AFRICAN TECHNOLOGY POLICY STUDIES NETWORK (ATPS)

ATPS

TRAINING MANUAL

MONITORING THE IMPLEMENTATION OF NATIONALLY DETERMINED CONTRIBUTIONS (NDCs) USING TRACKING TOOLS AND INDICES

AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE
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NATIONALLY DETERMINED CONTRIBUTIONS (NDCs) IMPLEMENTATION MONITORING TRAINING MANUAL

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The African Technology Policy Studies Network (ATPS) is a transdisciplinary network of researchers, policymakers, private sector actors and the civil society promoting the generation, dissemination, use and mastery of Science, Technology and Innovations (STI) for African development, environmental sustainability and global inclusion. In collaboration with like-minded institutions, ATPS provides platforms for regional and international research and knowledge sharing in order to build Africa's capabilities in STI policy research, policymaking and implementation for sustainable development.

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ABOUT THE PROJECT

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Numerous attempts have been made globally to regulate climate-induced challenges through mitigation and adaptation measures. The three most potent Conventions, Protocols, and Agreements that come into mind include the United Nations Framework Convention on Climate Change (UNFCCC) of 1994, the Kyoto Protocol of 1997, and the Paris Agreement of 2015. From the Rio Summit of 1992 to the Paris Agreement in the Conference of Parties (COP) 21, they all aim at reducing greenhouse gas (GHG) emissions. However, the coming into force of the Paris Agreement, a legally binding treaty based on the Party's voluntary submissions was seen as a major milestone towards bringing years of near-deadlock negotiations to a conclusion and progressive global responsibility by all aimed at combating the rising GHGs. The Nationally Determined Contributions (NDCs), with conditional and unconditional commitments, are key by-products of the Agreement and require all the countries to spell out their intended actions to address climate change over 5-year periods in terms of adaptation, mitigation, and means of implementation as well as opportunities arising therefrom and sustainable development co-benefits for the continent. Despite the Paris Agreement providing little guidance on what and how climate change adaptation would be included in the NDCs, most African NDCs highlight a number of cross-cutting strategies to address their mitigation ambitions as well as their adaptation needs.

This is purblind considering the continent is already dealing with increased severity and frequency of climate risks and hazards due to its geographical positioning, overreliance on climate-sensitive production sectors such as agriculture, tourism, resource, and infrastructure deficit, and the limited adaptive capacity of the people.

It is against this background that the ATPS and its partners, in 2019, developed and piloted an NDC implementation monitoring, tracking tools, and index to gauge the status of NDC implementation in countries against the targets indicated in their submitted NDCs. This was measured across the five (5) NDC components [Governance, Finance, Mitigation, Adaptation and Measurement, Reporting and Verification (MRV)] as depicted in the monitoring tool and Index.

The Index will indicate areas among the components where each country is performing well and where they are not performing well, hence, enabling policy decisions to improve in areas where performance is low. Moreover, the Index promotes comparability among countries/regions which can spur healthy competition to improve country/regional compliance based on the Index results. The “Building the Capacity of Selected sub-Sahara African Countries to Effectively Measure Progress in their Nationally Determined Contributions’ Implementation Using Tracking Tools and Indexes” project, therefore, seeks to utilize the key product from this pilot study (monitoring and tracking tools) already developed and validated in eight (8) African countries to build the capacity of focal persons/champions in twelve (12) selected SSA countries (Botswana, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Namibia, Nigeria, Sierra Leone, Tanzania, Uganda, Zambia and Zimbabwe) to effectively measure their NDCs implementation progress using the tracking tools and Indexes. As part of the project, this training manual has been developed to aid in building the capacity of Africans to monitor and track their NDC implementation.

ABOUT THE PROJECT PARTNERS

The **African Technology Policy Studies Network (ATPS)** is a trans-disciplinary network of researchers, policymakers, private sector actors, and civil society actors that promote the generation, dissemination, use, and mastery of Science, Technology and Innovation (STI) for African development, environmental sustainability, and global inclusion.

ATPS has over 5,000 network members and 3,000 stakeholders in over 51 countries in 5 continents with institutional partnerships worldwide. In the year 2000, ATPS became an autonomous international organization with diplomatic status in Kenya and working on transdisciplinary STI themes for African development. Whilst retaining the STI focus, ATPS has moved towards a “knowledge for development” network for Africa. Programs are implemented at least cost through members in national chapters established in 30 countries (27 in Africa and 3 Diaspora chapters in Australia, USA and UK). The ATPS implements its projects through the National Chapters that are headed by National Coordinators who are statutorily constituted. The ATPS and partners have longstanding technical expertise and experience in climate change research, policy, practice and development. Most specifically ATPS has developed and designed the NDCs implementation, monitoring and tracking tools for measuring the progress of countries in meeting their NDCs targets.

During the 2019 and 2020 periods, the partners piloted the development of NDCs implementation index, monitoring and tracking tools in eight African countries namely:

- Botswana
- Cote d’Ivoire
- Ethiopia
- Gabon
- Kenya
- Nigeria
- Tanzania
- Zambia

The tools were validated with participation from key stakeholders from the respective countries and partners including the AfDB, UNECA, RECs, etc.

Reports from this study were published and available on the project link above.

ATPS has also successfully implemented other African Development Bank (AfDB) Projects recently under the Climate for Development in Africa (ClimDev) Special Fund (CDSF) such as the "Bridging climate information gap to strengthen capacities for climate-informed decision making in Africa".

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The **Pan African Climate Justice Alliance (PACJA)** is a consortium of more than 1,000 organisations from 51 African countries and brings together a diverse membership drawn from Faith-based Organizations, Community-based Organizations, Non-Governmental Organizations, Trusts, Foundations, Indigenous Communities, Farmers and Pastoralist Groups with a shared vision to advance a people-centred, rights-based, equitable, just and inclusive approach to climate response. Currently, PACJA is implementing a variety of projects that traverse direct programming, policy and advocacy, sub-granting and capacity building, mainly focusing on the most vulnerable groups which are "unreachable" in traditional development paradigms. The Alliance plays a central role in key African processes spearheaded by African Union, UN Economic Commission for Africa (ECA) and AfDB, among them, the flagship ClimDev Programme.

It is a Partner in the Adaptation of African Agriculture on Climate Change Initiative (AAA), whose main goal is to build resilience for the mainly smallholder agriculture from climate change shocks. The Alliance also supports several governments through its national Platforms, in addition to other key Actors such as media, parliamentarians and sector-based networks through targeted and dedicated initiatives tailor-made for respective stakeholder groups.

PACJA is successfully implementing a 10-country sub-grant Project supported by the World Bank's Forest Carbon Partnership Facility (FCPF), which aims to build the capacity of forest communities on REDD+ (Reducing Emissions from Forest Degradation and Deforestation in Developing Countries). It is also receiving another stream of funding to sub-grant communities in eight other countries most of which are proposed in this project to mobilise and strengthen networking for resilience building and adaptation to climate change impacts. To support its activities, PACJA's main financial funding comes from the Swedish International Development Agency (SIDA) and the World Bank.

Other partners, such as Germany's GIZ, UK's Department for International Development (DFID), USAID, the Netherlands Ministry of Foreign Affairs, NORAD and the EU support specific Projects and Initiatives directly or through intermediaries. Oxfam International, Christian Aid, Trocaire, Open Society Foundations, Diakonia, Bill and Melinda Gates Foundation, Save the Children, WaterAid and SNV also work with PACJA in specific sector-based Projects, campaigns and initiatives at the counties, national or regional levels.

The **West Africa Green Economic Development Institute (WAGEDI)**, Gregory University Uturu (GUU) Abia State Nigeria is a research and advocacy institute with the mandate to promote low carbon, resources efficient development pathways in Africa and beyond. It was established in 2018 with research members drawn from some African countries with the overarching objective of bringing to the fore research on green innovations and creating a linkage and synergy between academic research outcomes with the industry, government, civil society, etc. So far WAGEDI is in collaborative relationships with the ATPS, ECREEE, Africa Union, Scientific, Research and Innovative Council, some relevant Ministries, Department Agencies (MDAs) in Nigeria, and Green Economics Institute, UK, amongst others.

We also render consultancy services and training programmes for public and private sectors, civil society and the likes. Some milestones recorded by WAGEDI include but are not limited to the following: Engagement with members of Non-Key Experts (NKE) in the implementation of ongoing EU-funded 4-year Nigeria Climate Change Response Programme (NCCRP); Engagement with Nigeria's Rural Electrification Agency (REA) for Nigeria Electrification Project (NEP), World Bank assisted Clean Development Mechanism (CDM) Project. The project has received a Letter of No Objection from the Department of Climate Change Federal Ministry of Environment following the submission of the Project Idea Note. This involves GHGs emission reduction in the Power sector thereby enhancing Nigeria's profile on climate actions; Climate Change and Sustainable Development Focus on Sahel and Sahara Region of Africa: Sustainability Analysis Study. WAGEDI received a letter for Mohammed VI Prize in Morocco as a Potential Prize Nominee for the 2019 Mohammed VI Prize for Climate and Sustainable Development; Member of the Governing Inclusive Green Growth in Africa (GIGGA) Network, scoping study on inclusive green growth in Africa in five pilot countries- Nigeria, Kenya, Ethiopia, Rwanda and South Africa.

Acknowledgment

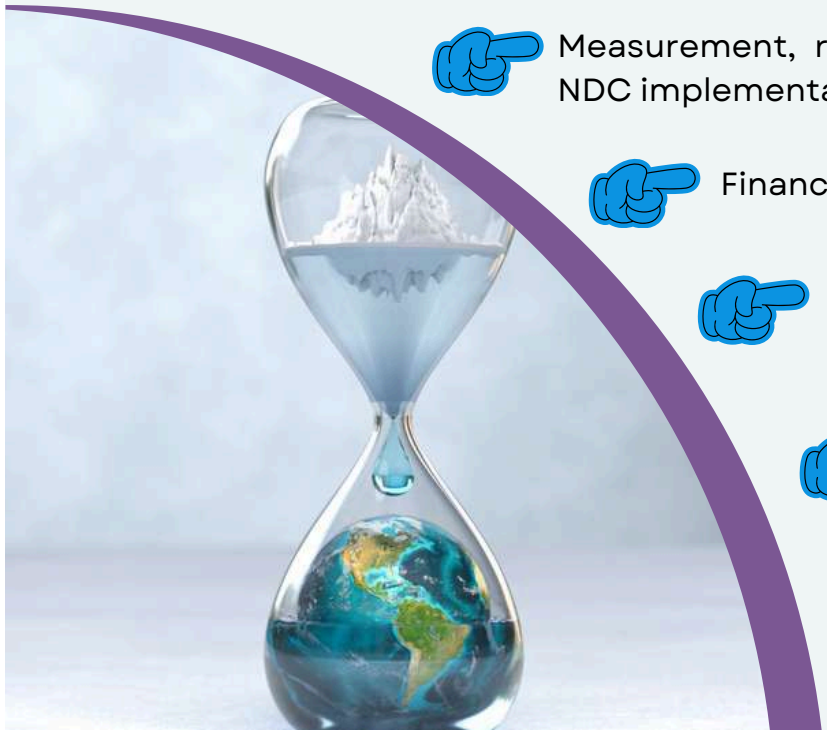
The ATPS on behalf of the consortium, wishes to express its gratitude to the African Development Bank (AfDB) through its African Climate Change Fund (ACCF) facility for supporting this project both financially and technically. We also take this special opportunity to thank all the countries and their focal points for their support and cooperation. Special thanks to the various stakeholders involved in the project and staff of the ATPS and partners for their dedication in ensuring the successful implementation of the project as well as the development of the Training Manual.

About the Training Manual

The African Technology Policy Studies Network (ATPS) and its partners Pan-African Climate Justice Alliance (PACJA) and West Africa Green Economic Development Institute (WAGEDI) are implementing the “Building the Capacity of Selected sub-Sahara African Countries to Effectively Measure Progress in their Nationally Determined Contributions’ (NDCs) Implementation using Tracking Tools and Indexes” project. As part of project implementation, a stakeholder mapping study on the Nationally Determined Contributions (NDC) implementation in twelve (12) selected Sub-Saharan African countries namely Botswana, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Sierra Leone, Namibia, Nigeria, Tanzania, Uganda, Zambia, and Zimbabwe were conducted. This led to the identification of focal persons and climate change champions who will be trained to be Trainers of Trainer (ToT) on the use of NDCs.

The Manual will cover vital areas including:

- Introduction to Nationally Determined Contributions (NDCs)
- NDC Components
- NDC implementation frameworks
- Measurement, reporting, and verification (MRV) of NDC implementation
- Financing NDC implementation
- Tracking NDC Implementation using NDC index tool
- Rating of a country and generation of NDC indexes for the different components



Objectives of the Manual

This Manual on NDC implementation and tracking tools has the following general objectives:

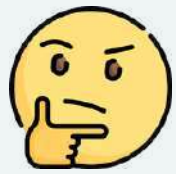
1. Equipping policy makers, scientists, focal persons, climate change champions, and practitioners with knowledge and skills on NDC implementation and the use of various tools to track progress.
2. Equipping policy makers, scientists, focal persons, climate change champions, and practitioners with content and skills to train others on NDC implementation and the use of various tools to track progress.
3. Motivating policy makers, scientists, focal persons, climate change champions, and practitioners to appreciate the value and importance of the timely collection and accurate data for NDC implementation.
4. Providing instruction and skills on how to use NDC implementation tracking tools and indexes.
5. Use of the data and indexes to track progress and interpret them for policy makers, scientists, focal persons, climate change champions, and practitioners for climate action in line with the Paris Agreement.

These objectives should be written on a manila card, white board, newsprint, or chalkboard or use a transparency and overhead projector or any other appropriate material to share them with your colleagues and trainees.

Some Assumptions

This training Manual has been designed with several assumptions in mind, including the following:

- Policy makers, scientists, focal persons, climate change champions, and practitioners can make well-informed decisions when they have complete, accurate, and unbiased information.



- Policy makers, scientists, focal persons, climate change champions, and practitioners have opportunities to gain the appropriate information and skills about collecting, analysing, synthesising, and maintaining evidence-based data and tools for decision-making.

- Experiential learning, including role-playing, games, and songs, is an excellent way to learn.

One of the most crucial assumptions that this manual makes is about the facilitator. The facilitator is the key to the success of this intervention. The facilitator should have the following traits:

- *Be social and enjoy interacting with people from different backgrounds.*
- *Be knowledgeable about climate change, policies and climate information and services.*
- *Be knowledgeable about NDC, its processes and implementation*
- *Be respectful of others and their opinions.*
- *Be enthusiastic about facilitating this Manual.*
- *Have good communication and group facilitation skills.*
- *Be non-judgmental.*
- *Be proficient at using a variety of participatory and experiential programme techniques.*

“Facilitators are free to add questions to exercises or alter the sessions in other appropriate ways to make the content more relevant to the participants. If you are training people who have little experience with this subject matter, facilitators are advised to present the training in its entirety. If trainees have had some exposure to this type of information, conduct a needs assessment to determine what information they have and what gaps exist. Then, select the topics that best fulfil their training needs.”

