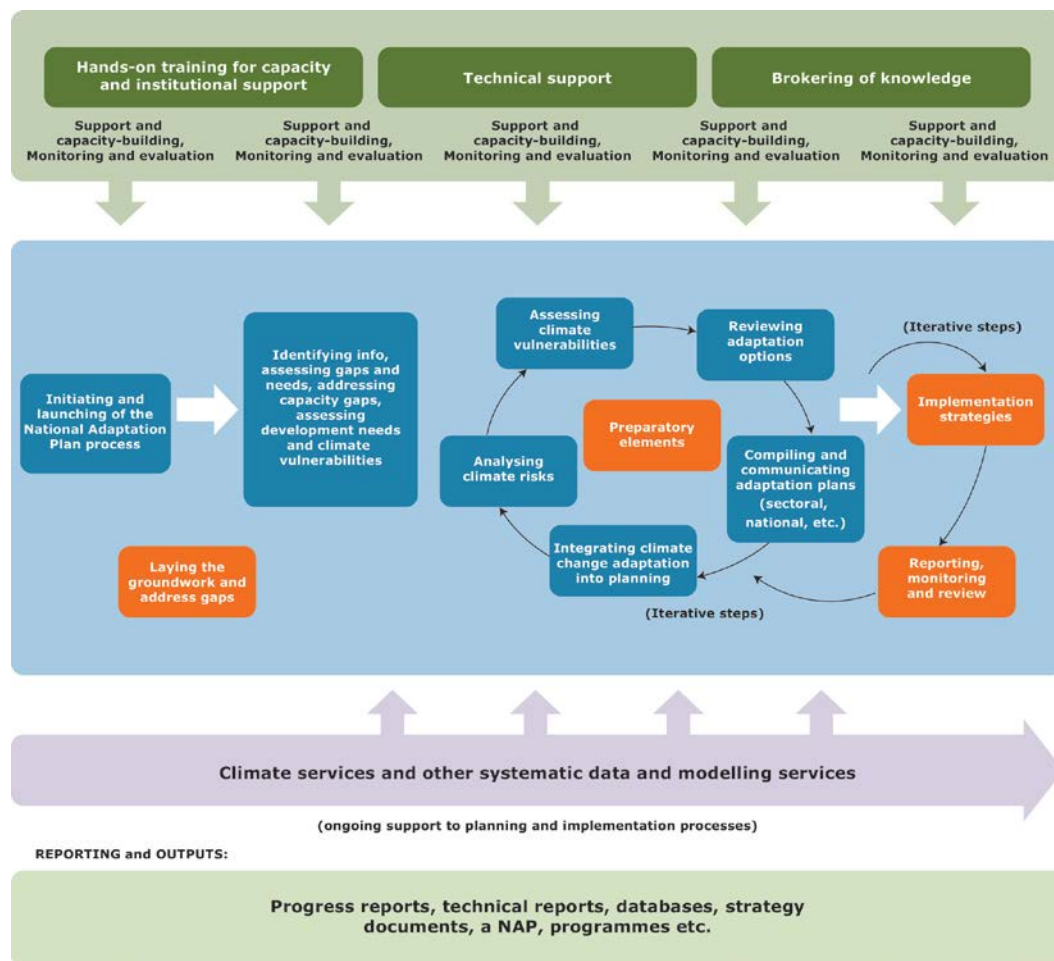


Figure 2 How climate information and services support the National Adaptation Plan process (Source: [WMO, 2016](#))

3. How can climate information and services support the NAP process?

A number of elements in the NAP process require effective and timely climate services. These include assessment of climate vulnerabilities and identification of adaptation options, development of products that help improve the understanding of climate and its impacts, and enhancement of capacity for planning and implementation of adaptation (Table 1).

¹ The LEG was established by the COP in 2001 to provide technical guidance and advice to the least developed countries (LDCs) on the national adaptation programmes of action (NAPAs), the LDC work programme and the national adaptation plan (NAP) process.

