REGIONAL PACIFIC NDC HUB

Regional Pacific Nationally Determined Contribution Hub

Pacific Regional Workshop on ETF and Peer-to-Peer Learning

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Structure of the NDC Hub

14 PACIFIC ISLAND COUNTRIES

DONORS

AUSTRALIA

NEW ZEALAND
FOREIGN AFFAIRS & TRADE
Aid Programme

UKaid
from the British people
Transforming Energy Access

Co-funded by the European Union

german cooperation

NDC HUB

REGIONAL PACIFIC NDC HUB

PARTNERS
NDC HUB IMPLEMENTATION UNIT

Pacific Community
Communauté du Pacifique

SPREP
Secretariat of the Pacific Regional Environment Programme

GGGI

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

IN CONTRIBUTION
NDC PARTNERSHIP

Strategic Objectives under the NDC Hub's Long-Term Strategy 2030

REGIONAL PACIFIC NDC HUB

» **Improved NDC Planning, Policy, Strategy, and Legislation**

» **Strengthened Enabling Environment for NDC Implementation**

» **Accelerated NDC Action and Project/Program Implementation**

» **Enhanced NDC Measurement, Reporting, and Verification and Transparency of Climate Action**

Tracking of NDC Actions

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- Indicators
- Assessment of mitigation impacts
- Linking NDC tracking and GHG inventories
- Basis of NDC action tracking