Facilitation Approaches & Techniques

Experiential Education

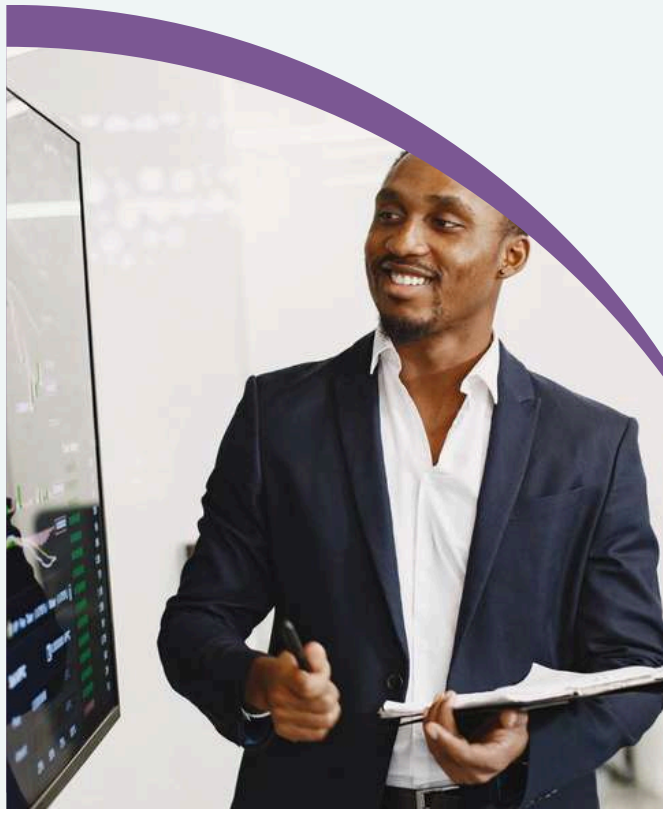
Experiential activities in this Manual are designed to help trainees gain information, examine attitudes, and practise skills. There are structured exercises in which the trainees do something and then process the experience together, generalising what they learned and, ideally, attempting to see how the information would apply to their work. Experiential learning is participant-centred. Although the role of the facilitator is crucial, creating the learning experience is ultimately a group responsibility.

One way to make this training successful is to involve the trainees in their own education. Here are some tips for conducting experiential activities:

- Review the unit and activities thoroughly until you feel comfortable with the steps.
- If possible, do a 'dry-run' before introducing a new activity to the group.
- Consider the learning points of the activity and prepare questions to trigger discussion.
- Keep an eye on the clock so there is sufficient time for group sharing and discussion.
- Remember that although doing the activity is fun, it is in processing the experience that learning takes place.

Specific Techniques

The training Manual employs a variety of techniques, some of which you may be more comfortable with than others. Do not be afraid to try new techniques. There are many different kinds of activities, including role-plays, games, values clarification and voting, brainstorming, small group work, problem-solving scenarios, and presentations by guest speakers. Here is a brief description of some training techniques:



Visualisation in Participatory Programmes (VIPP)

VIPP involves the use of different shapes of coloured cards so that everything that is done during a session, either individually or collectively, can be visualised, processed, synthesised and shared. VIPP encourages everyone to participate and is based on well-founded theories of adult learning.

Lecturette

A lecturette is a short (10 to 15 minutes), structured, and orderly presentation of information delivered by a facilitator. A lecturette can be used to impart knowledge or introduce skills. A lecturette that allows for an exchange between the speaker and the trainees is usually more effective.

Discussions

Discussions are useful in both large and small groups. Small groups may offer shy or less-verbal learners more of an opportunity to speak. During group discussions, the facilitator should try to control the flow of conversation, if necessary.

Role-plays

Role-plays are short dramas in which learners can experience how someone might feel in a situation, try out new skills, and learn from each other. Role-playing in small groups or pairs is usually less threatening for learners and allows more people a chance to participate. Ask for volunteers, because many people are embarrassed or uncomfortable acting in front of a large group. After the role-play, be sure to declare the role-play over and ask questions about it.

Case studies/scenarios

Case studies are stories, either fictional or true, that put information into context by describing a problem and discussing how it might be or was resolved. Feel free to adapt any scenarios in the Manual to better suit your trainees. Asking the trainees to come up with case studies or scenarios, sometimes as an assignment, is a good way to ensure realistic situations and language.

Brainstorming

Brainstorming is a free-flowing exchange of ideas on a given topic. You ask a question, pose a problem, or raise an issue, and learners suggest answers or ideas. Write all suggestions down for the group to see. No editorial comment or criticism is allowed. When the brainstorming is finished, the group evaluates the ideas together, perhaps to identify those they consider most useful or to categorise them in some helpful way.

Guest speakers

Guest speakers can bring a topic alive by discussing personal experiences and sharing their feelings. Identify guest speakers and invite them in early enough to ensure they can participate in the workshop. Make sure they are dynamic, knowledgeable about the topic, and comfortable speaking in front of an audience. Prepare the trainees for the speaker ‘s presentation so that they know what to expect, are ready with questions, and act respectfully. Prepare the speaker with information about the group and a clear understanding of your expectations.

Games and exercises

Games and exercises are very much a part of this training. They include such things as introductions, energisers, and warm-ups. These games and exercises enhance the amount and the quality of interaction in the group. Energisers and warm-ups can be done just before the start of a session, immediately before or after a break, or just before the end of the day‘s sessions. You can use the ones that are described here or substitute others.

Evaluation of Training Sessions

The training will be evaluated in several ways.

Moodmeter: At the beginning of the topic, prepare a chart called “The Moodmeter”. The mood meter is an instrument for the subjective measurement of the mood and atmosphere of the group. It is not directly related to the content of the workshop.

Prepare a chart on newsprint with the total number of days or sessions written in a horizontal line. In a column, draw at least three different mood symbols: for example, faces showing happiness, indifference, sadness, frustration, or anger. Alternatively, temperature indicators such as 15 F/25 F/35 F can be used. Ask the trainees to place an X or a dot in line with the emotion they are feeling at the end of the day or the session. You can draw a line through the dots or Xs that reflect the group feeling or the ups and downs of the group. This could be used to discuss the energy level of the group or possible success or dissatisfaction.

Flash: Stand in a circle with the participants. Ask a direct question to the group: for example, “Tell me how you feel about the workshop today?” or “What two new things did you learn today?” Ask each person to give a personal opinion in a very short statement, going round the circle. It is called “flash” because of the speed in which opinions are given. It should not take more than 30 seconds for each person. No discussion is allowed while the flash is going on.

Your role is always to ask the opinions of the trainees and permit a variety of ideas to be stated. However, you should remind the group to be constructive in their criticisms and to look for ways to improve the training.

How to Use the Training Manual

This Manual is primarily intended for use by trainers and programme managers. However, it can also be used to train field workers and service providers. It has been written specifically for the African context. You may need to adapt it to suit the needs of the trainees or learners in your organisation.
In total, the Training Manual has five units, as follows:

- **UNIT 1:** Introduction to NDCs
- **UNIT 2:** NDC Components
- **UNIT 3:** NDC Implementation Frameworks
- **UNIT 4:** Measurement, Reporting, and Verification (MRV) of NDC implementation
- **UNIT 5:** Financing NDC Implementation
- **UNIT 6:** Tracking NDC Implementation using NDC index tool
- **UNIT 7:** Country rating and generation of NDC indexes for the different components

Each unit is broken into sessions. Some sessions have experiential activities that address the topic's objectives in a variety of interesting ways. Each unit specifies the purpose, the materials needed, the approximate time required, and the steps to follow. Each unit specifies the preparation that must be done before the session. Some sessions have handouts for the trainees.

To design and conduct a programme tailored to the needs of your colleagues, you need to do the following:

- Familiarise yourself with the entire Training Manual. Note that each unit may have several sessions.
- There is a pre-prepared presentation for all the units in this manual. This can be accessed here. You can modify sections depending on the audience.
- The time allocated to each session is only a guide. Adjust the time according to the needs of the trainees.
- Prepare handouts or other materials that may be needed before the session begins. If guest speakers are required, make sure they are invited well ahead of time and have been properly briefed about what you expect of them.
- Introduce each unit by presenting the unit's objectives.

UNIT 1: Introduction to Nationally Determined Contributions (NDCs)

01

Content	This unit will describe: • The concept of Nationally Determined Contributions (NDCs) • The genesis and purpose of NDC, and • The international climate change agreements
Objectives	At the end of this unit, participants will be able to: **i)** Explain the concept of NDCs; **ii)** Understand the genesis and purpose of NDCs; **iii)** Formulate NDC goals and targets; **iv)** Explain the relationship between the NDC and Paris Agreement (2015); **v)** Explain some other international climate change Conventions and Protocols such as UNFCCC (1994) and Kyoto Protocol (1997)
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method
Reference materials	• List of Parties to the Paris Agreement • What are NDCs and how do they drive climate action? • 'Tough' to meet climate finance targets ahead of COP26 • Pocket Guide to NDCs • What are Nationally Determined Contributions (NDCs)? • The Paris Agreement and NDCs • Global Stocktake

Session 1.1: Presentation on the NDC concept, genesis, and purpose

The facilitator will make a short 10-15 minutes presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also set the scene for further discussions in the subsequent sessions. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 1.2: Group Work

Assuming that there are 30-40 participants in the workshop, divide the participants into 5 groups (6-8 people per group). Ensure that the groups have a good mix in terms of gender and type of stakeholder. Assign each group an exercises as provided below. This activity will be conducted within 30 minutes. The group members will appoint a chairperson, a scribe, and a rapporteur.

Group 1: Why are NDCs important in the context of global climate action? What role do they play in addressing climate change concerns?

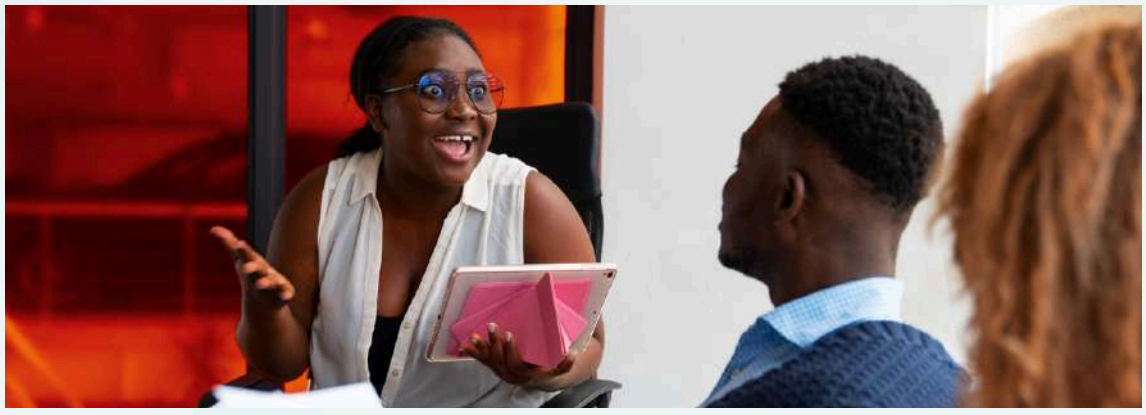
Group 2: Can you provide examples of specific mitigation and adaptation actions or measures that a country might include in its NDCs?

Group 3: How do NDCs contribute to achieving targets in respective country's commitment under the Paris Agreement?

Group 4: What challenges might countries face when implementing their NDCs? How can these challenges be addressed effectively?

Group 5: How would you prioritize your country's NDC type based on the sectors captured? Give reason(s) for the priority focus.

Note: Each group will write on flip charts as clearly as possible. They will be collected at the end of the session.



Session 1.3: Plenary discussion

The groups will make 5-minute presentations of their work in session 1.2. There will be open discussions on the presentations where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

Facilitator's notes

The Paris Agreement is an international agreement within the United Nations Framework Convention on Climate Change (UNFCCC), dealing with greenhouse gas emissions mitigation, adaptation, and finance in the year 2015. The agreement aims to limit global warming to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

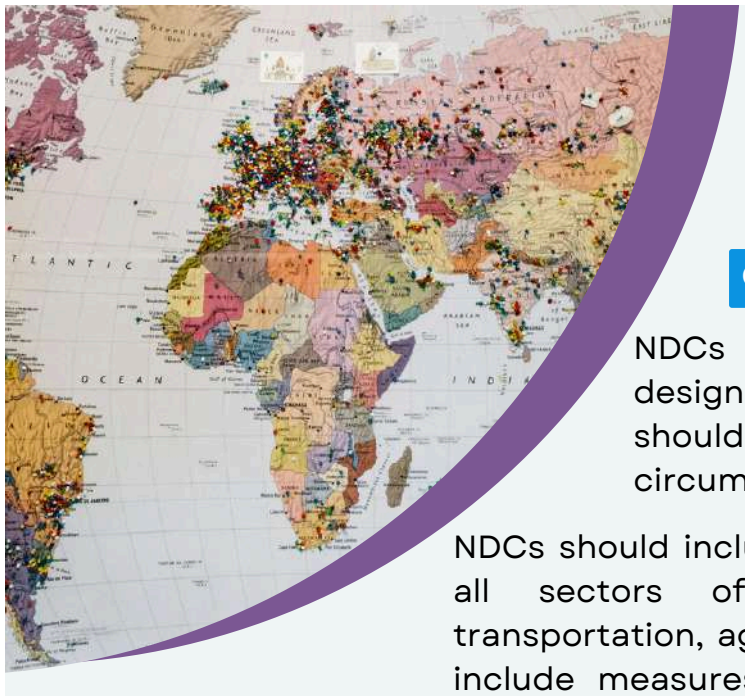
NDCs are the cornerstone of the Paris Agreement. They are climate pledges made by countries to reduce their greenhouse gas emissions and adapt to the impacts of climate change. NDCs has unconditional and conditional levels of commitment

The unconditional commitments are based on a country-driven approach, meaning that each Party decides its own contribution according to its national circumstances, capabilities and capacities. The conditional commitment is dependent on international support in the form of technical and capacity building; technology transfer or acquisition; and /or outright funding.

NDCs are required to be updated every five years with more stringent targets and actions, in order to enhance the global ambition over time and reach a balance between emissions and removals by sinks in the second half of this century.

NDCs cover both mitigation and adaptation aspects of climate action, and can include measures across various sectors, such as energy, transport, agriculture forestry and other land use (AFOLU), health, water, industry, waste, infrastructure, tourism, and more.

NDCs represent politically backed commitments by countries and can also serve as a catalyst for addressing other systemic challenges, such as biodiversity loss, energy security, poverty eradication and sustainable development.



Concept

NDCs are country-specific, and they are designed to be ambitious but achievable. They should be tailored to each country's individual circumstances and capabilities.

NDCs should include measures to reduce emissions from all sectors of the economy, including energy, transportation, agriculture, and forestry. They should also include measures to adapt to the impacts of climate change, such as sea level rise, extreme weather events, and droughts.

Genesis

The concept of NDCs was first proposed in the Bali Action Plan, which was adopted by the UNFCCC in 2007. The Bali Action Plan called for countries to develop "nationally appropriate mitigation actions" (NAMAs) to reduce their greenhouse gas emissions. NAMAs were seen as a way to bridge the gap between the developed and developing countries in the lead-up to the Paris Agreement. The Paris Agreement took the concept of NAMAs and made them mandatory for all countries. NDCs are now the central pillar of the international climate regime.