Table 1 - Weather, climate and hydrology services that support the different elements of the NAP process

NAP ELEMENTS AND STEPS	Weather, climate and hydrology services
Element A. Lay the groundwork and address gaps	
Stocktaking: identifying available information on 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"> • Archive of past losses • In situ and space-based Earth system observing networks for the monitoring and detection of hazards • Archives and real-time data records flagging when events can be expected for dynamic risk assessment • Real-time monitoring of hazards and development of historical databases
Addressing capacity gaps and weaknesses in undertaking the NAP process	<ul style="list-style-type: none"> • Identify responsible bodies for developing and implementing appropriate measures, warning communication and awareness and education activities
Comprehensively and iteratively assessing development needs and climate vulnerabilities	<ul style="list-style-type: none"> • Provide understanding of risk-assessment demand and requirements • Incorporate relevant climate observations, statistical analysis, forecasts and projections of the weather, hydrological and climate-related extremes in risk assessment processes
Element B. Preparatory elements	
Analyzing current climate and future climate change scenarios	<ul style="list-style-type: none"> • Forward-looking forecasts and trend analysis of hazard characteristics at different temporal and spatial resolutions • Risk analysis (multi-hazard, multi-level and multi-sector) • Identification of information requirements and channels
Assessing climate vulnerabilities and identifying adaptation options at sectors, subnational, national and other appropriate levels	<ul style="list-style-type: none"> • Define requirements for climate services and other non-climate inputs for planning investment in reducing climate vulnerabilities • Engage stakeholders for implementation – finance and planning ministries, disaster risk management authorities, local authorities and government, private sector, etc. • Establish coordination and information channels for relevant information inputs
Reviewing and appraising adaptation options	<ul style="list-style-type: none"> • Identify stakeholders and existing processes for hazard loss-accounting system implementation • Coordinate development of relevant climate products and services in relation to specific application to decision-making in different sectors
Element C. Implementation strategies	
Prioritizing climate change adaptation in national planning	<ul style="list-style-type: none"> • Identify the areas where current information on weather and climate is inadequate
Developing a (long-term) national adaptation implementation strategy	<ul style="list-style-type: none"> • Identify priority regions based on analysis of vulnerability to weather and climate extremes
Enhancing capacity for planning and implementation of adaptation	<ul style="list-style-type: none"> • Strengthen operational climate services, including analysis, forecasts and projection of climatic regimes and interoperability with health, socioeconomic and biological data

4. *Financing*

Adaptation planning, and the NAP process specifically, is crucial for scaling up adaptation interventions. The financial instruments to support the NAPs are multi-fold, reflecting the complexity and flexibility of adaptation planning.

The UNFCCC has established various ways to transfer funds to developing countries, through the [Global Environment Facility](#) (GEF), the Kyoto Protocol's [Adaptation Fund](#) (AF), and most recently the [Green Climate Fund](#) (GCF) to finance implementation of the Convention and the Paris Agreement.

The GEF, which has been operating for more than 20 years, is the most well-established of these mechanisms. The GEF is responsible for administering three important adaptation-related trust funds: the Special Climate Change Fund (SCCF), the Least Developed Country Fund (LDCF), and the Adaptation Fund. WMO is not a GEF accredited entity, however, so for NMHSs to benefit from GEF funding, partnering with an accredited international organization, such as UNDP or the World Bank, is essential.

The GCF was created in 2010 as part of the UNFCCC's financial mechanism to facilitate the development of climate change strategies and plans, including NAPs. By following a country-driven and country-owned approach – in terms of funding and integrating the funding into national planning – the GCF will align climate finance with national priorities and planning processes. The GCF project portfolio is implemented by partner organizations, known as Accredited Entities, in liaison with National Designated Authorities (NDAs).

WMO has been designated an Accredited Entity (Decision B.12/30) to the GCF. This will allow WMO to support NMHSs and other stakeholders to implement GCF projects with budgets of up to USD 50 million. The GCF also provides USD 3 million to countries for NAP preparation, which WMO can support. WMO has submitted several project proposals to GCF aimed at strengthening the national weather, hydrology and climate services in order to improve the adaptation planning in different sectors, such as agriculture, energy, health, water and disaster risk reduction.

WMO is designated an Accredited Entity to the GCF. This role will allow to support the NMHSs in providing climate information services for NAPs.