PICs in the Pacific Ocean

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PICs – indicators

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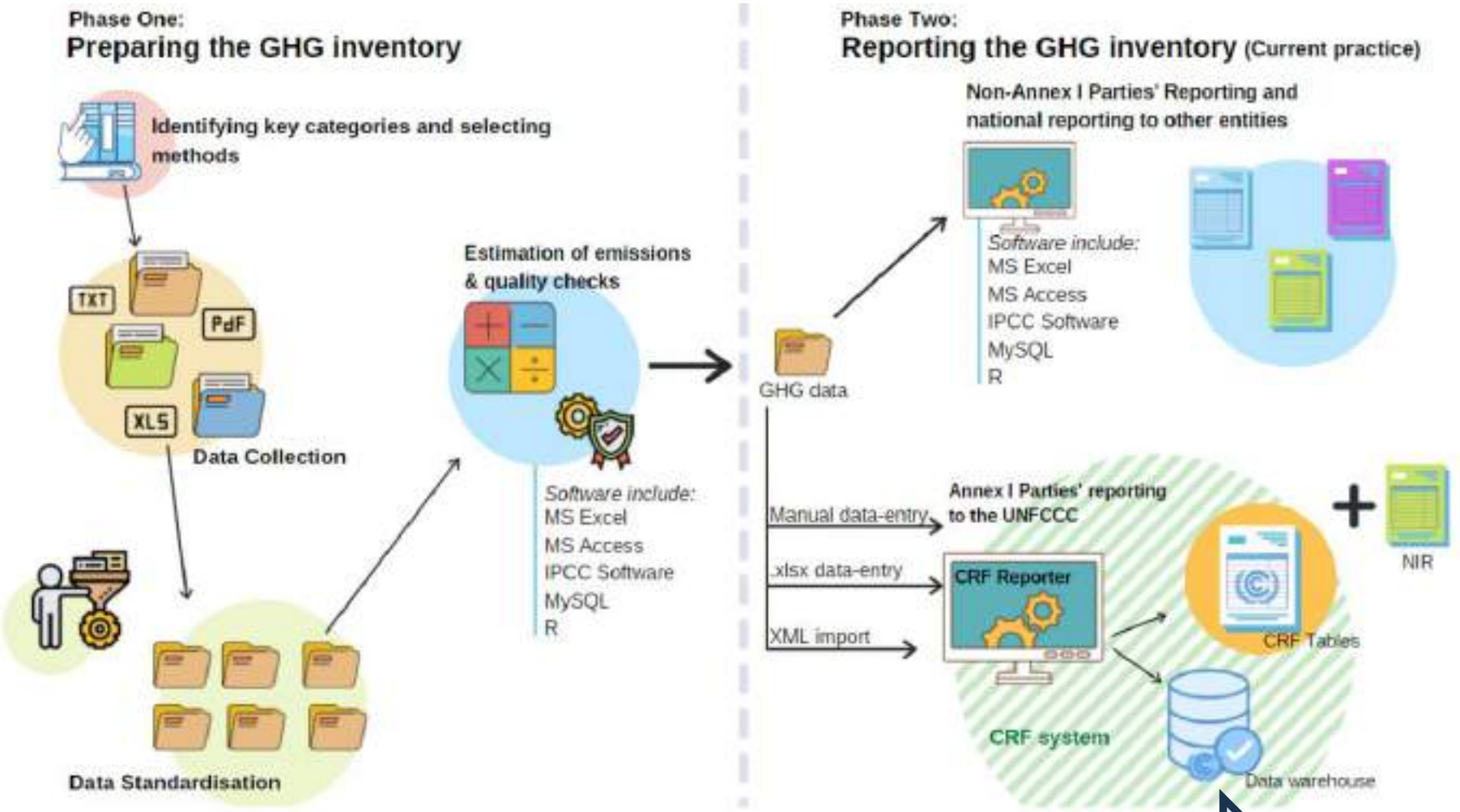
Pacific Sub-region	Country	Land Area (sq. km)*	Sea Area/ EEZ (sq. km)*	Island Type*	Popula-tion*	GDP in 2019 (US$ bil-lions)**	GDP per Capita in 2019 (current US$)***	Carbon dioxide Emissions (kilotonnes in 2016)****	Carbon dioxide Emissions (metric tonnes per Capita in 2016)***	Total Green-house Gas Emissions (kilotonnes of CO2e); 2012 or most recent year***	% of electricity generat-ed using renewables; 2018 or most recent year****
Melanesia	Fiji	18,272	1,290,000	High island with a few minor atolls	894,961	5.5	6,175.9	2,046.2	2.3	2,258.0	60%
	Papua New Guinea	462,840	3,120,000	High island with a few small atolls	8,934,475	25.0	2,829.2	5,078.8	0.9	11087 (2016)	62%
	Solomon Islands	28,370	1,340,000	High island with a few atolls	712,071	1.4	2,373.6	183.4	0.3	4,591.0	10%
	Vanuatu	12,190	680,000	High island with a few small atolls	294,688	0.9	3,115.4	113.7	0.5	446.0	6%
Micronesia	Federated States of Micronesia	701	2,980,000	High islands & atolls	105,503	0.4	3568.3 (2018)	124.7	1.3	58 (1996)	5%
	Kiribati	811	3,550,000	Predominantly atolls	118,744	0.2	1,655.1	66.0	0.6	53 (2009)	17%
	Nauru	21	320,000	Raised coral island	11,690	0.1	9,397.0	40.3	3.7	19 (2000)	2%
	Palau	444	629,000	High islands & atolls	17,930	0.3	14,902.0	216.4	12.6	248(2005)	2%
	Republic of the Marshall Islands	181	2,131,000	Atolls	54,590	0.2	3788.2 (2018)	135.7	2.5	5 (1989)	2%
Polynesia	Cook Islands	237	1,830,000	High islands & atolls	17,434	0.4	24,913.0	60.0	4.0	73(2014)	26%
	Niue	259	390,000	Raised coral Atoll	1,562	0	18,757	5	1	11.45 (2009)	0
	Samoa	2,935	120,000	High islands	198,646	0.9	4,324.0	198.0	1.3	356.0	42%
	Tonga	650	700,000	High island with a few small atolls	99,780	0.5	4,903.2	106.3	1.3	155 (2011)	10%
	Tuvalu	26	900,000	Atolls	10,580	0.1	4,059.0	11.0	1.0	5.0	23%

Status of climate reporting in the Pacific

Country	BTR Status	NDC Status	NC Status	BUR Status
Melanesia				
Fiji	Plan in Jun 2025	NDC 2019 (NDC3.0 in 2025)	NC3 2020	BUR1 2024 (to be submitted)
Papua New Guines	Plan in Jun 2025	NDC 2020 (NDC 3.0 in 2025)	NC2 2015	BUR2 2022
Solomon Islands	Plan in Dec 2024	Updated NDC 2021	NC3 2024	BUR1 under review 2024
Vanuatu	Submitted on 20 Feb 2025	NDC 2022 (NDC 3.0 in 2025)	NC3 2021	BUR1 2021
Micronesia				
FSM	Plan by Dec 2024	Updated NDC 2022	NC3 2023 (BUR1 2023)	BUR1 2023 (with NC3 2023)
Kiribati	Planning	NDC 2023	NC2 2013	
Nauru	Initial consideration	Updated NDC 2021	Draft NC3 Dec 2024	
Palau	Plan by Dec 2024	Draft Updated NDC 2024	NC2 2019	
RMI		NDC 2025	NC2 2015	
Polynesia				
Cook Islands	Plan by Dec 2024	Draft NDC 2022 (NDC 1.0	NC3 2020 BTR with NC4	
Niue		Updated NDC 2024 (to be re-submitted)	NC2 2016	
Samoa	Initial consideration	NDC 3.0 2025 (NDC 2.0 2021)	NC2 2010	BUR1 2024
Tonga	Initial consideration	NDC 3.0 2025 (NDC 2.0 2020)	NC3 2020	
Tuvalu	Draft BTR, under review	Updated NDC 2023	NC2 2018	

Current reporting practice and future pathways



Digitalization? Are we ready with tools and resources?