Purpose

The purpose of NDCs is to reduce greenhouse gas emissions and adapt to the impacts of climate change. NDCs are also designed to build trust and cooperation between countries. By committing to ambitious NDCs, countries are showing their willingness to take action on climate change. NDCs are also a way to track progress towards the goals of the Paris Agreement. Countries are required to submit their NDCs every five years, and they are also required to report on their progress in implementing their NDCs. This reporting allows countries to learn from each other and to improve their NDCs over time.

NDCs are a critical part of the international climate regime. They are the only way to ensure that countries are taking action on climate change. NDCs are also a way to build trust and cooperation between countries. By committing to ambitious NDCs, countries are showing their willingness to take action on climate change.

What are Nationally Determined Contributions and where do they come from?

The Paris Agreement changed the face of climate action. The legally binding international treaty, which was adopted in 2015 by all 196 Parties to the UN Climate Convention in Paris, established universal global goals endorsed by all countries. Primarily, this includes ensuring global average temperature rise is held well below 2°C above pre-industrial levels and pursuing efforts to limit the increase to 1.5°C. It also includes an aim to increase the ability to adapt to climate impacts and make finance flows consistent with country needs to achieve these goals.

The Paris Agreement reflected a major change in international climate negotiations, creating a universal, country-driven approach to achieve collective climate goals, while also creating a framework for transparent monitoring and reporting of global progress.

One of the primary instruments for achieving the Paris Agreement goals is Nationally Determined Contributions (also known as NDCs). These are the national climate pledges that each Party is required to develop that articulate how they will contribute to reducing greenhouse gas (GHG) emissions and adapting to impacts.

NDCs represent short- to medium-term targets and typically include measures for both adaptation and mitigation action and are required to be updated every five years. Each update is required to be more “ambitious”, thus having more stringent targets and helping the world get closer to 1.5°C.

What can I expect to find in a country's NDC?

In their NDCs, countries provide a projected analysis of both climate risks and impacts. They also outline their plans to reduce emissions from the greenhouse gases causing climate change. NDCs specifically include countries' commitments to reducing these emissions and adapting to these climate impacts with either quantitative or qualitative targets, timelines, and a set of actions across priority sectors, such as energy, transport, agriculture, health, water, infrastructure, tourism, and much more. Most countries have also included estimated budgets for achieving their climate goals, with many developing countries indicating the need for external financial support to implement some or all of their actions when they lack the necessary domestic resources. Technology transfer and capacity-building support are also often requested by developing countries. When targets are dependent on external financial support, these are marked as “conditional” targets. The targets a country can achieve without external financial support are referred to as “unconditional”.

Do NDCs matter?

The short answer is that yes, NDCs do matter. A lot, in fact.
First, NDCs matter because they reinforce the global goals agreed under the Paris Agreement and show exactly what each country is committing to reach these goals. They show us how much each Party aims to reduce their GHG emissions, by when, and which actions they will implement to get there. Taken collectively, NDCs can also demonstrate how close (or far) the world is to meeting our collective climate goals.

Next, NDCs are significant because they represent politically supported plans for investing in crucial areas that have the potential not only to meet climate goals but also to power sustainable development. For example, 100% of NDCs supported by UNDP's Climate Promise have energy targets or policies, and 90% cover the agriculture sector. Meeting these targets then not only addresses the climate crisis but can also help meet development priorities – like access to energy or food security.

As a result, NDCs can help governments to prioritize actions across all sectors and align their policies and legislation with climate objectives. For example, both Uganda and Nigeria enacted the National Climate Change Acts in 2021, giving force of law to the Paris Agreement and their NDC. Third, NDCs are universal. They are required by all countries – both developed and developing – and have been endorsed at the highest-level of government. So, if used right, they could serve as our pathway to addressing the current crises facing the world – not just the climate crisis, but also rising energy and food prices, insecurity and instability, migration, the Covid-19 pandemic and so on.

The Paris Agreement and NDCs

NDCs are at the heart of the Paris Agreement and the achievement of its long-term goals. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. The Paris Agreement (Article 4, paragraph 2) requires each Party to prepare, communicate and maintain successive NDCs that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

What does this mean?

The Paris Agreement requests each country to outline and communicate their post-2020 climate actions, known as their NDCs. Together, these climate actions determine whether the world achieves the long-term goals of the Paris Agreement and reaches global peaking of greenhouse gas (GHG) emissions as soon as possible and undertakes rapid reductions thereafter in accordance with the best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of GHGs in the second half of this century. It is understood that the peaking of emissions will take longer for developing country Parties and that emission reductions are undertaken on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty, which are critical development priorities for many developing countries.

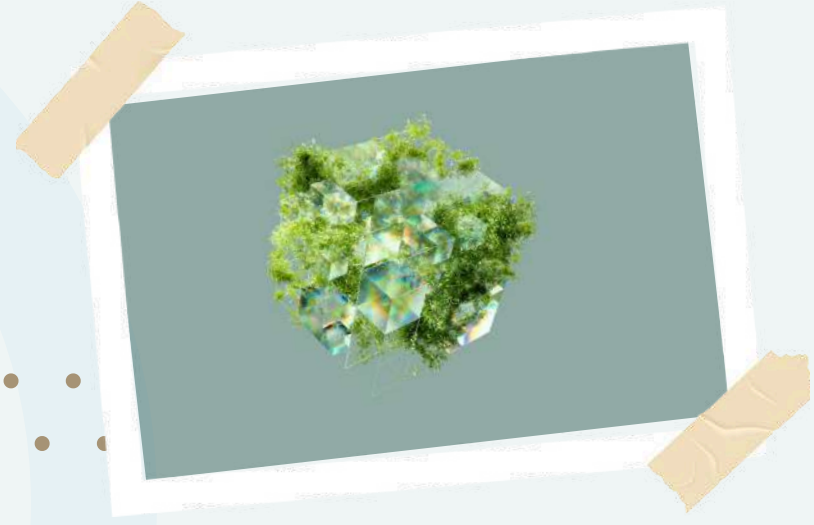
Submissions of NDCs

The Paris Agreement recognizes that the long-term goals specified in Articles 2 and 4.1 will be achieved through time and, therefore, builds on a ratcheting up of aggregate and individual ambition over time.

NDCs are submitted every five years to the UNFCCC secretariat. In order to enhance the ambition over time the Paris Agreement provide that successive NDCs will represent a progression compared to the previous NDC and reflect its highest possible ambition.

Parties are requested to submit the next round of NDCs (new NDCs or updated NDCs) by 2020 and every five years thereafter (e.g. by 2020, 2025, 2030), regardless of their respective implementation time frames.

Moreover, Parties may at any time adjust their existing nationally determined contribution with a view to enhancing their level of ambition (Article 4, paragraph 11).



Taking stock and informing the preparation of successive NDCs

Starting in 2023 and then every five years, governments will take stock of the implementation of the Agreement to assess the collective progress towards achieving the purpose of the Agreement and its long-term goals. The outcome of the global stocktake (GST) will inform the preparation of subsequent NDCs, in order to allow for increased ambition and climate action to achieve the purpose of the Paris Agreement and its long-term goals. To learn more about the GST[1].

In 2018 the COP convened a facilitative dialogue among Parties to take stock of the collective efforts of Parties in relation to progress towards the long-term and to inform the preparation of the next round of NDCs. To learn more about the Talanoa Dialogue in 2018[2].

[1] https://unfccc.int/topics/global-stocktake/global-stocktake
[2] http://unfccc.int/items/10265.php

UNIT 2: NDC COMPONENTS

Content	This unit will describe: • The different types of NDC targets and goals, such as mitigation, adaptation, and finance, and their role in achieving climate action in the following: Energy sector, Industries, Agricultural sector, Transport sector, Waste sector, Institutions, and Individuals
Objectives	At the end of this unit, participants will be able to: **i)** Explain the types of NDC targets and goals; **ii)** Understand the components: governance, mitigation, adaptation, finance, and MRV issues in NDCs; **iii)** Explore the Nationally Appropriate Mitigation Actions (NAMAs) strategies/interventions across the respective countries' NDC type covering both national and sectoral projects.
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method.
Reference materials	• Pocket Guide to NDCs • The Nature Conservancy

Session 2.1: Presentation on the different types of NDC targets and components

The facilitator will make a short 10-15 minutes presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also set the scene for further discussions in the subsequent sessions. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 2.2: Group Work

Assuming that there are 30-40 participants in the workshop, divide the participants into 5 groups (6-8 people per group). Ensure that the groups have good mix in terms of gender and type of stakeholder. Assign each group exercise as provided below. This activity will be conducted within 30 minutes. The group members will appoint a chairperson, a scribe and a rapporteur.

Group 1: How do conditional and unconditional targets differ in NDCs? What are some scenarios where conditional targets might be more appropriate?

Group 2: Can you provide examples of short-term and long-term goals commonly found in NDCs? How do these goals contribute to a country's climate action strategy?

Group 3: Can you identify some specific NDC components: governance, mitigation, adaptation, finance and MRV strategies that countries often include in their NDCs?

Group 4: What are some examples of sectoral approaches that countries take to align NDCs with their national policies and development priorities?

Group 5: How can countries ensure that NDC implementation involves meaningful engagement with various stakeholders, including the private sector and civil society?

Note: Each group will write on flip charts as clearly as possible. They will be collected at the end of the session.

Session 2.3: Plenary discussion

The groups will make 5-minute presentations of their work in session 2.2. There will be open discussions on the presentations where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

Facilitator's notes

Nationally Determined Contributions (NDCs) components typically encompass a combination of cross-cutting goals, and targets. These targets and goals include:

Mitigation Targets:

- **Emission Reduction Targets:** NDCs often include specific commitments to reduce greenhouse gas emissions, either in absolute terms or as reductions relative to a baseline year.
- **Emission Intensity Targets:** Some NDCs focus on reducing emissions per unit of economic output, promoting decoupling economic growth from emissions.
- **Carbon Neutrality or Net-Zero Targets:** Some countries aim to achieve carbon neutrality by balancing their remaining emissions with carbon removal techniques like reforestation or carbon capture and storage or utilization.
- **Renewable Energy Targets:** NDCs may set goals for increasing the share of renewable energy in the energy mix, contributing to a transition away from fossil fuels.
- **Energy Efficiency Targets:** NDCs may include commitments to improve energy efficiency in various sectors, reducing energy consumption and associated emissions.

Adaptation Targets and Goals:

- **Vulnerability Assessments:** NDCs may outline plans to assess the vulnerabilities of sectors, regions, or communities to climate impacts, identifying areas that require adaptation measures.
- **Resilience Building:** NDCs often set goals to enhance the resilience of infrastructure, ecosystems, and communities to climate-related risks such as extreme weather events, sea-level rise, and changing precipitation patterns.
- **Adaptive Capacity Enhancement:** NDCs can include goals to strengthen institutional capacity, develop early warning systems, and improve disaster preparedness and response.
- **Biodiversity and Ecosystem Protection:** Some NDCs may target the conservation and sustainable management of ecosystems to enhance their capacity to provide ecosystem services and adapt to climate change.

Finance and Support Goals:

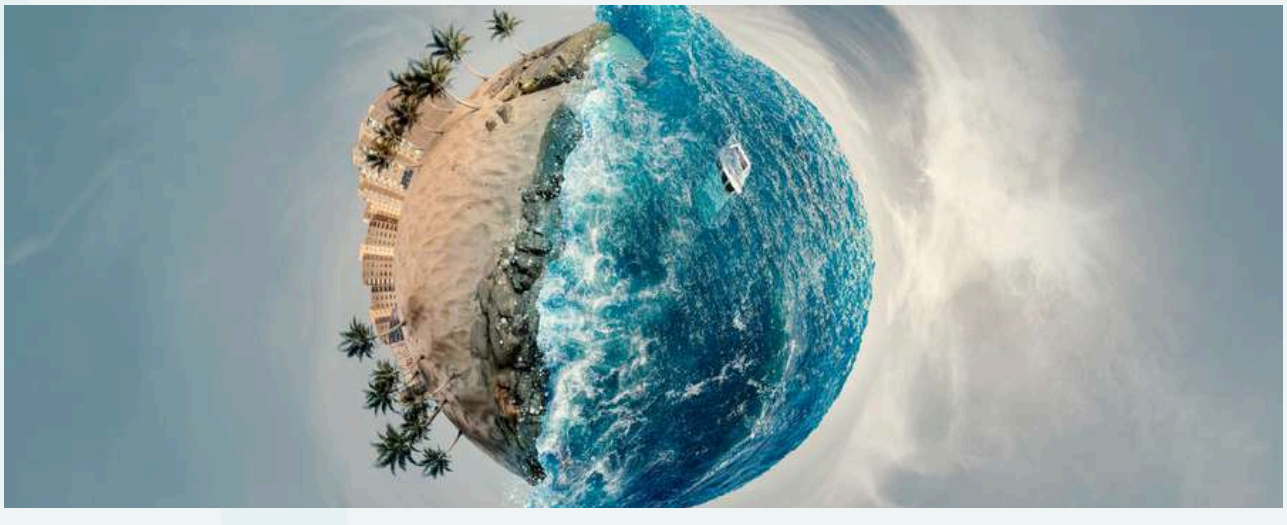
- **Climate Finance Commitments:** NDCs may include pledges to mobilize financial resources for both mitigation and adaptation efforts in developing countries.
- **Technology Transfer and Capacity Building:** NDCs can outline goals for transferring clean and sustainable technologies to developing countries, along with building their capacity to implement these technologies effectively.
- **Capacity-Building Goals:** Some NDCs focus on enhancing institutional and human capacities to plan, implement, and monitor climate-related actions.
- **Knowledge Sharing and Collaboration:** NDCs may promote collaboration between countries, stakeholders, and international organizations to share experiences, best practices, and lessons learned.

Governance Goals

- **Appropriate institutional structures:** The Governance component is concerned with the goal of putting in place NDCs appropriate institutional structures, processes and building capacity within government.
- **Drive and coordinate climate action:** The Governance component will seek to drive and coordinate climate action of the NDC type.
- **Engage key stakeholders:** The Governance component seeks to engage key stakeholders in the implementation of NDC types of the respective countries.
- **Development of legal frameworks:** This is with the goal of improving the ability to set, coordinate, and implement climate change policies.

Measurement, Reporting and Verification (MRV) goals

- **MRV of GHG emissions:** conducted at national, organisational, and/or facility level to understand an entity's emissions profile and report it in the form of an emissions inventory.
- **MRV of mitigation actions (e.g., policies and projects):** to assess their GHG effects and sustainable development (non-GHG) effects as well as to monitor their implementation. This type of MRV focuses on estimating the change in GHG emissions or other non-GHG variables.
- **MRV of support (e.g., climate finance, technology transfer, and capacity-building):** to track provision and receipt of climate support, monitor results achieved, and assess impact.



Cross-Cutting Goals:

- **Sustainable Development Integration:** Many NDCs aim to integrate climate action with broader sustainable development goals, ensuring that climate efforts contribute to poverty reduction, social equity, and economic growth.
- **Gender and Social Inclusion:** NDCs may set targets to ensure that climate action takes into account gender-specific vulnerabilities and promotes social inclusion and equity.
- **Transparency and Reporting:** NDCs often include commitments to transparently report progress on their climate actions, providing accountability and facilitating international assessment.

It's important to **note** that the specific types of targets and goals within NDCs can vary widely based on a country's unique circumstances, priorities, capacities, and development stage. NDCs serve as a country's contribution to global climate action while considering their national circumstances.

