Future-proofing National Adaptation Plans

This document is submitted to the 18th Plenary for information

1 INTRODUCTION

Climate adaptation seeks to reduce the vulnerability of ecological, social and economic systems to climate change; and to minimize damage - or, in some cases, exploit benefits - associated with climate change.

Timely, accurate and long-term information is needed to inform the development and implementation of climate adaptation plans. However, in many cases, limited coverage of observing stations, insufficient historical records and measurement/calibration errors constrain the provision of adequate, consistent, and accurate climate-related data essential for adaptation.

These gaps can be filled with Earth observations (EO), which provide the scientific basis for planning, implementing, and monitoring appropriate adaptation measures.

Notably, the full and open exchange of data and the use of in situ and remotely sensed observations are critical for comprehensive risk management policies—including early warning systems—in response to climate change and variability. In addition, EO can help countries seek climate financing by providing a scientific rationale for climate scenarios, risk assessments and consistent prioritisation of adaptation measures.

However, for many, EO-based evidence has been out of reach due to insufficient access to open satellite EO data, inadequate internet bandwidth, and the capacity to turn EO data into information. Advances in open data access, cloud computing and unrestricted access to analytical tools have broken down many of these barriers, but adoption in low- and middle-income countries still lags.

2 ADAPTATION UNDER THE UNFCCC

Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement recognize that adaptation is a global challenge faced by all countries with local, subnational, national, regional and international dimensions. It is a key component of the long-term global response to climate change to protect people, livelihoods and ecosystems.

The National Adaptation Plan (NAP) process was established at COP16 in 2010. It is intended as a continuous, progressive, and iterative process to identify medium- and long-term adaptation needs; and develop and implement strategies and programmes to address those needs. The NAP process was initially limited to Least Developed Countries (LDCs),

but other developing countries were also invited to use the NAP modalities for their adaptation planning efforts in 2011.

In 2012, the Least Developed Countries Expert Group (LEG) published technical guidelines to assist LDC in the formulation and implementation of NAPs.

The 2015 Paris Agreement calls on each Party to engage in adaptation planning processes and the implementation of adaptation actions, including NAPs. This is the only legally binding element for all Parties on adaptation in the Agreement.

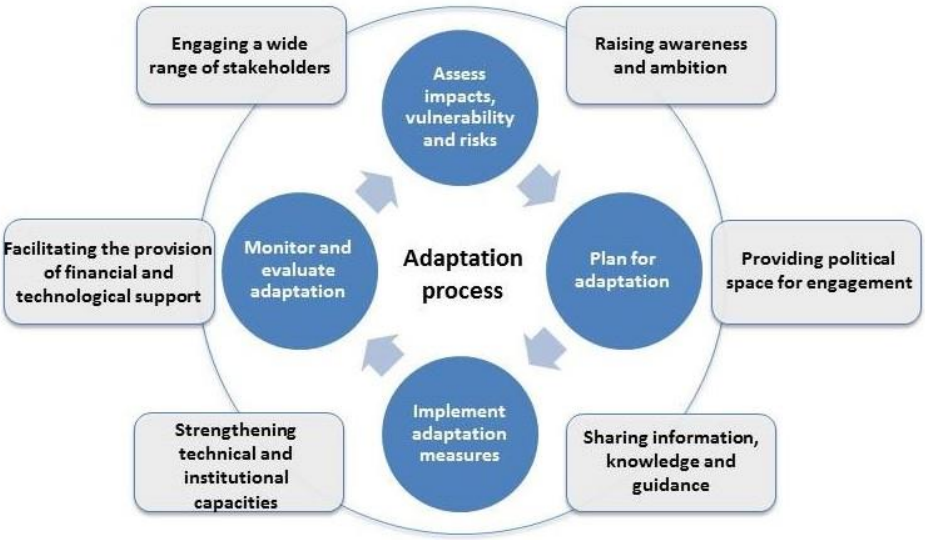

Fig. 1. The adaptation cycle under the UN climate change regime, including four general components: Assessment; Planning; Implementation; and Monitoring and Evaluation.

3 SUPPORT TO DEVELOP NATIONAL ADAPTATION PLANS

Although adaptation action is mandatory for all Parties to the UNFCCC, support is targeted to the most vulnerable developing countries.

The Green Climate Fund (GCF)'s investments are aimed at achieving maximum impact in the developing world and supporting paradigm shifts in both mitigation and adaptation, notably through approaches that invest systematically in the value chain of climate information services, Multi-Hazard Early Warning Systems, and early action capacity.

In 2015, COP21 requested the GFC to accelerate support for the formulation of NAPs and implementation of activities in developing countries. Subsequently, the GCF Board decided to provide financial support for the formulation of NAPs through its Readiness and Preparatory Support Programme, through which a grant of up to USD 3 million is in place for the formulation of NAPs and other adaptation planning processes.