ETF Reporting Tool – CTFs

- Generates the common tabular formats (CTFs) for the electronic reporting of the information necessary to track progress made in implementing and achieving nationally determined contributions (NDCs) under Article 4 of the Paris Agreement, as contained in Annex II to decision 5.CMA.3.
- CTF tables facilitate the tracking and reporting of countries' efforts to reduce GHG emissions and achieve their NDCs
- CTF tables provide a structured and consistent format for reporting emission reduced, emissions projection and other relevant data

What we will be tracking? – your story

INTENDED NATIONALLY DETERMINED CONTRIBUTIONS

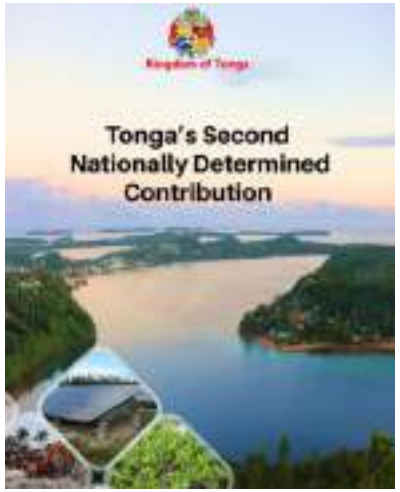
COOK ISLANDS

Introduction

The Cook Islands is a small island developing state comprising of 15 small islands with an exclusive economic zone (EEZ) of nearly 2 million sq km in the South Pacific Ocean. Globally, the Cook Islands contributes to only 0.00012% of GHG emissions, which is an insignificant amount relative to the total global emission of 2004 (IPCC Report, 2007). Yet, collectively, the consequences of the global emission via climate change is detrimental to ecosystems, infrastructures, economy, and therefore the livelihood of Cook Islanders.

The Cook Islands has carved a pathway of low carbon development to strengthen climate resilience and further reduce its carbon footprint to achieve its national vision, which is "*to enjoy the highest quality of life consistent with the aspirations of our people, and in harmony with our culture and environment*".

The Cook Islands believes that by aspiring to its national vision it is striving to keep the overall global average



Fiji's Updated Nationally Determined Contribution

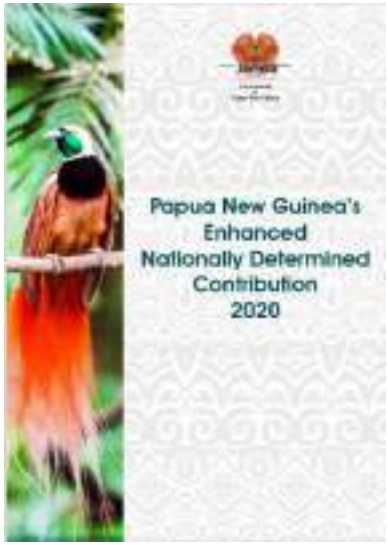
Introduction

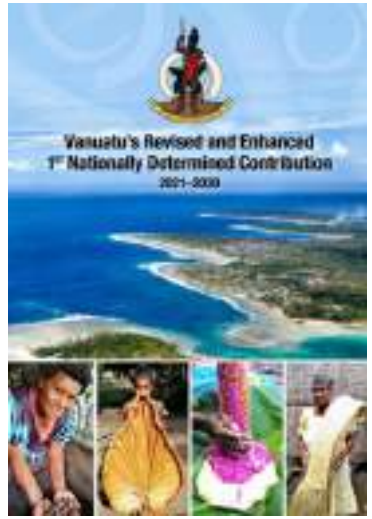
The Fijian Government is committed to the full, effective and transparent implementation of the Paris Agreement in accordance with its provisions and the relevant Decisions of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP) and the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA).

Fiji hereby communicates to the UNFCCC

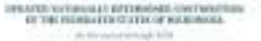
An update to its existing Nationally Determined Contribution (NDC) pursuant to Article 4.11 of the Paris Agreement that includes:

- a reaffirmation of its 2030 target;
- a commitment to achieve net zero greenhouse gas emissions by 2050;
- updated information to facilitate clarity, transparency and understanding;
- a commitment to enact its Climate Change Bill by 2021; and
- a commitment to operationalise its National Adaptation Plan.