UNIT 3: NDC IMPLEMENTATION FRAMEWORKS

Content	This unit will describe: • Thedifferent approaches to implementing NDCs, including national policy and regulatory frameworks, institutional arrangements, and stakeholder engagement.
Objectives	At the end of this unit, participants will be able to: **i)** Explain the different approaches to implementing NDCs; **ii)** Understand the national policy and regulatory frameworks for NDCs implementation; **iii)** Explore institutional structures and processes in the NDC implementation and stakeholder engagements.
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method
Reference materials	• Brief on NDCs Implementation Preparedness • Is Africa Ready for NDCs Implementation? • Nationally Determined Contributions (NDCs) • https://climateactiontracker.org/ • https://www.wri.org/research/implementing-nationally-determined-contributions-ndcs

Session 3.1: Presentation on the approaches to NDC implementation

The facilitator will make a short 10-15 minutes presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also set the scene for further discussions in the subsequent sessions. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 3.2: Group Work

Assuming that there are 30-40 participants in the workshop, divide the participants into 5 groups (6-8 people per group). Ensure that the groups have a good mix in terms of gender and type of stakeholder. Assign each group exercise as provided below. This activity will be conducted within 30 minutes. The group members will appoint a chairperson, a scribe and a rapporteur.

Group 1: How does an adaptation-first approach to NDC implementation differ from a balanced approach that addresses both mitigation and adaptation? What factors might influence a country's choice?

Group 2: How can countries align their existing national policies and regulations with the goals and targets outlined in their NDCs?

Group 3: What role do legal frameworks play in ensuring that NDCs are effectively integrated into national development plans and strategies?

Group 4: How can countries establish effective institutional arrangements to oversee and coordinate NDC implementation across different ministries and agencies?

Group 5: What strategies can countries use to ensure active engagement and participation of civil society organizations, private sector entities, and other stakeholders in NDC implementation?

Note: Each group will write on flip charts as clearly as possible. They will be collected at the end of the session.

Session 3.3: Plenary discussion

The groups will make 5-minute presentations of their work in session 3.2. There will be open discussions on the presentations where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

Facilitator's notes

The are different approaches to implementing NDCs. They include through national policy and regulatory frameworks, institutional arrangements, and stakeholder engagement:

- National policy and regulatory frameworks: NDCs can be implemented through a variety of national policy and regulatory frameworks. These frameworks can include:
  - Climate change laws and regulations: These laws and regulations can set targets for emissions reduction, establish carbon pricing mechanisms, and regulate the development and use of clean energy technologies.
  - National development plans: These plans can include climate change mitigation and adaptation objectives, as well as specific measures to achieve these objectives.
  - Sectoral policies and regulations: These policies and regulations can address specific sectors of the economy, such as energy, transportation, and agriculture. They can set standards for emissions performance, promote the use of clean energy technologies, and support the development of renewable energy sources.

- Institutional arrangements: NDCs can be implemented through a variety of institutional arrangements. These arrangements can include:
  - National climate change agencies: These agencies can be responsible for developing and implementing NDCs, as well as for coordinating with other government agencies and stakeholders.
  - Climate finance institutions: These institutions can provide financial support to countries to help them implement their NDCs.
  - Research and development institutions: These institutions can conduct research on climate change mitigation and adaptation, and they can develop and disseminate new technologies.
- Stakeholder engagement: NDCs can be implemented more effectively if there is strong stakeholder engagement. Stakeholders can include businesses, civil society organizations, and the public. They can provide input on the development of NDCs, and they can help to implement NDCs at the local level.

Note: There is no one-size-fits-all approach to implementing NDCs. The best approach will vary depending on the country's circumstances and capabilities. However, all countries need to develop a comprehensive plan for implementing their NDCs. This plan should include clear goals, specific measures, and a timeline for implementation. It should also be based on sound scientific evidence, and it should be open to stakeholder engagement.

UNIT 4: MEASUREMENT, REPORTING, AND VERIFICATION (MRV) OF NDC IMPLEMENTATION

Content	This unit will describe: • The importance of MRV for tracking progress towards achieving NDC goals and targets and provide an overview of the MRV process.
Objectives	At the end of this unit, participants will be able to: **i)** Explain the MRV as an important NDC component; **ii)** Understand the MRV processes for NDCs implementation.
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method
Reference materials	https://www.worldbank.org/en/news/feature/2022/07/27/what-you-need-to-know-about-the-measurement-reporting-and-verification-mrv-of-carbon-credits

Session 4.1: Presentation on the MRV component

The facilitator will make a short 10-15 minutes presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also set the scene for further discussions in the subsequent sessions. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 4.2: Group Work

Assuming that there are 30-40 participants in the workshop, divide the participants into 5 groups (6-8 people per group). Ensure that the groups have a good mix in terms of gender and type of stakeholder. Assign each group exercise as provided below. This activity will be conducted within 30 minutes. The group members will appoint a chairperson, a scribe and a rapporteur.

Group 1: Why is Measurement, Reporting, and Verification (MRV) considered a crucial component of NDC implementation? How does it contribute to transparency and accountability?

Group 2: What are the key steps involved in the MRV process for NDC implementation? How do these steps ensure accurate and reliable data collection?

Group 3: Discuss the potential benefits of using MRV data to identify trends, gaps, and opportunities for enhancing climate action and achieving NDC targets.

Group 4: Discuss the role of MRV in enhancing transparency in your country. How does this contribute to building trust and cooperation with the international community?

Group 5: How can countries build the necessary technical and institutional capacities to effectively carry out MRV for NDCs? What role do international partnerships play in capacity building?

Note: Each group will write on flip charts as clearly as possible. They will be collected at the end of the session.

Session 4.3: Plenary discussion

The groups will make 5-minute presentations of their work in session 4.2. There will be open discussions on the presentations where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

Facilitator's notes

Measurement, reporting, and verification (MRV) is essential for tracking progress towards achieving NDC goals and targets. MRV allows countries to:

- Measure their emissions: MRV can be used to measure a country's greenhouse gas emissions from all sectors of the economy. This information is essential for tracking progress towards emissions reduction targets.
- Report their emissions: Countries are required to report their emissions to the UNFCCC every five years. This reporting allows other countries to assess the progress that each country is making towards its NDC targets.
- Verify their emissions: MRV can also be used to verify a country's emissions reports. This ensures that countries are accurately reporting their emissions and that they are not overstating their progress.

MRV is also important for ensuring the transparency and accountability of NDC implementation. By tracking progress and verifying emissions, MRV can help to ensure that countries are taking action on climate change and that they are meeting their commitments.
Here are some of the benefits of MRV for tracking progress towards achieving NDC goals and targets:

- Improved transparency: MRV can help to improve transparency by providing information on countries' emissions and their progress in implementing their NDCs. This information can be used by other countries, stakeholders, and the public to assess the performance of countries and to hold them accountable for their commitments.
- Increased accountability: MRV can help to increase accountability by providing a mechanism for verifying countries' emissions reports. This can help to ensure that countries are accurately reporting their emissions and that they are not overstating their progress.

- Enhanced policy-making: MRV can help to enhance policymaking by providing information on the effectiveness of climate change mitigation and adaptation measures. This information can be used to improve the design and implementation of policies and to ensure that they are meeting their objectives.
- Improved coordination: MRV can help to improve coordination by providing a common framework for measuring, reporting, and verifying emissions. This can help to ensure that countries are using the same data and methods and that they are able to compare their performance with each other.

Overall, MRV is an essential tool for tracking progress towards achieving NDC goals and targets. It can help to improve transparency, accountability, policymaking, and coordination. By providing information on countries' emissions and their progress in implementing their NDCs, MRV can help to ensure that countries are taking action on climate change and that they are meeting their commitments.

The MRV process consists of three steps:

- **Measurement:** This step involves measuring the amount of greenhouse gas emissions from all sectors of the economy. This can be done using a variety of methods, such as emission inventories, monitoring, and modeling.
- **Reporting:** This step involves reporting the measured emissions to the UNFCCC. Countries are required to report their emissions every five years. This reporting allows other countries to assess the progress that each country is making towards its NDC targets.
- **Verification:** This step involves verifying the reported emissions. This can be done by an independent third party, such as the UNFCCC's Technical Expert Review Body (TERB). Verification ensures that countries are accurately reporting their emissions and that they are not overstating their progress.

The MRV process is complex, and it can be challenging to implement. However, it is essential for tracking progress towards achieving NDC goals and targets. By measuring, reporting, and verifying emissions, MRV can help to ensure that countries are taking action on climate change and that they are meeting their commitments.
Here are some of the challenges that can be encountered in the MRV process:

- **Data availability:** Not all countries have the same level of data availability. This can make it difficult to measure and report emissions accurately.
- **Technical expertise:** MRV requires technical expertise that may not be available in all countries. This can make it difficult to implement MRV effectively.
- **Cost:** MRV can be expensive to implement and maintain. This can be a barrier for some countries.
- **Political will:** MRV requires political will to be implemented effectively. This can be a challenge in some countries.

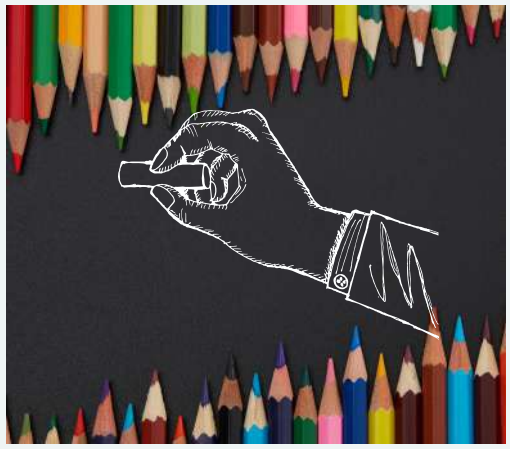
Despite these challenges, MRV is an essential tool for tracking progress towards achieving NDC goals and targets. It is important to work to overcome these challenges and to ensure that MRV is implemented effectively in all countries.

Here are some of the ways to overcome the challenges of MRV:

- **Improve data availability:** Countries can improve data availability by investing in data collection and reporting systems. They can also collaborate with other countries to share data.
- **Build technical expertise:** Countries can build technical expertise by training staff and by partnering with international organizations.
- **Reduce costs:** Countries can reduce the cost of MRV by using cost-effective methods and by sharing resources with other countries.
- **Build political will:** Countries can build political will by raising awareness of the importance of MRV and by engaging with stakeholders.

By addressing these challenges, countries can make MRV more effective and more accessible. This will help to ensure that all countries are able to track progress towards achieving their NDC goals and targets.

What is MRV and why is MRV important to mitigation efforts?



Measurement, Reporting, and Verification (MRV) refers to the multi-step process to measure the amount of greenhouse gas (GHG) emissions reduced by a specific mitigation activity, such as reducing emissions from deforestation and forest degradation, over a period of time and report these findings to an accredited third party. The third party then verifies the report so that the results can be certified, and carbon credits can be issued.

MRV seeks to prove that an activity has actually avoided or removed harmful GHG emissions so that actions can be converted into credits with monetary value. One credit equals one ton of reduced GHG emissions expressed in tons of CO2 equivalent (tCO2eq). These credits are the results that the World Bank pays for through specific results-based climate finance arrangements, like Emissions Reduction Payment Agreements (ERPAs). They are also the basic units traded in international carbon markets and used to fulfil countries' Nationally Determined Contributions (NDCs) under the Paris Agreement. MRV is the key to unlocking climate finance and showing progress on climate goals.

Paying for carbon credits can stimulate climate action and ambition - and through the World Bank's inclusive ERPA programs, benefit-sharing plans ensure the funds get to the local communities who need them most. But MRV requires careful measurement, reporting, and verification to ensure results are real before payments are made. MRV systems are complex and require multiple steps to get from emissions reduced on the ground to payments received in hand.

Paying for carbon credits can stimulate climate action and ambition - and through the World Bank's inclusive ERPA programs, benefit sharing plans ensure the funds get to the local communities who need them most.

While the carbon marketplace continues to mature, the World Bank is helping developing countries increase their experience with carbon credit transactions built on high environmental integrity and accounting standards, through inclusive programs and projects with fully integrated community participation from inception to completion. Other organizations offer similar services using other methodologies. The World Bank provides results-based climate finance to help countries generate high-quality carbon credits and maximize their value.

Can you walk us through the MRV process?

To start, every emission reduction program must determine a “baseline” or “reference level” against which performance is measured periodically. The assumptions upon which these baselines are established, and the accounting methodologies used to calculate emission reductions vary by sector and program scale. Standard-setters, such as the World Bank, define the requirements that these baselines and MRV activities must meet to ensure the highest accounting standards for the most trustworthy results.

For example, within the forestry and land-use sector, the Forest Carbon Partnership Facility (FCPF) administered by the World Bank has developed a standard for measuring forest-related emission reductions at the jurisdictional scale, covering entire provinces, regions, or states within countries. It was developed with broad partnership and community participation and is gaining traction among key carbon market players. Similarly, the Partnership for Market Implementation (PMI) program administered by the World Bank, developed an open-source MRV system that supports capturing emissions, emission reductions and finance received by each mitigation activity and tracks these at individual project, sector and national level. The system is currently deployed in Jordan, Sri Lanka and the State of Palestine.

Once project or program activities are underway, data is collected and processed to calculate emission reductions achieved against the baseline during the monitoring period. Depending on the program, data collection could entail tracking the operation of clean cookstoves, reading electricity meters on home solar power units, or surveying changes in tree cover, among other activities. Local communities can also help monitor implementation of mitigation activities, especially in hard-to-reach locations. Their involvement can help pinpoint high-performing program areas and participants to support the eventual distribution of results-based payments based on benefit-sharing plans.

Emission reductions results are then compiled into a report that is subject to third-party verification by an entity accredited per the requirements of the standard being used. Verifiers often need to sift through large volumes of data, so well-documented results that thoroughly demonstrate accuracy, transparency, and compliance with the standard can help smooth the process.

Once emission reductions are verified, the standard-setter certifies them, signalling the applicable emission reduction transaction registry to issue ERCs. In the case of the World Bank-led standards, these credits are issued and transferred to the Bank's transaction registry so buyers, including World Bank trust funds like the FCPF, can pay the country for the proven results. The Bank may also retransfer some or all of the ERCs to the country for NDC fulfilment and credit retirement. The entire MRV cycle can take a year or more to complete.

Understanding the Measurement, Reporting, and Verification (MRV) of Carbon Credits

Once project or program activities are underway, data is collected and processed to calculate emission reductions achieved against the baseline during the monitoring period. Depending on the program, data collection could entail tracking the operation of clean cookstoves, reading electricity meters on home solar power units, or surveying changes in tree cover, among other activities. Local communities can also help monitor implementation of mitigation activities, especially in hard-to-reach locations. Their involvement can help pinpoint high-performing program areas and participants to support the eventual distribution of results-based payments based on benefit-sharing plans.

It sounds quite technical. What are some of the challenges to implementing MRV?

It is, and many low-income countries new to emissions reduction transactions lack the capacity to do MRV themselves. Many rely on international firms, which can be costly and undermine sustainability and country ownership. MRV capacity building figures heavily into the grants that trust funds like the FCPF provide to countries to prepare emissions reduction programs. This up-front investment in readiness precedes ERPAs and helps to ensure their success.