Once finalised, developing countries can forward their NAPs to the NAP Central site. Adaptation strategies and plans of developed countries are also available on the site, in addition to a calendar of NAP related events and trainings. The NAP Expo is the annual

outreach event organised by the LEG to promote exchange of experiences and foster partnerships between a wide range of actors and stakeholders on how to advance NAPs.

4 SUPPORT TO IMPLEMENT NATIONAL ADAPTATION PLANS INTEGRATING EARTH OBSERVATIONS

The Group on Earth Observations (GEO) aims to provide support to LDCs and other developing countries to identify opportunities offered by EO technology to integrate ground-based and space-based data and information into the NAP processes, with a multi-sector approach.

GEO developed a supplement to the 2012 UNFCCC NAP technical guidelines to address EO solutions to agriculture and food security-related challenges. While it builds on the technical guidelines by the UNFCCC LEG for the formulation of NAPs, the GEO supplement mostly focuses on the technical implementation of NAPs. It aims to provide countries with practical guidelines and opportunities to drive the implementation of their adaptation agenda, based on the experience of the GEO Global Agricultural Monitoring (GEOGLAM). GEOGLAM has successfully co-designed national crop monitoring systems that trigger early warnings and disaster risk financing mechanisms, efficiently tackling adaptation and loss and damage with EO methodologies and data embedded in institutional systems in LDCs in Africa and worldwide.

The target audience for the GEO supplementary technical guidance includes government agencies responsible for agriculture production, planning, statistics, and emergency response, including Ministries of Agriculture, Environment and Public Safety. It can also support international organizations and NGOs in their response to emerging food security concerns.

5 WAY FORWARD

The first edition of the GEO supplement to the UNFCCC NAP technical guidelines was preliminary presented to country delegates and partner organisations at the NAP Expo that was held from 22-26 August 2022 in Gaborone, Botswana. GEO's presence at the NAP Expo 2022 included keynote speakers, multiple parallel sessions with experts and country representatives, demonstrations of web tools and services, as well as a GEO booth. The GEO Secretariat and the key GEO initiatives that are developing EO-based tools and services in support of adaptation were present, including GEOGLAM, GEO Global Water Sustainability (GEOGloWS), GEO Blue Planet, and Digital Earth Africa.

The final version of the GEO supplement to the UNFCCC NAP technical guidelines is presented to the 18th GEO Plenary. A dedicated event is being planned also for COP27 in Sharm-El-Sheikh, Egypt. The GEO supplement will be submitted to the UNFCCC Secretariat for dissemination with developing countries through the dedicated NAP Central portal.

The first edition is expected to be followed by other sectoral guidance documents addressing key issues or themes for the NAP process with the use of EO. Other GEO activities are at the right level of maturity to develop supplementary technical guidance,

notably on adaptation in coastal areas by Blue Planet via its partner Climate Service Center Germany, and flood risk management in freshwater basins by the GEOGloWS initiative. Additionally, Digital Earth Africa could be fit to support regional adaptation strategies in neighbouring African countries that share similar issues with regard to climate impacts and response.

Collaborations with the GCF and implementing partners is being explored by the GEO Secretariat on the basis of existing experiences accessing GCF funding for in-country projects by leading organisations under GEO activities.

6 DISCUSSION POINTS

The call by the UN Secretary-General to ensure every person on Earth is protected by early warning systems within five years has recognised the importance of early warning and early action for the climate adaptation agenda. This is also reflected in the approach adopted by the GCF in relation to prioritising the financing of the value chain of climate information services, Multi-Hazard Early Warning Systems, and early action capacity.

In the 18th GEO Plenary session "Future-Proofing National Adaptation Plans", countries will learn about ongoing technical support to develop and implement Earth observation-based monitoring systems to improve the effectiveness of early warning and early action in the context of NAPs to climate change across key sectors.

GEOGLAM will launch the new GEO Supplement to the UNFCCC NAP Technical Guidelines, which will be followed by guidelines by GEOGloWS and other GEO initiatives.

The success of the adaptation process is highly dependent on sustained genuine and active engagement of governments, public and private sector, as well as individual stakeholders. Experts and government representatives will discuss and identify opportunities to unlock finance for developing countries to integrate Earth observations into NAPs.

7 KEY REFERENCES

NAP Central: NAP Central Home | NAP Central

LEG Technical guidelines for the national adaptation plan process (2012): naptechguidelines_eng_high_res.pdf (unfccc.int)

Supplementary materials to the NAP technical guidelines: Supplementary materials to the NAP technical guidelines (unfccc.int)

NAP Expo 2022: NAP Expo 2022

GEO showcases climate adaptation guidance at UNFCCC NAP Expo: GEO showcases climate adaptation guidance at UNFCCC NAP Expo (earthobservations.org)

Sharma A., Venturini S. (2019) Pocket Guide to Adaptation: PGAdaptation_1.pdf (ecbi.org)

GCF Country Readiness for NAPs: National Adaptation Plans | Green Climate Fund

GCF Adaptation Planning: GCF in brief – Adaptation planning (greenclimate.fund)