What we will be tracking? – your story



Republic of Nauru

Updated
Nationally Determined Contribution

What we will be tracking? – your story

NDC targets – RMI 2025 (NDC 3.0)

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As we submit this NDC, we demonstrate our commitment to the Paris Agreement, and to addressing the climate crisis through multilateral solutions and ambitious national action. This NDC also demonstrates our drive, our achievements, and the challenges we face. In particular, we detail our domestic actions to contribute to the collective commitments made following the global stocktake, including the tripling of renewable energy, doubling of energy efficiency and removal of fossil fuel subsidies, all in pursuit of accelerating the transition away from fossil fuels this decade.

We urge all countries to set out their own actions, redouble their support and solidarity for others, and chart bold pathways to a safer and more just future for us all.

In RMI we are guided by the motto "Wode Jeppel," which means to accomplish through joint effort. The Marshallese people have embodied this motto as they reduce their own emissions, enhance their abilities to withstand climate shocks, and strengthen their response to loss and damage. Climate change will continue to threaten our islands, but our spirit and determination remains strong. We are united in ensuring our future embodies the self-determination of the Marshallese people, the legacy of our ancestors, and generations to come.

NDC targets in – Cook Islands

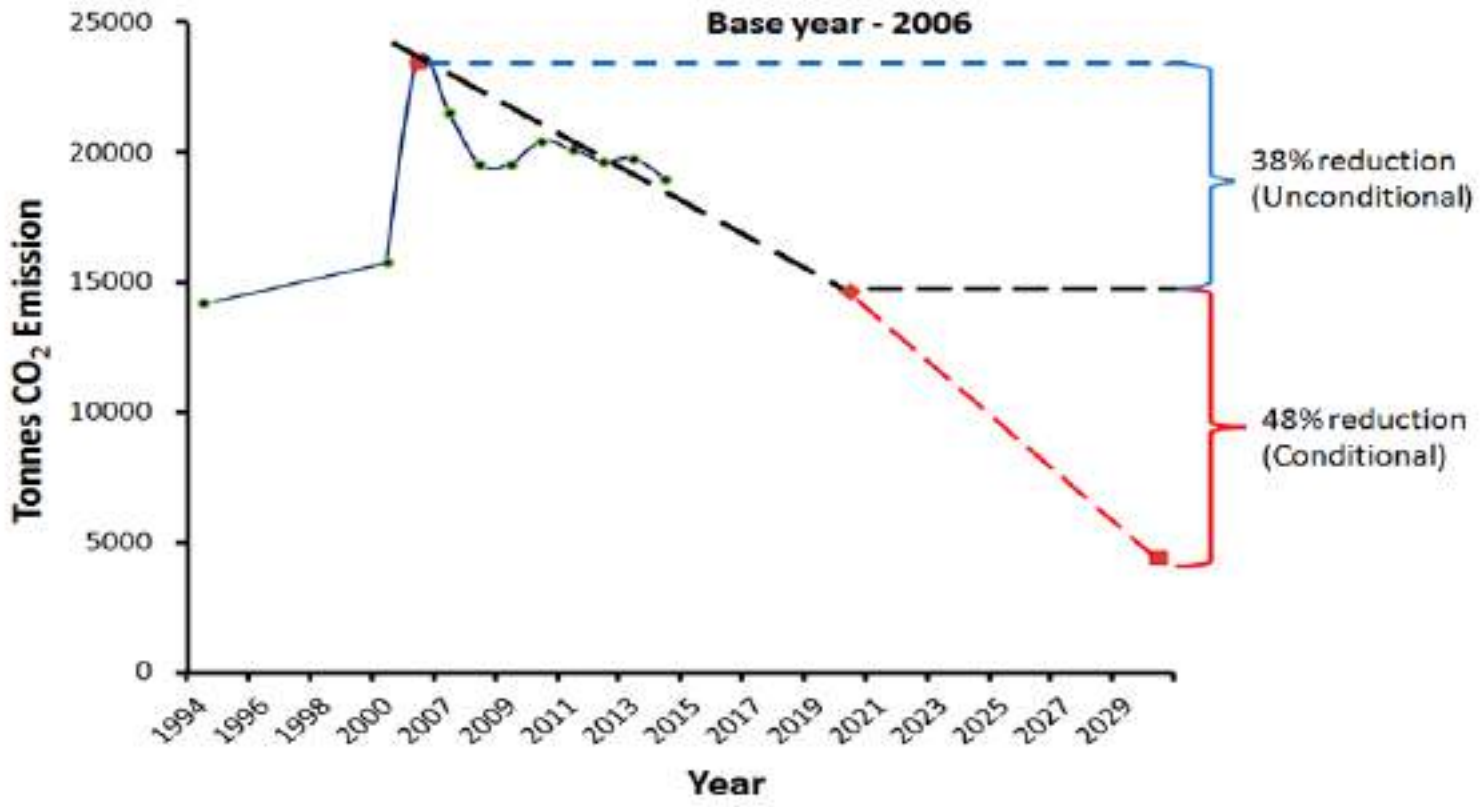


Figure 2. Electricity emission from 1994 to 2014. The Cook Islands base year is 2006 (blue dash line) and an unconditional target of 38% reduction by 2020. A conditional reduction of 43% by 2030, making a total reduction of 81% in the electricity sub sector.