For example, the World Bank and the FCPF helped Mozambique set up a robust MRV team prior to entering into an ERPA. The team is able to monitor forest cover on a regular basis and report to different fora thanks to greater funding and better staff training, remuneration, and retention assured by World Bank investment operations. It has since led Mozambique through the entire MRV process to earn its first results-based payment under its ERPA with the FCPF: US$6.4 million for 1.3 million ERCs over a 12-month period. This model will be taken forward in the new Scaling Climate Action by Lowering Emissions (SCALE)*, a new umbrella trust fund managed by the World Bank that offers results-based climate finance for emission reductions programs across the forestry, landscapes and the Blue Economy, infrastructure, fiscal and financial sectors. Innovations in MRV can help expand climate action worldwide and unleash the potential of climate finance and the carbon marketplace to combat climate change.

How is technology innovating MRV?

Digital MRV will be a game-changer! Current methods to measure, report, and verify emission reductions can be costly and time-consuming, often relying on manual operations. Digital technologies can streamline data collection, processing, and quality control in MRV processes, helping to reduce the cost and time to ERC issuance. The World Bank is helping to expand the use of smart sensors, satellites and drones, cloud computing, artificial intelligence, and blockchain encryption.

For example, the World Bank is piloting an electronic database and information management system in Uganda to support the implementation of a rural electrification program. The system will use a mobile application, pre-paid electricity meters, and a web-based application to track customer data and power consumption on over 1 million connections nationwide and automatically generate emissions reduction reports for verification.

Digital MRV systems are still complex and expensive to implement, but long-term, they will reduce the cost of generating carbon credits while increasing transparency and security. They will enable more efficient verification and the move toward real-time generation of carbon credits. Innovations in MRV can help expand climate action worldwide and unleash the potential of climate finance and the carbon marketplace to combat climate change.

UNIT 5: FINANCING NDC IMPLEMENTATION

Content	This unit will describe: • The different financing mechanisms available for NDC implementation, including public and private sector finance, climate finance, and carbon pricing.
Objectives	At the end of this unit, participants will be able to: **i)** Explain the different financing mechanisms available for NDC implementation; **ii)** Understand the public and private sector finance, climate finance, and carbon pricing.
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method
Reference materials	• https://www.worldbank.org/en/news/feature/2022/07/27/what-you-need-to-know-about-the-measurement-reporting-and-verification-mrv-of-carbon-credits • https://www.sei.org/wp-content/uploads/2018/05/private-finance-for-sub-saharan-africa-1.pdf

Session 5.1: Presentation on the NDC financing mechanisms

The facilitator will make a short 10-15 minutes presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also set the scene for further discussions in the subsequent sessions. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 5.2: Group Work

Assuming that there are 30-40 participants in the workshop, divide the participants into 5 groups (6-8 people per group). Ensure that the groups have good mix in terms of gender and type of stakeholder. Assign each group exercises as provided below. This activity will be conducted within 30 minutes. The group members will appoint a chairperson, a scribe, and a rapporteur.

Group 1: What are the various financing mechanisms that countries can tap into for supporting their NDC implementation efforts? How do these mechanisms vary in terms of accessibility and effectiveness?

Group 2: How can countries align their NDC financing strategies with their national development priorities? What considerations should they take into account?

Group 3: Discuss the role of public sector financing in supporting NDC implementation. What are some examples of direct public investments in climate-related projects and initiatives?

Group 4: What is climate finance, and how does it contribute to funding climate-related activities, including NDC implementation? Can you provide examples of international climate finance mechanisms?

Group 5: What are some common challenges that your country is facing in securing adequate financing for their NDCs? How can these challenges be addressed to ensure sustainable funding?

Note: Each group will write on flip charts as clearly as possible. They will be collected at the end of the session.

Session 5.3: Plenary discussion

The groups will make 5-minute presentations of their work in session 5.2. There will be open discussions on the presentations where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

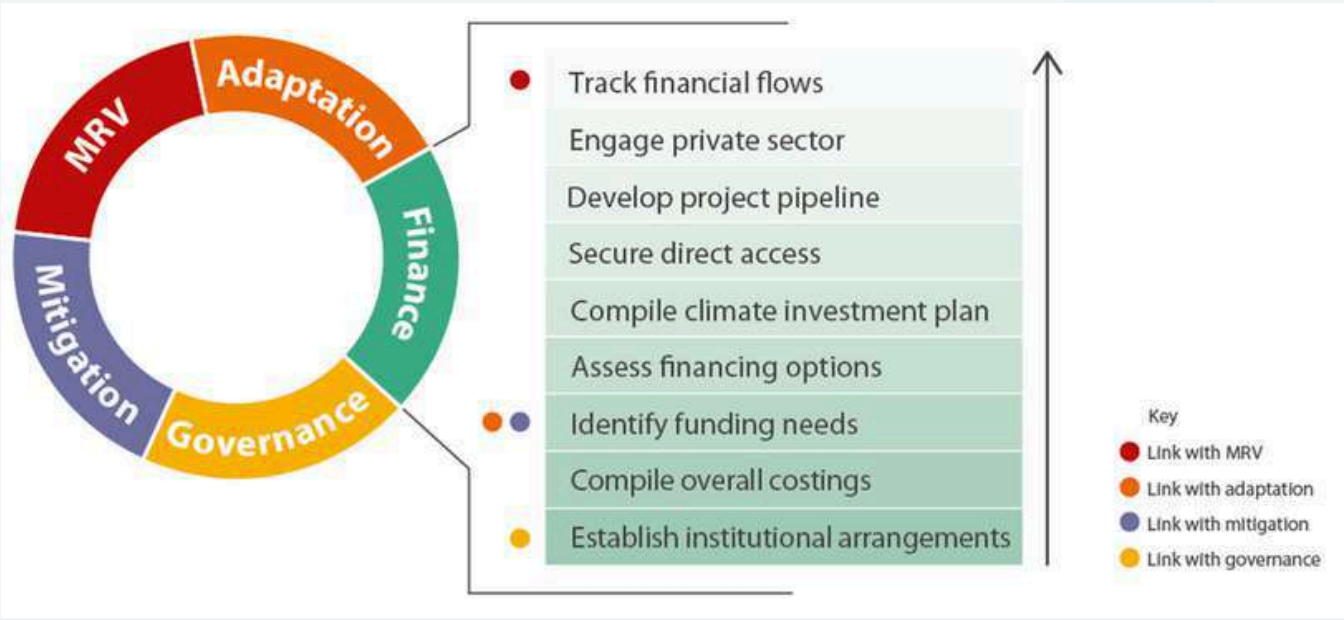
Facilitator's notes

Finance is critical for the implementation of the mitigation and adaptation actions set out in countries' NDCs. International public financing sources, such as the Green Climate Fund, will not be able to provide the large-scale investment needed on their own; hence, financing sources such as the private sector and domestic fiscal budgets will be required. Strengthening finance from domestic and external sources will also support the implementation of the SDGs, in particular those on ending poverty (SDG 1), economic growth (SDG 8) and reducing inequalities (SDG 10). Similarly, many of the INDCs submitted included conditions for their full implementation, such as additional or enhanced international support in the form of finance, technology transfer, technical assistance, and capacity-building. Improving access to public and private financing sources is therefore a high priority.

Many countries are considering the development of a country climate investment plan. These set out the programme of investments required to implement their NDC and include a strategy for meeting those financing needs (noting that most NDCs do not include sufficient detail to represent investment strategies). In order to access finance, countries need clear project concepts as a minimum, and financing propositions need to be developed. Furthermore, specific institutional capacities may need to be demonstrated, and the enabling environment for policy implementation and private sector engagement may need to be enhanced (being mindful to address not only financial barriers but also relevant technical and institutional barriers).

The specific funding criteria and access requirements differ between financing sources, but there are common underlying principles that countries can address to increase financial flows and improve their readiness for financing. Many climate funds have specific requirements (e.g. relating to gender, fiduciary criteria and/or environmental and social safeguards), as well as seeking demonstrated synergies between climate projects and national development priorities.

When reviewing this Manual, countries may find it useful to refer to the mitigation and adaptation Manuals to consider the financing needs of individual mitigation and adaptation actions; the MRV Manual with regards to tracking climate finance flows; and the governance Manual with regards to the institutional structures and processes needed for climate finance.



Source (https://ndc-guide.cdkn.org/book/)
Figure 1: Key activities in the Finance Manual

The specific funding criteria and access requirements differ between financing sources, but there are common underlying principles that countries can address to increase financial flows and improve their readiness for financing. Many climate funds have specific requirements (e.g. relating to gender, fiduciary criteria and/or environmental and social safeguards), as well as seeking demonstrated synergies between climate projects and national development priorities.

Finance and the Paris Agreement

> *Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention. – Article 9.1*

Finance is primarily covered by Article 9 of the Paris Agreement, which re-establishes the precedent that developed countries should take the lead for mobilising finance (Article 9.3). Details on the finance pledged and provided will be biennially communicated by developed countries (Articles 9.5 and 9.7). Developing countries can also contribute to finance but this obligation is voluntary (Article 9.2). The provision of financial resources should aim to achieve a balance between adaptation and mitigation (Article 9.4). Note that Article 6 of the Paris Agreement covers the use of market mechanisms, which may also provide a source of finance for mitigation and adaptation actions.

Key activity 1: Review of the current climate finance landscape

1a. Review the NDC

Identify any international support requirements that may have been specified in the NDC, including financial, capacity-building, technology transfer or other types of international support.

1b. Review the current status of climate finance strategies

Climate finance strategies could include: any existing climate investment plans or policies that may be in place, whether at the national, subnational or sectoral level; work programmes established with any specific bilateral or multilateral funders; Clean Development Mechanismproject pipelines; and Nationally Appropriate Mitigation Action (NAMA) project pipelines or work programmes.

Key activity 2: Establish institutional arrangements for the oversight and coordination of climate finance activities

2a Identify and delineate key roles in climate finance within the country

- Consider internal government focal points with important bilateral and multilateral funders for adaptation and mitigation projects.
- Consider establishing a cross-ministerial working group to enhance coordination on climate finance issues between these parties.

2b Identify a team within government to lead national climate finance coordination

This could be within the ministries of finance or environment, planning commissions, or the prime minister's office. It should ideally be a gender-balanced team and have the mandate to:

- Strategically plan and coordinate the access, mobilisation, disbursement and tracking of climate finance across the country
- Establish and maintain communication with government focal points and with bilateral and multilateral funders
- Ensure coordinated engagement with funders via these government focal points
- Disseminate information to country stakeholders regarding funding criteria and the operational requirements and procedures of major funders.

2c. Mainstream climate change into national budgeting processes

- This will ensure NDC implementation priorities are reflected in budgets, helping existing policies, programmes, and project pipelines to be 'green'.
- This can potentially increase domestic, as well as international, fiscal support for climate change initiatives.

Key activity 3: Compile an overall costing for the NDC

3a Undertake a desk review to identify and cost the main sub-actions within each mitigation and adaptation action

- Costing each action involves identifying the cost for sub-actions, including upfront capital costs (e.g. infrastructure), ongoing maintenance costs, capacity-building or training, and the human resources needed to implement the action.
- A desk review could include an assessment of similar actions previously completed within the country, at national and/or subnational levels, as well as reviewing how similar countries may have costed such actions.
- Note that costs for some actions may change over time; it may be necessary to reconsider cost estimates as new information comes to light. For example, costs may decrease over time due to falling technology costs or barriers being removed by relevant policies.

3b Check these desk-based estimates with relevant national experts and stakeholders

- Checking the results of the desk-based review with relevant experts can provide additional confidence that the costings are roughly correct and that no important elements have been overlooked.
- Relevant national experts could include government ministries, departments and agencies that are expected to lead the implementation of the actions, have been involved in implementing similar actions, or have experience in costing similar actions (e.g. planning or finance departments). They could also be private sector investors or academics.

Key activity 4: Identify funding gaps and needs

4a Scope and prioritise the actions to be undertaken during NDC implementation

Scoping and prioritising the actions; in summary, this will likely involve:

- Identifying the range of actions that could be undertaken to implement the mitigation and adaptation components of the NDC
- Prioritising these actions, in close consultation with key country stakeholders
- Undertaking a broad barriers analysis, and other analyses, to assess the enabling environment for each action (e.g. domestic policy support frameworks, institutional barriers) and understand the mix of financial and non-financial measures required to successfully implement each action.

4b Assess the funding status of each priority NDC action

- Identify existing and projected domestic budgetary support for each priority NDC action, for example through the development of Climate Public Expenditure and Institutional Reviews or other frameworks.
- Consider available domestic budgetary support, as well as any expected bilateral and/or multilateral support and private sector finance.
- Identify which actions and sub-actions have yet to be fully funded.

4c Identify the level and type of support needed to address each funding gap

- Assess the amount and type of support required to close each funding gap (e.g. capacity-building, technical assistance, finance) and the likely type of funding source (e.g. government, bilateral and multilateral funders and private sector).

Key activity 5: Assess public and private financing options

5a Assess the potential for further domestic fiscal support for each action

- Review existing development policies, programmes and infrastructure project pipelines to assess the potential for 'greening' these activities, for example, extending or amending these to include NDC priorities and screening the climate risks or mitigation potential associated with these projects.
- Identify opportunities to mainstream climate change priorities into the national budgetary and infrastructure planning process. This can indirectly increase domestic and international fiscal support for climate change initiatives. See the governance Manual for more details regarding integrating NDC implementation across government.

- Additional engagement with key departments may be required, including planning, finance, and sectors involved with NDC implementation, at both the national and subnational levels.
- Consider what information on the co-benefits of climate action might be useful to these departments, to obtain buy-in and support.

5b *Assess the eligibility of each action against bilateral and multilateral funding sources*

- Consider the country's history of accessing funds from bilateral and multilateral sources to identify potential funders with whom the country already has a relationship. These could potentially be approached in the short-to-medium term regarding financing for priority NDC activities.
- Identify any new sources of multilateral and bilateral finance that could potentially support the actions.
- Assess the eligibility of each action against the funding criteria for existing and potential new bilateral and multilateral funding sources.
- Identify the best method for the country to access each funding source, for example, direct access (this is relevant for a limited number of funds; indirect access, or NAMA development.

5c *Assess options for private sector investment for each action*

- Assess the suitability and potential attractiveness of each action to the private sector. This can be done by determining if the action is likely to generate a predictable future revenue stream that can cover the costs and generate profit (e.g. electricity sales to consumers where there is large unmet energy demand), or if the government may consider directly paying private sector investors (e.g. a public-private partnerships where assets are built and the government pays investors for delivering services).
- If the annual net cash flows will be insufficient, a range of financial and non-financial interventions can be considered.
- If investors are hesitant to make significant investments in climate-related projects, consider whether smaller, more manageable projects can be financed initially (e.g. demonstration or pilot projects), thereby improving the financial track record for the sector or technology, which should increase market interest.

Key activity 6: Develop a country climate investment plan

- A country climate investment plan sets out the programme of investments required to implement each priority action in the NDC, as well as a strategy for meeting those financing needs. Examples of sector-specific climate investment plans can be found on the Climate Investment Funds website.
- Developing the country investment plan will involve consolidating the analysis undertaken across activities 3, 4 and 5 within this Manual, and making decisions regarding which funding options are most appropriate for each action.
- When developing the climate investment plan, it may be useful to review how peer countries deliver and finance similar projects and what lessons can be learned.
- The country climate investment plan should build on and strengthen any existing climate investment plans in place, as well as drawing on Clean Development Mechanism or NAMA project pipelines and country programmes that have been developed for specific bilateral or multilateral funders.

