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Background

At its 21st session, the UNFCCC Conference of Parties (COP-21) emphasized the importance of accelerated adaptation planning and implementation. As of August 2017, 152 Parties to the Convention out of 197 have submitted their first Nationally Determined Contributions (NDCs) to the UNFCCC, with 102 including an adaptation component, the majority being developing countries. The UNFCCC report released in October 2016 on progress in the process of formulating and implementing National Adaptation Plans (NAPs) indicates that many more countries, including over 80% of Least Developed Countries (LDCs), have embarked on developing a NAP.

The development and implementation of NAPs involve decisions related to climate risk management, which require reliable, relevant, usable and timely climate information.

Climate information used within the NAP process encompasses a wide range of information on past, present and future climate, and products which help improve the understanding of climate and its impacts on natural and human systems and support decisions to improve climate-related outcomes. Climate services involve the production, translation, transfer and use of climate knowledge and information for this purpose. Climate services, therefore, play a crucial role in the planning, financing and implementation of adaptation to climate change.

In this context and drawing on the WMO-led Global Framework for Climate Services (GFCS), WMO and UNITAR developed capacity building e-learning materials in support of a wider training package on "Integration Climate Risk Information into National Adaptation Planning". The aim of this e-learning component is to contribute to capacity building that will bridge the information and communication gaps currently affecting the demand for climate information services and their supply.

Target Groups and Learning Objectives

The target audience for the e-learning course is broadly categorized in two groups: climate services users (e.g. decision makers, private investors, etc) and climate services providers (National Meteorological and Hydrological Services (NMHSs), research and international organizations, etc.)

- Decision-makers and politicians responsible to establish policy frameworks and regulations that define generation, collection, analysis and provision of climate information services;
- Technical experts and government officials in need of climate services to support decisions necessary for integrating climate risks into sectors (health, energy, water, agriculture and DRR, etc.);
- Private sector representatives interested in getting more involved in climate-resilient investment opportunities;
- NGOs, grass-root organizations and stakeholders groups looking for information and guidance on how to help vulnerable communities to cope with climate change risks and impacts;

• Academic and wider public stakeholders interested in accessing country-based information and best practices on climate information services.

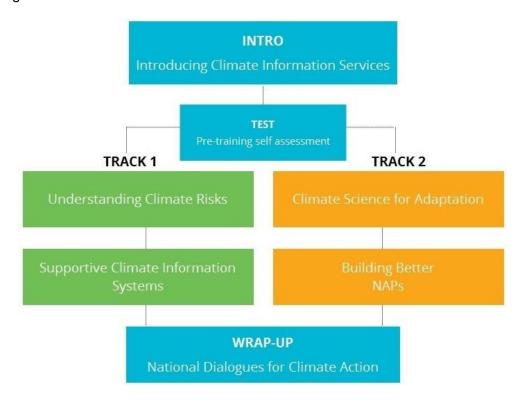
By completing the course learners will be able to:

- Describe the importance of climate information in adaptation planning and decisionmaking.
- 2. Identify technical resources for assessing climate risks.
- 3. Explore the role of National Hydro-meteorological Services in the NAP process.
- 4. Discuss how priority climate actions can be enhanced by climate scientific information
- 5. Identify climate products and services that support NAPs.
- 6. Discuss how to promote effective partnerships between climate information producers and users.

Course Structure and Content

The course is designed to respond the learning needs of both climate services providers (National Hydro-meteorological Services, research/academic and international organizations), and users (e.g. decision makers, private investors, non-governmental organizations, etc.), as well as of those working at the science-policy interface for outreach or communication purposes.

The training is modular and provides you with the liberty to choose and combine different thematic modules. There are two main themes or learning tracks available as illustrated in the figure below.



- Learning track 1 (green-colored): Producing climate information for NAPs
- Learning track 2 (yellow-colored): Using climate information for NAPs

Both learning tracks have in common the Intro and Wrap-up modules.

How to choose the learning track that best suits your profile and learning needs?

Once you complete the Intro module, you are recommended to undertake a test. Based on your answers to the five questions of the test you will be advised to follow either learning track 1 or 2, or both.

Intro: Introducing Climate Information Services

This module is introductory. It provides the relevant terminology, the global context and, together with the self-assessment, it will help you to decide in which learning track to enroll.

Learning Objectives:

- 1. Define climate risk information, climate products and climate services.
- 2. Identify key international policy frameworks where climate information matters.
- 3. Describe climate-affected sectors and how climate services help to achieve national adaptation outcomes.

Understanding Climate Risks

This module will explore key indicators and indexes for evaluating climate risks in GFCS priority sectors. Specifically, it will focus on the key steps for analyzing extremes in a changing climate, supporting informed decisions for adaptation.