The AF has been also pioneering innovations in climate finance. Through a direct access mechanism, National Implementing Entities (NIEs) are able to directly obtain finance and manage climate adaptation and resilience projects. The focus of the AF is particularly on supporting concrete and localized projects that help vulnerable communities to meet urgent adaptation needs. Under the AF, WMO has recently received funding for a regional programme on agricultural climate resilience in East Africa which will improve adaptive capacity to current climate variability and change among farmers, agro-pastoralists and pastoralist communities through a better use of climate information.

5. *Guidance on the provisions and scale-up of climate services to the NAP*

WMO (2010) highlighted how only a small number of countries identified WMO, Regional Associations and Regional Meteorological/Climate Centres as key partners in delivering technical services for adaptation. This low result may reflect the current capacity and relationships of these organizations and NMHSs for contributing to the policy process for adaptation. Several measures can strengthen the role and contribution of NMHSs to the NAP process:

- Increase NMHS visibility and recognition within Government and national organizational structures engaged in national adaptation planning;
- Enhance an understanding of the value of NMHS services to the NAP process;
- Strengthen linkages with other organizations and sectors involved in NAPs;
- Enhance legislation or policies regarding the role of the NMHSs in adaptation.

Climate services require multi-disciplinary and multi-institutional collaboration across national institutions and sectoral stakeholders. To achieve this, National Frameworks for Climate Services (NFCS) are key to support the development and application of climate services. A NFCS is an institutional mechanism to coordinate, facilitate and strengthen

collaboration among national institutions to improve the co-production, tailoring, delivery and use of science-based climate predictions and services. NFCSs create the space for sustained dialogue between users from climate sensitive sectors and providers for the identification of gaps, needs and priorities to enable improvements and sustainable delivery of climate services.

Given the representation of providers and sectoral users of climate services, a NFCS could act as a vehicle for producing the necessary inputs for the NAP process. In particular, for example, NFCSs are the ideal place for assessing development needs and climate vulnerabilities (Element A) and identifying climate services as adaptation options at sectoral level as well as reviewing and appraising those options (Element B). NFCSs should be backed by legislative decrees which provide the political endorsement needed by the frameworks to operate.

As resource availability can be a key limitation on NMHSs' ability to provide climate-related products to interested stakeholders, partnering for scaling-up climate finance is strategic. NMHSs are encouraged to continue their active participation in the UNFCCC processes by consulting and partnering with national designated authorities and focal points through direct or designated in-house liaisons. Engagement in funded projects entails national and international collaboration with entities on preparation and implementation of project proposals.

WMO is source of targeted technical advice for integrating weather and climate information and services into project proposals submitted by Parties. Particularly under the new financial windows of the UNFCCC, there is an opportunity to strengthen the scientific and technical dimension of GCF project concepts that focus on issues such as agriculture and food security, water, energy, health and Disaster Risk Reduction (DRR).

By invitation of COP-17, international organizations and other relevant partners established the UNDP-UN Environment [NAP Global Support Programme](#) (NAP-GSP). The aim of this programme is to strengthen LDCs' institutional structures, knowledge and technical capacity for designing and implementing NAPs. Strengthened synergies across UN-supported initiatives (NAP-GSP, GFCS, etc.) will ensure the optimal use of the existing technical, financial and human capacity resources as to support the role of NMHSs in the NAP process.

Thanks to the unique access they provide to weather, water and climate information, NMHSs can offer significant value added to increase quality and impact potential of adaptation activities, which can promote private finance mobilization. The engagement with the private sector through public-private partnerships (PPP) will be crucial as to access innovative cost-effective technologies (e.g. dissemination of adaptation information through communication devices). At the same time, enhanced climate information services will incentivize enterprises to re-orient their investments to take account of climate risks so as to ensure business continuity and profitability in a changing climate.

6. Conclusions

The Paris Agreement will significantly increase demand on NMHSs for user-oriented weather, hydrological, climate and related environmental services. NMHSs are well positioned to back-stop and advance the NAP process in all vulnerable countries, as well as meet the evolving needs of governments, partners and other decision-makers to achieve sustainable development. NMHS engagement in NAP preparation and implementation will substantially enhance countries' abilities to address the risks associated with, and realize benefits from, climate variability and change.

7. *References*

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- WMO (2010), Role of NMHSs in Adaptation to Climate Variability and Change
-