Key activity 7: Secure direct access to international climate funds for national and subnational institutions

- A limited number of international funds allow direct access, including the Green Climate Fund, the Adaptation Fund, the Global Environment Fund and the European Commission Directorate-General for International Cooperation and Development.
- Direct access involves national or subnational institutions directly receiving finance from funding sources and disbursing them to relevant projects, i.e. without an international agency managing and overseeing the funds as an intermediary.
- Each fund has different accreditation requirements for institutions seeking direct access, including demonstrating capacities such as financial and administrative management, monitoring and evaluation (M&E), project management, gender mainstreaming and equity, and environmental and social management.
- Countries that are interested in direct access may find it useful to initially screen a selection of national and subnational institutions against the accreditation requirements for the relevant fund or funds, to identify potential eligible institutions and the resources required to fully meet the accreditation requirements.
- For countries with institutions that are already accredited (depending on the funding source, these may be referred to as ‘accredited entities, ‘implementing entities’ or similar), the next step may be to develop a project pipeline and put forward funding proposals so that finance can be accessed.
- Note that the institutions that will be seeking to access financing sources may not necessarily be the same as those leading the implementation of the actions.

Key activity 8: Develop a project pipeline and financing propositions that can be put forward to different financing sources

8a *Build technical and relational capacities within government ministries to develop a project pipeline*

Capacities that can support the development of a project pipeline include:

- The ability to undertake financial and technology needs assessments across the country's priority sectors, to assess where efforts need to be focused and ensure projects are robust
- Technical understanding of available technologies to ensure the most suitable and effective technology is being used
- Coordination with relevant ministries to develop joint project proposals and navigate ministerial priorities
- Financial modelling and cost-benefit analysis expertise to determine the financial feasibility of the proposed projects and ensure projects stay within the country's budget
- Writing skills to develop business cases and project concept notes, to ensure the most effective outcomes for implemented projects
- The capability to design and select climate change projects and programmes.

8b *Develop funding proposals that can be shared with bilateral and multilateral funders*

- Many bilateral and multilateral financing sources allow for the submission of project concept notes, so that initial feedback can be received on the eligibility and viability of the project, before preparing a full funding proposal.
- Requirements for full funding proposals will vary between funders, with typical requirements including information about financing requirements (e.g. co-financing to be provided by the country), as well as a detailed description of project activities and the anticipated results.
- When preparing funding proposals, be mindful of any concept note or proposal templates provided by the funder, as well as the eligibility criteria.
- Some funders may provide support for the development of project concepts and proposals.
- It may be useful to meet with the funder to receive early feedback on project ideas, and how they fit with the funder's selection criteria.

8c Develop funding proposals that can be shared with potential private sector financing sources

- It may be useful to meet private sector investors to receive early feedback on project ideas, for example through roundtable discussions and consultations.

- The private sector will typically seek funding proposals that address the following concerns:

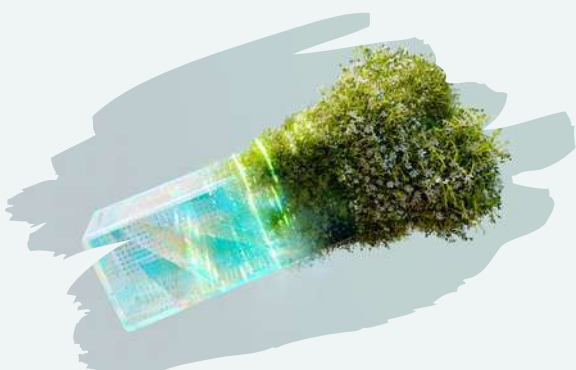
  - Is the technical solution well thought through?
  - Does the technology have a track record?
  - Are there the skills available within or outside the country to develop the project?
  - What remedies are available if projects are poorly built or operating costs are higher than expected (e.g. enforceable performance bonds from construction companies)?
  - Where will revenues to pay financiers come from (e.g. sales to customers, government support, concessions)?
  - What reassurance can be given that the revenues will be achieved (e.g. additional government support, government-backed guarantees and credit ratings, minimum price agreements and realistic demand forecasts)?

Key activity 9: Increase private sector engagement and overcome barriers to investment

9a Assess and enhance the domestic investment environment

- Identify the barriers to private sector investment across relevant priority actions for NDC implementation. These can include perceived or actual risks (e.g. credit risks, policy or political risks, technology risks), the scale of investment opportunity available (e.g. transaction costs are too high in relation to the size of the opportunity), or returns are too low (e.g. due to interest rates and taxes).

- Identify the range of financial and non-financial interventions needed to address barriers to private sector investment across relevant priority actions for NDC implementation.



- Financial interventions include: risk-mitigation instruments (e.g. policy risk insurance, government or donor-backed partial guarantees); concessionary loans (e.g. to improve the financial viability of projects); grants (e.g. to improve the financial viability of projects or climate-risk assessments and energy-efficiency audits); aggregation instruments (e.g. to increase the scale of investment opportunity); tax breaks (e.g. for low-carbon or climate-resilient technologies); feed-in tariffs (e.g. to incentivise renewable energy); and public–private partnerships.
- Non-financial interventions include: strengthening the rule of law (e.g. so that investors can seek compensation if energy companies do not honour offtake agreements); developing 'matchmaking' services (e.g. between project developers and financiers); capacity-building for the financial sector (e.g. to address perceived risks associated with low-carbon or climate-resilient technologies); and knowledge transfer (e.g. writing step-by-step guides for developing projects, preparing legal templates for power purchase agreements, rental agreements and loan agreements).

Develop public–private financing structures and launch pilot projects to showcase viable business models and attract further climate investment.

Review the approaches used by peer countries for public–private financing and consider whether they could be applicable.

Strengthen the capacity of relevant departments to identify and develop financially viable opportunities for the private sector

Capacities that can support government officials to identify and develop financially viable opportunities for the private sector include:

- understanding how projects similar to the actions being considered are normally financed in the country, to help build financial models for individual projects; this includes understanding: what loan sizes are common in the country? How long do most loans last for? In which currency are most loans? What interest rates are normally charged? Is there a bond market or an active equity market? Do banks from outside a country lend to a project?
- knowledge of financial and investment terminology (e.g. payback periods, internal rates of return, equity returns, pre-tax and pre-finance project returns)
- understanding of the constraints and requirements of investors (e.g. banks typically need to see sufficient net cash flows to comfortably pay loans)
- knowledge of the range of financial and non-financial mechanisms available to increase the financial viability of projects for the private sector, and to reduce risks (e.g. the risk of cost overruns, revenue streams being lower than anticipated), as well as different ways to call for private sector involvement in projects (e.g. funding competitions, bidding for projects)
- skills and experience in conducting commercial negotiations with the private sector.

9c *Increase private sector engagement in national climate policies, strategies, coordinating committees and national financing bodies*

- Promote greater public–private dialogue on climate finance through regular forums and institutions. These can include sectoral associations, investor platforms and public consultations.
- Increasing public–private dialogue can lead to an increased understanding of climate change opportunities within the private sector, as well as an increased appreciation of investment barriers and how these can be addressed.
- Involve the private sector in the design and implementation of national climate change policies and projects, to better understand investment barriers and jointly explore opportunities.

Key activity 10: Design and implement a climate finance MRV system

10a *Identify climate-related spending across all relevant finance flows*

- Building on any finance MRV systems that are in place (e.g. for Biennial Update Reports), develop standard methodologies and key performance indicators for a climate finance MRV system, including agreeing a definition – with all relevant stakeholders – of what constitutes climate change-related activities.
- Identify all the relevant departments and institutions that are likely to receive climate finance, and put in place data-sharing agreements (e.g. memoranda of understanding) between relevant departments and institutions, and the climate finance tracking team.

10b *Track and report climate-related spending across all relevant finance flows*

- Introduce regular reporting on climate activities for government ministries and implementing entities, using standard key performance indicators to ensure data comparability.
- Develop a central tracking system that allows users to input data using standard templates.
- Process and analyse data on a regular basis, delivering findings in a report that can be used to guide the strategic thinking of the team leading national climate finance coordination.

10c *Expand and improve the MRV of climate finance*

- Refine the MRV system based on the lessons learned and extend the scope of funding tracked to all donors and all relevant institutions over a number of years.
- If Biennial Update Reports have presented data on international climate finance received, assess and revise definitions to ensure they match the NDC targets and ensure the list of institutions involved is complete.
- Assess gaps and close them, step by step, over a longer time frame.

Summarised notes

There are various financing mechanisms available to support the implementation of NDCs, which are central to achieving climate goals. These mechanisms involve a mix of public and private sector finance, climate-specific funding, and innovative strategies like carbon pricing. Here are some key financing mechanisms:

1.Public Sector Finance:

- Domestic Budget Allocation: Governments allocate funds from their national budgets to support NDC implementation, which can cover activities like policy development, capacity building, and infrastructure projects.
- Climate Funds: Governments may establish dedicated funds, such as national climate funds, to mobilize resources for climate-related projects and programs.
- Official Development Assistance (ODA): Developed countries provide financial support to developing countries through ODA to help them implement their NDCs, build resilience, and mitigate climate impacts.

2.Private Sector Finance:

- Domestic and Foreign Direct Investment: Private companies and investors contribute to NDC implementation by investing in renewable energy projects, sustainable agriculture, energy-efficient technologies, and other climate-related initiatives.
- Green Bonds: Companies and governments issue green bonds to raise funds specifically for environmentally beneficial projects, aligning with NDC goals.
- Public-Private Partnerships (PPPs): Collaboration between the public and private sectors can facilitate funding for large-scale infrastructure projects, promoting sustainable development in line with NDCs.

3.Climate Finance:

- Multilateral Climate Funds: International financial institutions, like the Green Climate Fund (GCF) and the Global Environment Facility (GEF), provide grants and concessional loans to support climate adaptation and mitigation projects in developing countries.
- Bilateral Climate Finance: Developed countries provide climate-specific financial support directly to developing countries through bilateral agreements and partnerships.
- Climate-Related Investments: Institutional investors and development banks invest in projects that align with climate objectives, such as renewable energy, sustainable agriculture, and low-carbon technologies.

4.Carbon Pricing

- Carbon Tax: Governments impose a tax on carbon emissions to incentivize emission reductions and raise revenue for climate initiatives.
- Emissions Trading Systems (ETS): Cap-and-trade systems allow companies to buy and sell emission allowances, encouraging emission reductions and creating a market for carbon trading.
- Results-Based Payments: Climate finance mechanisms may offer payments to countries or projects based on verified emissions reductions or other climate outcomes.

5.Innovative Financing Strategies

- Debt-for-Nature Swaps: Countries with significant biodiversity may exchange a portion of their debt for investments in conservation and sustainable development.
- Microfinance and Community-Based Financing: Small-scale, community-level financing mechanisms can support local climate initiatives and enhance resilience in vulnerable communities.

6.Private Sector Partnerships

- Corporate Climate Initiatives: Companies collaborate with governments and organizations to fund and implement climate projects that align with their sustainability goals.
- Philanthropic Contributions: Foundations and philanthropic organizations provide grants and donations to support NDC-aligned projects and programs.

7.Blended Finance

- Combining Public and Private Finance: Blended finance models combine public funding with private investment to leverage resources for NDC implementation.

8.Technology Transfer and Innovation Support

- Technology Financing: Funding mechanisms are established to facilitate the transfer of climate-friendly technologies to developing countries.

UNIT 6: TRACKING NDC IMPLEMENTATION USING NDC INDEX TOOL

Content	This unit will describe: • The NDC tracking tools and indexes and demonstrate how it is used..
Objectives	At the end of this unit, participants will be able to: **i)** i)Use the NDC tracking tools to measure progress in NDC implementation; ii)Generate the NDC index for their respective countries using collected data; Utilise the NDC indexes to provide policy advice and advocacy.
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method
Reference materials	• https://atpsnet.org/wp-content/uploads/2019/07/NDCs-Implementation-Report-final.pdf

Session 6.1: Presentation on the NDC tracking tools

The facilitator will make a presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also provide the procedure for tracking and measuring NDCs. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 6.2: Plenary discussion

There will be open discussions on the presentation where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

Facilitator's notes

Overview of NDC Implementation and Tracking Progress\

The Paris Agreement established an ETF of action and support under which Parties are required to provide "information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4" (Article 13.7b). All Parties, except least developed country Parties and small island developing States, shall submit information reported under Article 13.7 "no less frequently than on a biennial basis" (paragraph 90, Decision 1/CP.21).

The Paris Agreement's proposed system of tracking progress consists of a series of different informational elements to be provided by Parties. Articles 4, 6 and 13 of the Agreement broadly outline what these informational elements consist of and the ongoing negotiations of the so-called "Paris rulebook" will further define these elements. Article 4 mandates Parties to prepare and communicate an NDC every 5 years (Articles 4.2 and 4.9) against which progress will be tracked. Along with their NDCs, Parties will also communicate information for clarity, transparency and understanding (CTU, Article 4.8) of the NDC. Article 4 also requires Parties to account for their NDCs (Article 4.13).

Parties are to account for internationally transferred mitigation outcomes (ITMOs, Article 6) during the processes of accounting for and tracking progress towards NDCs. Article 13 negotiations will develop MPGs for a reporting and review system under the ETF through which Parties will provide information for tracking progress.

These Articles are each a core element of the system to track progress and there are significant linkages between them. Identifying substantive and procedural linkages between these Articles can help improve the coherence of a system for tracking progress.

Information needs for tracking progress towards NDCs Implementation

Tracking progress under Article 13 towards Parties' NDCs requires information on the implementation and achievement of the NDC (e.g. indicators comparing current or projected and reference emissions) and information that facilitates the understanding of the NDC target (e.g. scope and coverage of the NDC). Both quantitative (e.g. indicators such as percentage reduction of base year emissions) and qualitative (e.g. information on implementation status of policies and measures (PaMs)) information are needed to allow a clear understanding of progress towards the NDCs. Annex I Parties have experience reporting quantitative and qualitative information to track progress towards mitigation targets under the Kyoto Protocol and the Convention.

Quantitative information reported under this framework includes a summary of inventory information, mitigation actions and their effects and emissions projections to 2020 and 2030. Qualitative information includes a description of PaMs and information on changes in Parties' domestic institutional arrangements. The majority of Non-Annex I Parties however have limited experience of reporting in this area, which may affect their reporting on tracking progress towards NDCs under the ETF.

One key difference between tracking progress under the Paris Agreement and the Kyoto Protocol is that under the Paris Agreement "Parties will be tracking progress towards different types of mitigation targets in NDCs. The diversity of targets under the Paris Agreement means that different sets of information will be needed to track progress towards each specific type of target. For example, information needed to describe an economy-wide absolute GHG target will include levels of GHG emissions and removals at base year (Tier 1). Information describing intensity targets for GHG emissions per unit of GDP or per capita will include, besides information on GHG emissions and removals, information on the relevant socio-economic indicator (Tier 2).

Current textual proposals for the MPGs recognize certain informational elements as relevant for tracking progress. These include a description of the NDC; indicators comparing e.g. current to reference emissions levels; NDC accounting information; Article 6 information; PaMs; and GHG projections resulting from implemented policies. GHG inventories are mandated to be reported under Article 13.7a and are fundamental to accounting for NDCs and for tracking progress towards GHG emissions targets. Information on GHG emissions and removals in inventories are also key to inform GHG-based indicators and GHG projections.