Learning Objectives:

- 1. Identify the scientific framework and associated technical resources for identifying and assessing climate risks.
- 2. Describe available resources and techniques to assess climate extremes.
- 3. Distinguish a set of indices that support adaptation decision-making.

Supportive Climate Information Systems

This module will focus on the way in which climate information products and services support each element of the NAP process. Furthermore, it will present some possible solutions for increasing capacity and effectiveness of climate information service providers.

Learning Objectives:

- 1. Describe how to integrate climate information into NAPs.
- 2. Identify the climate products that support NAPs and how they inform the different steps of the NAP process.
- 3. Understand the role of national climate service providers in national adaptation planning and decision-making.

Climate Science for Adaptation

This module will explain the role of climate information in the international policy framework for climate change. It will describe standardized approaches to climate risk assessment and explore how these approaches can increase the value of climate investments.

Learning Objectives:

- 1. Explain the role and importance of climate information in the Paris Agreement and Nationally Determined Contributions (NDCs).
- 2. Describe a standardized scientific framework that support NAP formulation and implementation.
- 3. Discuss how climate science can strengthen adaptation projects and helps to design bankable proposals.

Building Better NAPs

This module will outline how climate information products and services support the elements of the NAP process. Furthermore, it will present some of the best available sources of climate information for adaptation decision-making.

Learning Objectives:

- 1. Distinguish among the various climate information products and services that can inform decision-making throughout the NAP process.
- 2. Understand how climate services are generated and can be accessed through the global hydro-meteorological community.
- Explore how national climate service providers can scale up service delivery for NAPs.

Wrap-up: National Dialogues for Climate Action

This module will explore how climate services require multi-disciplinary and multi-institutional collaboration across national institutions and sectoral stakeholders. Furthermore, it will present how WMO and GFCS is committed to increase the capacity of climate information service providers as well as improve the dialogue between stakeholders in all climate-sensitive sectors.

Learning Objectives:

- 1. Identify how to increase climate information providers' visibility and recognition through enhanced legislation and policies.
- 2. Identify the role and importance of National Frameworks for Climate Services (NFCS) to support the development and application of climate services for NAPs.
- 3. Discuss how to promote effective partnerships between climate services producers and users for transformative climate action.

Methodology and Certification

The course is self-paced and adapted to the schedule of full-time working professionals. Participants are provided with the opportunity to learn through various experiences: absorb (read); interact (activity); and reflect (relate to one's own reality).

The six modules of the course are self-standing and can be completed in any order. However, it is recommended that learners complete the Intro module first, followed by the pre-training self-assessment. Based on the answers provided to the five questions of the test learners will benefit of an advice on which track to follow.

Each learning track concludes with a quiz which will assess the knowledge learners will acquire. If learners pass the quiz with a minimum mark of 70%, a certificate of completion will be issued to them. If they choose to follow both learning tracks, they can receive two certificates by passing both quizzes.

Learning resources

To support this learning, the course features a range of learning activities and experiences. This includes videos, interactive lessons, reading materials and quizzes.

Video

There will be videos throughout the course featuring case studies and work conducted on the ground.

Interactive lessons

The interactive lessons are provided with the purpose of achieving the three to four specific learning objectives per module and contain a series of interactive spaces. These guide the learner through the various themes and key messages.

Reading materials

The reading materials come to support the interactive lessons and help learners to acquire a better understanding of concepts.

Quizzes

There are two quizzes, one for each learning track. They assess the achievement of the learning objectives for each learning track. Each quiz can be attempted a maximum of three times. Passing a quiz with at least 70% rewards learners with a certificate of completion which can be downloaded from the "Achievements" section.

Course evaluation

Participants will be requested to provide feedback on the course by filling in a feedback form that can be accessed in the "Achievements" section.

Technical Requirements

Browser:

- The course works best with Firefox 3.6 or higher (download for free at https://www.mozilla.org/en-GB/)
- The course is also compatible with Google Chrome (download for free at https://www.google.com/intl/en/chrome/)
- For technical reasons, it is not recommended to use Internet Explorer.
- Note: JavaScript & Cookies must be enabled.

Software:

- Adobe Acrobat Reader (download for free at http://www.adobe.com/products/acrobat/readstep2.html).
- Adobe Flash Player (download for free at https://get.adobe.com/flashplayer/)
- Microsoft Office (Windows or Apple version) or Open Office (download for free at http://www.openoffice.org)

Platform: Windows 95, 98,2000, NT, ME, XP or superior; MacOS 9 or MacOS X Hardware: 64MB of RAM, 1 GB of free disk space

Modem:56 K