Annex I countries currently report on GHG inventories annually and provide GHG data for year X-2 at year X. Reporting on GHG inventories by Non-Annex I Parties has been irregular, and the vintage of inventory data relatively old. For example, out of 94 Non-Annex I Parties having submitted inventory data in NCs or BURs published in 2015 or later, 2% reported data on year X-2 and 46% on year X-6 or older. As GHG inventories are the basis for tracking progress towards most NDC targets (80% of all Parties submitted GHG targets in their NDC), it would be important for the MPGs to consider how this time-lag issue could be resolved.

Some NDCs lack transparent and clear information that allows for quantification of targets by a third party. Possible reasons for this insufficient information include the lack of clear guidance and technical difficulties in providing information (e.g. lack of in-country data). Information describing the NDC is similar in substance and linked to information needed for CTU of NDCs (Article 4). Information for CTU will be communicated along with the NDC and at any other time the NDC is updated. The NDC description information is to be reported throughout the implementation period of the NDC as part of the biennial reporting on its progress. This information describing the NDC would re-iterate, complement or update CTU information and consistency across these sets of information will be important. For example, any updates made to e.g. the methodologies and assumptions during the NDC period (and reported under the ETF) would need to be captured within the next round of CTU information.

Given the diversity of NDC mitigation targets types, a range of different types of indicators are needed to track progress towards those targets. As indicators can be very diverse, it is crucial that they are accompanied by transparent information on definitions, data sources, methodologies, and assumptions. In order to facilitate the use of indicators, MPGs could identify broad categories of indicators for different types of targets. Parties would then define which indicators within these categories they will use to track progress towards their NDCs. For example, Parties with GHG mitigation targets need to select indicators that are emissions-based while targets formulated as reductions from business-as-usual (BAU) would need to provide BAU reference levels.

It is however currently less clear how to account for non-GHG targets in countries' NDCs, and several options are available. For example, accounting for a renewable energy policy could involve reporting on the implementation status of the policy to account for the Gigawatt hours (GWh) of renewable capacity installed, and/or the GHG impact of the renewable energy policy. The accounting tables need to accommodate these different NDC targets while facilitating comparability as this will facilitate aggregation for collective stocktaking purposes. Accounting guidance needs to consider that in order to add and subtract the flows in the tables they need to be expressed in the same unit of measurement.

The textual proposals for the MPGs are also considering that Parties report on mitigation actions and PaMs when tracking progress. Parties could report on mitigation actions in different ways. First, it could report on the implementation status of adopted policies. Secondly, an assessment of PaMs could quantify the emission reductions associated with policies that are being or will be implemented. Estimating the impact of PaMs could be a useful way to evaluate the implemented policies and to plan new climate policies. There can be some uncertainty in quantifying the effects of policies involving e.g. methodological challenges to calculate or estimate the impacts of one or more groups of policies.

Parties have experience in reporting on policies and measures and, to a lesser extent, on their impacts on current and projected GHG emissions. Annex I Parties have reported on domestic measures and GHG projections "with measures" in their BRs. This information was reported as contextual information on progress towards implementation of mitigation targets. Non-Annex I Parties have experience reporting on policies and measures in their National Communications (NCs) and their BURs, and some experience in reporting on emissions projections, although the number of Parties that do so is limited. MPGs could ask those Parties that have provided such information to continue to do so under the ETF to avoid backsliding.

Definition and Delineating Scope of NDCs Implementation Index

The detailed measures and activities for Definition, and Delineating Scoping of NDC implementation are set out in five components that guide NDCs Implementation namely: Governance; Mitigation; Adaptation; MRV and; Finance.

I *The Governance component is concerned withputting in place the appropriate institutional structures and processes to drive and coordinate climate action and to engage key stakeholders.*

II *Mitigation component addresses long-term mitigation strategies that are aimed at reducing GHG emissions through national and sector plans that are aligned with development priorities.*

III *The adaptation component is concerned with integrated adaptation planning that helps to build long-term resilience to the impacts of climate change by mainstreaming adaptation into national and sectoral plans.*

IV *MRV also known as transparency comprises systems to track implementation and apply the lessons learned, thus enhancing understanding about which actions work best, and why.*

V *Finally, finance component comprises a climate finance framework that is designed to match a country's needs against funding streams and include strategies to access the funding streams.*

As an integral part of definition and delineating of scoping the NDC implementation index that includes measures/activities that are used and dimensions that are covered, we present the NDCs Implementation Gap Analysis as adopted from Ricardo/CDKN (2016) and summarized in Table 1.

Table 1: NDCs Implementation Gap Analysis

NDC Implementation Component	Activity
Governance	1. Review current institutional arrangements 2. Establish an NDC implementation coordination team 3. Set up institutional arrangements 4. Build capacity within government 5. Engage external stakeholders 6. Develop legal frameworks
Mitigation	1. Review the current mitigation policy landscape 2. Set up institutional arrangements for the coordination and oversight of mitigation activities 3. Analyze the national mitigation potential to identify priority sectors and mitigation options 4. Conduct a detailed appraisal of priority actions for key sectors 5. Design mitigation policies 6. Access financing for mitigation actions 7. Implement mitigation policies 8. Design and implement a mitigation MRV system 9. Prepare for future NDCs
Adaptation	1. Review the current adaptation policy landscape 2. Undertake groundwork and governance 3. Undertake preparatory work for adaptation plans 4. Access financing for adaptation actions 5. Implement policies, projects and programmes 6. Monitor and report on progress and the effectiveness of adaptation actions

NDC Implementation Component	Activity
Finance	1. Review the climate finance landscape 2. Establish institutional arrangements for the oversight and coordination of climate finance activities 3. Compile an overall costing for the NDC 4. Identify funding gaps and needs 5. Assess public and private financing options and develop a country climate investment plan 6. Develop a country climate investment plan 7. Secure direct access to international climate funds for national and subnational institutions 8. Develop a project pipeline and financing propositions that can be put forward to different financing sources 9. Increase private sector engagement and overcome barriers to investment 10. Design and implement a climate finance MRV system
Transparency/MRV (Measuring, Reporting and Verification)	1. Review current MRV activities 2. Establish institutional arrangements for the oversight and coordination of MRV activities 3. Assess data gaps and needs 4. Design the MRV system for mitigation, adaptation and finance 5. Establish data management processes 6. Build MRV capacity 7. Improve the MRV system over time

Source: Ricardo/CDKN (2016)

NDC Implementation Indicators

Despite availability of enormous volume of information on the number and type of NDC implementation indicators, from the more conceptual to the more detailed and technical, there are a number of gaps as regards the NDC implementation indicators. Based on the review of NDC documentation, as well as in-country experience, the development of additional knowledge and capacity development material, in the form of tools and guidance, is recommended under each of the five components of NDCs implementation as outlined below:

a) Governance

Under the Governance component, the likely qualitative and quantitative NDCs implementation indicators to be encountered include:

- Integration of NDCs into national and sub-national planning
- User-friendly tools and info-graphic material - especially to track emission reductions
- Terms of reference for NDC focal point and implementing stakeholders
- Development of a comprehensive stakeholder engagement plan
- Innovative stakeholder engagement tools, such as prototyping
- Innovative awareness tools, such as videos, documentaries, social media platforms - to move away from guidance only for practitioners and to open more widely to the public
- Development of messages for different audiences (from government to private and financial sectors, to schools and communities)
- Incentives for data sharing across implementing entities
- Coordination, integration, capacity building, stakeholder engagement, and development of legal frameworks
- Stakeholder mapping and Institutional responsibilities
- Link with NDC coordination
- Communication and outreach strategy

b) Mitigation

Under the Mitigation component, the likely qualitative and quantitative NDCs implementation indicators to be encountered include:

- Integration of NDCs with BURs and National Communications
- Development of low carbon emissions pathways (in a consultative manner)
- Appraisal of policy options and cost-benefit analysis tools
- Integration of actions into NDC and sectoral action plans
- Analyze mitigation potential and priority sectors
- Design mitigation policies
- Start preparation of future NDCs

c) Financing

Under the Finance component, the likely qualitative and quantitative NDCs implementation indicators to be encountered include:

- Costing of NDC actions (both direct and indirect or cross-cutting)
- Updated sources of finance mapping, especially for mitigation
- Breaking down of NDC information for the private and financial sector
- Repository of information on accessing finance
- Blended finance tools - with varying degrees of concessionality
- Ways to incentivize the private sector to participate in policy development, without creating conflicts of interest
- Development of a climate investment plan and project pipeline
- Review climate finance landscape and assess costs and funding gaps
- Develop a climate investment plan and project pipeline
- Enhance private sector engagement
- Enhance private sector engagement
- Finance needs
- Finance sources
- Projects in pipeline
- NDC implementation framework
- Sector-level MRV framework

d) MRV/Transparency

Under the MRV/Transparency component, the likely qualitative and quantitative NDCs implementation indicators to be encountered include:

- Two-way linkages to UNFCCC and COP websites and documentation
- Easy to use toolkit for Paris Rulebook (and perhaps tailor-made tools to serve specific needs like those of Africa), and considerations to keep in mind for the next negotiations.
- Development of an MRV/transparency system (adaptation, mitigation, finance) and improvement over time
- Establishment of institutional arrangements
- Assessing data gaps and needs
- Designing sectoral MRV system
- Establishing data management process
- Capacity building

e) Adaptation

Under the Adaptation component, the likely qualitative and quantitative NDCs implementation indicators to be encountered include:

- Creation of NAP-NDC linkages
- Design a (cross-)sectoral M&E system
- Establish coordination of finance activities
- Vulnerability and impacts
- Adaptation measures

The Award and Weighing Criteria for the NDC Indicators

The award and weighing criteria for the NDCs implementation indicators was guided by a number of underlying factors which among others include:

- The hierarchy of the indicators in the development of sectoral or sub-sectoral GHG emissions over time including tracking sectoral level progress in cutting down emissions.
- The extent to which the indicator is able to inform the overall direction of travels within high-level sectors and subsectors that are most aligned with the NDC sectors, as they are defined by IPCC Common Reporting Format (CRF) Framework in the national Greenhouse Gas Intensity (GHGI).
- The role of the indicator as a sectoral driver of GHG emissions in terms of serving as the emissions factors and/or source of activity data used to calculate emissions.
- The role of the indicators in illustrating the progress and effectiveness of certain mitigation measures or groups of mitigation measures that are included in each NDC sector action plan.
- Role of the indicator as source of institutional responsibilities for oversight of implementation and monitoring of progress including:
  - Mapping of existing institutional mandates
  - Determination of optimal alignment of institutions with implementation objectives, including links for finance and planning ministries
  - Devolution of implementation responsibilities to line ministries and agencies
  - Gap analysis of institutional capacity requirements
  - Integration of sector level information collection and reporting processes
- Role of the indicator in knowledge development and dissemination on Paris Agreement implications and benefits that include:
  - Understanding of long-term sector implications of the Paris Agreement
  - Analysis of potential benefits, related to sector development objectives and the key interests/objectives of influential stakeholders
  - Identification of links between mitigation targets and SDGs

- Role of the indicator in influencing planning for ambition through strategy alignment and long-term decarbonization planning that include:
  - Complete alignment of sector level strategy with climate policy strategy
  - Stock-take and integration of subnational and non-state actions
  - Determination of long-term full de-carbonization targets for the sector
  - Translation of sector level targets to sub-sector targets

- Role of the indicator in analysis of potential for ambition raising that include:
  - Analysis of regional best practice policies
  - Targets for sub-sectors not yet covered in climate strategy

- Role of the indicator in collation of all information and targets into a target-based roadmap

- Role of the indicator in investment planning for resource allocation and determination of support needs including evaluation of investment requirements for preferred Measures that include evaluation of:

  a) Private sector investment capacity;
  b) Public finance requirements;
  c) International support requirements.

- Role of the indicator in medium-term investment planning to align non-private capital requirements with existing national and multilateral financing rhythm

- Role of the indicator in analysis of persisting barriers to NDCs implementation that include (financial, political, institutional, cultural)

- Role of the indicator in identification of project concepts that address the barriers for NDCs implementation and/or international support (e.g. NAMAs)

Identifying the Target Groups and Sources of Data for NDC Implementation Index

The target groups for NDCs implementation index are the supply side which comprises the government, while the demand side comprises the private sector, civil society, service providers, and other stakeholders such as development partners that are involved in training and capacity building. The major sources of data are energy, AFOLU, Industrial Process and Products Use (IPPU), waste and transport. Tracking the NDCs performance indicators horizontally and vertically in a linear form will be implemented in the context of the roles and actions by the government policymakers (national, sub-national, and local levels); financial support and investment in tracking NDCs performance indicators; technology and innovations in the realm of tracking NDCs performance indicators; roles and activities of stakeholders involved in tracking the various NDCs performance indicators and the role of Civil Society as well as other Non-State Actors (NSAs).

Interpretation of the NDCs Implementation Scores

The five NDC components (Governance, MRV, Climate Financing, Adaptation and Mitigation) were assigned weights on the scale of 1% to 100%. Each of the indicators provided for each NDC component were scored between 1-5 based on the achievement compared to the baseline and the target set in the NDC implementation framework/plan. Using available literature and data collected, the 5 NDC Implementation components were weighted as provided in Table 2 below:

Table 2: Assigned Weights for NDC Implementation Components

NDC Implementation Parameter	Weighted /Maximum Score (%)	Justification
Governance	30	Policies, Strategies, Legislations, Programmes and Projects for NDCs Implementation already in place in the countries; Governance should receive the highest weight due to its foundational role in ensuring that the other components function effectively. It acts as the backbone of the entire NDC framework, ensuring that policies are not only created but also effectively implemented and monitored.

MRV	25	All the 8 study countries have submitted at least one National Communication (NC) and 2 countries submitted Biennial Update Reports (BURs) MRV is key to the implementation of respective countries NDCs; MRV systems are essential for tracking progress, ensuring transparency, and holding parties accountable. Effective governance ensures that MRV systems are robust, accurate, and transparent.
Mitigation	20	Mitigation actions have informed the content of the National Communications. Mitigation actions are also key to the attainment of NDCs Implementation Targets. All countries are supposed to develop their Nationally Appropriate Mitigation Actions (NAMAs); Mitigation is critical as it directly addresses the reduction of greenhouse gas emissions, which is the primary goal of the Paris Agreement. Effective governance can enhance the implementation of mitigation strategies.
Adaptation	15	Adaptation is a sympathy measure based on services to vulnerable group of people to help them build resilience to the impact of climate change. This explains why it is a priority intervention for most African Countries because of immediate impact to the most vulnerable; Adaptation is essential for building resilience to the impacts of climate change. Effective governance ensures that adaptation measures are integrated into national planning and executed efficiently.

Finance	10	Although there is international commitment for climate financing by Annex I countries, the flow of the resources to Annex II countries is not always direct but through other development partners, hence impact not directly felt. ; Finance is crucial for enabling mitigation and adaptation actions. However, without strong governance, financial resources might not be allocated or utilized effectively.

Based on the country-specific outcomes of the analysis of the influences of activities/actions associated with each of the five macro-level indicators/components on NDCs Implementation, an award and weighting criteria for the indicators was developed. Based on the criteria and the justification articulated hereof, Governance was allocated a weighting of 30%' MRVs 25%; Mitigation 20%; Adaptation 15%, and; Finance 10%. There is enough justification based on the literature encountered during the country-specific analyses for the higher weighting figure of 30% allocated to Governance because the potency of NDCs implementation is a function of first and foremost the strong institutional, regulatory, and legal frameworks. Private investors for instance, cannot be attracted to invest in various projects in any country in absence of legal and regulatory frameworks to back and protect their investments and other associated interests. All the eight study countries had developed and were at varying stages of operationalizing various climate-related policies, strategies, and legislations.

MRVs have been allocated weighting of 25% because they are mandatory in development and submission of NCs and BURs that preclude submission of NDCs. All countries that are signatory to Paris Agreement are thus, expected to be MRVs compliant - they must be involved in tracking progress in their GHG inventory. Apart from providing a clear line of sight towards achieving GHG emissions reduction, MRVs also seeks to guide adaptation actions towards mitigating the adverse impacts of climate change.

MRV has three important components and processes entailed in their implementation which include: GHGI; NAMAs, and; Support (Funding, Technology Acquisition, and Training/Capacity Building). Mitigations have been allocated weighting of 20% because reducing emissions is one of the yardstick measures of adherence to NDCs. All countries are expected to develop NAMAs in order to qualify for participation in the multi-billion-dollar business models expected therefrom. There is an already established annual NAMAs calls by UNFCCC, hence reducing emissions is critical and all countries are expected to reduce their emissions conditionally and un-conditionally in respective percentages presented in their preceding NDCs. Adaptations have been allocated a weighting of 15% because measures for coping with adverse effects of the vagaries of climate change are key to sustainability of climate resilience systems. At present there are no regular/annual Nationally Appropriate Adaptation Actions (NAAAs) calls from UNFCCC. However, various countries have developed their National Adaptation Plans (NAPs).

Climate Financing has been allocated a weighting of 10% because both indirect and direct funding is required for operationalization of climate-related policies, strategies, programmes, plans, and legislation. However, despite the huge commitments for climate financing from mainly Annex I countries[1] and other bilateral and multilateral donors, there is limited direct access to climate finances by most of the study countries. Most of the finances are accessed through third-party agencies such as GEF and UN organizations with resultant minimal direct impacts on the ground among the targeted countries. For instance, most of these third-party agencies come with their own technical support teams, which constrains local capacity building in climate-related issues. The funding through these third-party agencies have been constant or declining and as such not sustainable in addressing climate related issues, which points to the need for domestically generated resources in addressing climate-related matters. However, due to perennial financial constraints faced by most of the Sub-Saharan African countries, such domestically generated financial resources are generally never adequate for effective support to implementation of identified climate interventions as part of NDCs implementation. The country-specific analyses also helped to develop a guide on presentation and interpretation of scores and findings including generating of the ultimate NDCs Implementation Index as presented in Appendix II.

Analysis and Visualization of NDCs Implementation Index

The analysis and visualization of the NDCs implementation index with a view to guide policy direction was achieved in two steps. The first step involved detailed elaboration of the country-specific status with regard to achieving the NDC targets as regards Governance, Climate Financing, MRV, Mitigation and Adaptation Components of NDC implementation activities as captured and summarized in section 5.3. The outcome of this step provided the information that guided the rating of the achievements of desired targets in lieu of the identified component-specific indicators in each of the 8 study countries. The second step involved use of the averaged indicator ratings and component weightings in the development of NDC implementation Indices.

Table 3 provides the scale of rating for the indicators and the description of each rating based on the progress of achieving the set targets for each of the indicators while Table 4 provides the meaning/interpretation of the total average score/Index for the 5 combined components of the NDCs.

Table 2: Assigned Weights for NDC Implementation Components

Scale of Rating	Description
1- 0-15% achievement of target	Very Poor
2- >15%-35% achievement of target	Poor
3- >35%- 50% achievement of target	Unsatisfactory
4- >50%- 75% achievement of target	Satisfactory
5- >75%- >100% achievement of target	Outstanding

Table 4: Total Score (Index) per country and its description in relation to NDC implementation

Index Rating (Total Score)	Description of Index (Total Score)
Below 30 Index	Poor
> 30 to 50 Index	Unsatisfactory
> 50 to 75 Index	Satisfactory
> 75 Index	Outstanding

UNIT 7: COUNTRY RATING AND GENERATION OF NDC INDEXES FOR THE DIFFERENT COMPONENTS

Content	This unit will describe: • The process of using NDC tracking tools to generate indexes for informed decisions for policy and practice in NDC implementation.
Objectives	At the end of this unit, participants will be able to: i) Generate the NDC index for their respective countries using collected data; ii) Utilise the NDC indexes to provide policy advice and advocacy.
Method of training	Participatory training/facilitation methodologies, lectures, group discussions, case studies etc.
Training material	Flip charts, notebooks and pens, marker pens, white board, white board markers
Classroom setup	This will depend on the facilitator and the methodology adopted
Duration	90 mins
Evaluation	The facilitator to decide the most appropriate evaluation method
Reference materials	• https://atpsnet.org/wp-content/uploads/2019/07/NDCs-Implementation-Report-final.pdf

Session 7.1: Presentation on the generation of NDC indexes

The facilitator will make a short 10-15 minutes presentation introducing the unit and outlining the objectives of the unit and the expected outcomes. The presentation will also set the scene for further discussions in the subsequent sessions. Key issues regarding this unit will be pointed out by the facilitator while the participants will also make inputs into the discussion.

Session 7.2: Group Work

Divide the participants in the workshop into 5 groups. Ensure that the groups have a good mix in terms of gender and type of stakeholder. Assign each group exercise as provided below. This activity will be conducted within 30 minutes. The group members will appoint a chairperson, a scribe and a rapporteur.

Come up with arbitrary figures representing your country for each of the indicators of the 5 NDC components and rate the performance against the set targets. Come up with the respective rating for each component as well as the overall rating for your country.

Each country represented by 6 people will come up with case studies in their country where different stakeholders are doing exemplary work in climate change governance, mitigation, adaptation, financing and MRV. The case studies will clearly show the best practices, challenges, and opportunities.

Note: Each group will write on flip charts as clearly as possible. They will be collected at the end of the session.

Session 7.3: Plenary discussion

The work in session 7.2 will be presented through 5-minute presentations. There will be open discussions on the presentations where all participants will make inputs guided by the facilitator. This session will take approximately 45 minutes.

See Annex I for the rating table and scale.

ANNEXES

Annex I: NDC Implementation Index and Tracking tool

	Major Indicators	Evidence/Support Documents	Country Target (As in NDC or National Policies)	Evidence of the Achievement/Means of verification (Justification)	% Achievement	Rating (x) Score for each indicator on a 5 point scale {l=Very Poor &	Weight (y)	Weighted rating (z) z=xy	Average Rating
1	**Governance**								**30**
1.1	Number of institutional arrangements reviewed and restructured for climate action	Official reports or minutes from restructuring meetings, organizational charts before and after restructuring, government circulars or memos documenting the changes				5	5.00	25.00	
1.2	Number of multi-sectoral coordination meetings held by the NDC team annually	Meeting agendas, minutes, attendance records, reports on outcomes and action points from meetings				5	5.00	25.00	
1.3	Number of operational climate action institutions established	Official gazette notifications, legal documents establishing the institutions, operational reports, organizational charts, and annual reports				5	5.00	25.00	
1.4	Percentage of government officials trained in	Training reports, post-training surveys, testimonials,				5	5.00	25.00	

	climate governance who report applying new skills in their roles	performance evaluation reports, and records of implemented projects							
1.5	Number of stakeholder engagement activities conducted annually with documented outcomes	Engagement session reports, participant lists, stakeholder feedback forms, summaries of outcomes, and media reports on stakeholder events				5	5.00	25.00	
1.6	Number of NDC-related legal instruments developed, passed, and enforced	Copies of enacted laws, regulations, or policies, legislative records, enforcement agency reports, and official government publications				5	5.00	25.00	
	Sub Total Score						**30.00**	**150.00**	
2	**Measurement, Reporting and Verification (MRV)**								**25**
2.1	Timeliness and completeness of BUR and BTR submissions according to UNFCCC deadlines	Submission confirmation from UNFCCC, copies of BUR and BTR, correspondence with UNFCCC, and review feedback from UNFCCC				5	3.57	17.86	

2.2	Number of MRV institutions fully operational with assigned roles and responsibilities	Organizational charters, terms of reference, operational guidelines, staff lists, and activity reports from MRV institutions				5	3.57	17.86	
2.3	Number of data gap assessments conducted and recommendations implemented	Data gap assessment reports, implementation plans, progress reports on recommendations, and follow-up assessment reports				5	3.57	17.86	
2.4	Number of data management protocols established and used across MRV institutions	Official data management protocols, training materials, implementation reports, and compliance audit reports				5	3.57	17.86	
2.5	Number of technology needs assessments completed and prioritized for implementation	Technology needs assessment reports, prioritization criteria documents, and implementation planning reports				5	3.57	17.86	
2.6	Number of MRV personnel certified annually through capacity-building programs	Certificates of completion, training attendance records, certification exam results, and post-training evaluation reports				5	3.57	17.86	
2.7	Percentage improvement in	MRV audit reports, before-and-after				5	3.57	17.86	

	data accuracy and reporting timeliness as per MRV system audits	comparison studies, data quality assessment reports, and timeliness statistics							
	Sub Total Score						**25.00**	**125.00**	
3	**Mitigation**								**20**
3.1	Percentage of existing mitigation policies reviewed and updated	Policy review reports, updated policy documents, government gazette notices, and stakeholder consultation records				5	**2.22**	11.11	
3.2	Number of functional coordination mechanisms for mitigation actions established	Coordination mechanism charters, operational guidelines, meeting records, and coordination outcome reports				5	**2.22**	11.11	
3.3	Percentage of national mitigation potential analyzed and integrated into sectoral plans	Sectoral mitigation potential assessment reports, sectoral plans, policy briefs, and integration workshop reports				5	**2.22**	11.11	
3.4	Percentage of mitigation actions tracked and reported through	MRV system reports, database extracts, tracking dashboards, audit reports, and				5	**2.22**	11.11	

	the national MRV system	summary statistics on mitigation actions							
3.5	Percentage of mitigation actions appraised and ready for implementation	Appraisal reports, feasibility studies, cost-benefit analyses, and project implementation plans				5	**2.22**	11.11	
3.6	Number of mitigation policies designed and aligned with national targets	Draft and final policy documents, alignment reports, consultation workshop reports, and policy endorsement letters				5	**2.22**	11.11	
3.7	Amount of funding secured for mitigation actions as a percentage of the total needed	Financial agreements, funding pledges, bank statements, grant award letters, and financing gap analysis reports				5	**2.22**	11.11	
3.8	Percentage of mitigation policies fully implemented and contributing to GHG emissions reduction	Implementation progress reports, GHG inventory updates, emissions reduction reports, and policy impact assessments				5	**2.22**	11.11	
3.9	State and level of national preparedness for future NDCs	National Strategy Documents; Documentation of established institutional arrangements, such as inter-ministerial committees or				5	**2.22**	11.11	

		coordination bodies; Readiness Assessment Reports.							
	Sub Total Score						**20.00**	**100.00**	
4	**Adaptation**								**15**
4.1	Number of adaptation policies reviewed and integrated into national plans	Policy review and integration reports, national adaptation plans, official government publications, and policy briefs				5	**2.50**	12.50	
4.2	Percentage of climate risk assessments completed in priority sectors	Climate risk assessment reports, sectoral risk profiles, risk mitigation strategies, and workshop reports				5	2.50	12.50	
4.3	Number of adaptation actions implemented, with measurable benefits	Project implementation reports, monitoring and evaluation reports, beneficiary feedback, and impact assessment studies				5	2.50	12.50	
4.4	Number of personnel trained in climate adaptation strategies, with follow-up	Training records, certificates, follow-up assessment reports, case studies of applied strategies, and				5	**2.50**	12.50	

	assessments of skill application	adaptation project reports							
4.5	Vulnerability assessments conducted and completed in the various prioritized areas	Vulnerability assessment reports for the key areas identified				5	2.50	12.50	
4.6	Percentage funds allocated and utilized for adaptation projects in the country	Financial budgets and reports				5	2.50	12.50	
	Sub Total Score						**15.00**	**75.00**	
5	**Finance and Technology Transfer**								**10**
5.1	Total climate finance mobilized as a percentage of the required funding for NDC implementation	Financial reports, funding agreements, grant award letters, bank statements, and NDC implementation budgets				5	1.00	5.00	
5.2	Number of climate finance governance structures	Governance structure charters, operational guidelines, staffing records, and financial management reports				5	1.00	5.00	

	established and operational								
5.3	Percentage of climate finance tracked and reported, with audit outcomes	Financial tracking reports, audit reports, compliance reports, and summary financial statements				5	1.00	5.00	
5.4	Level of development of Country Climate Investment Plan	Drafts and final versions of the Climate Investment Plan; Consultation meeting minutes and reports; Stakeholder feedback and integration reports; Endorsement letters or approval documents from relevant authorities; Implementation roadmaps and timelines				5	1.00	5.00	
5.5	Number of innovation hubs or programs established to support climate technology	Program charters, hub establishment reports, funding agreements, operational reports, and success stories or case studies				5	1.00	5.00	
5.6	Number of technology needs assessments completed and prioritized for implementation	Technology needs assessment reports, prioritization criteria documents, and implementation planning reports				5	1.00	5.00	

5.7	Number of technology transfers facilitated, with adoption rates by recipient sectors	Technology transfer agreements; adoption rate surveys; implementation reports; and sectoral technology adoption case studies				5	1.00	5.00	
5.8	Level of official effort in negotiating and accessing climate finances	Records of negotiations with international financial institutions (e.g., meeting minutes, emails, agreements); Official reports on climate finance mobilization efforts; Government communications or policy briefs on climate finance strategies; Documentation of applications submitted for climate finance (e.g., Green Climate Fund, Adaptation Fund); Agreements or memoranda of understanding (MoUs) with funding entities; Progress reports on accessed climate finance and fund disbursement records				5	1.00	5.00	

5.9	No. of bankable project pipelines and financing propositions developed	Project pipeline documentation, including project descriptions, objectives, and expected outcomes; Feasibility studies and financial viability assessments; Business plans and financing proposals; Investor presentations and pitch decks; Funding applications and submission records; Letters of interest or commitment from potential financiers				5	1.00	5.00	
5.1	No. of private sector players involved in climate financing in the country	Lists and records of private sector participants in climate finance initiatives; Memoranda of understanding {MoUs) or partnership agreements with private sector entities; Financial reports showing private sector contributions to climate projects; Participation records in climate finance workshops, forums, or consultations; Case				5	1.00	5.00	

		studies or success stories of private sector involvement in climate finance; Reports on public-private partnerships (PPPs) for climate action							
	Sub Total Score						**10.00**	**50.00**	
	Total Score [A+B+C+D+E] (Index)								**100**

Key

Scale of Rating	Description
1- 0-15% achievement of target	Very Poor
2- >15%-35% achievement of target	Poor
3- >35%- 50% achievement of target	Average
4- >50%- 75% achievement of target	Satisfactory
5- >75%- >100% achievement of target	Outstanding

Index Rating (Total Score)	Description of Index (Total Score)
Below 30 Index	Poor
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> 50 to 75 Index	Satisfactory
> 75 Index	Outstanding

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