NDC targets in – Samoa

Samoa aims to reduce overall GHG emissions by 26 percent in 2030 compared to 2007 levels (or by 91 Gg CO_2e compared to the new reference year once Samoa's GHG emissions inventory has been updated). This economy-wide emissions reduction target comprises the following sector-specific mitigation targets:

- Energy – reduce GHG emissions in the energy sector by 30 percent in 2030 compared to 2007 levels (or by 53 Gg CO_2e compared to the new reference year once the GHG emissions inventory is updated).7
- Waste - reduce GHG emissions in the waste sector by 4 percent in 2030 compared to 2007 levels (or by 1.2 Gg CO_2e compared to the new reference year once the GHG emissions inventory is updated).
- AFOLU - reduce GHG emissions in the AFOLU sector by 26 percent in 2030 compared to 2007 levels (or by 35.2 Gg CO_2e compared to the new reference year once the GHG emissions inventory is updated).

Samoa identifies the following quantitative targets that contribute to adaptation in the marine and AFOLU sectors:

- Marine – expand the area of mangrove forests in Samoa by 5 percent by 2030 relative to 2018.
- AFOLU – expand the area under agroforestry to an additional 5 percent of agricultural land by 2030 relative to 2018.
- AFOLU – manage forests sustainably and increase total forest cover by 2 percent by 2030 relative to 2013.

NDC targets in – Tonga

Tonga's targets for **mitigation** are as follows:

- Energy: 13% (16 Gg) reduction in GHG emissions by 2030 compared to 2006 through a transition to 70% renewable electricity as well as energy efficiency measures.
- AFOLU: establishment of a forest inventory as prerequisite to identify a GHG emission target for the 2025 NDC and planting one million trees by 2023.
- Waste: expansion of the formal waste collection system as prerequisite to identify a GHG emission target for the 2025 NDC.

In the context of **adaptation**, the Government of Tonga has set three targets:

- 30% of land in Tonga utilized for agro-forestry or forestry by 2025,
- Prevent any permanent loss of land to rising sea levels on Tonga's four main islands (i.e. Tongatapu, Ha'apai, Vava'u, and 'Eua),
- Maintenance of the existing stocks of fish and other marine species through a commitment to expand the area covered by Marine Protected Areas (MPAs) and Special Management Areas (SMAs) to 30% of the Tonga's Exclusive Economic Zone (EEZ).

NDC targets – Tuvalu

- Tuvalu commits to the reduction of greenhouse gas (GHG) emissions from the electricity (power) sector by 100%, i.e., almost zero emissions by 2030.
- Increase energy efficiency in Funafuti by 30%.
- Tuvalu's indicative quantified economy-wide target to reduce total GHG emissions from the entire energy sector to 60% below 2010 levels by 2030.
- Zero carbon development pathway by 2050.

NDC targets – Fiji

Fiji hereby communicates to the UNFCCC:

An update to its existing Nationally Determined Contribution (NDC) pursuant to Article 4.11 of the Paris Agreement that includes:

- a reaffirmation of its 2030 target;
- a commitment to achieve net zero greenhouse gas emissions by 2050;
- up-front information to facilitate clarity, transparency and understanding;
- a commitment to enact its Climate Change Bill by 2021; and
- a commitment to operationalise its National Adaptation Plan.

Annex II*

Common tabular formats for the electronic reporting of the information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement

1. Structured summary: Description of selected indicators

Indicator(s) selected to track progress[a]	*Description*
{Indicator}	
Information for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), as appropriate[b]	
Updates in accordance with any recalculation of the GHG inventory, as appropriate[b]	
Relation to NDC[c]	

Notes: (1) Pursuant to para. 79 of the MPGs, each Party shall report the information referred to in paras. 65–78 of the MPGs in a narrative and common tabular format, as applicable. (2) A Party may amend the reporting format (e.g. Excel file) to remove specific rows in this table if the information to be provided in those rows is not applicable to the Party's NDC under Article 4 of the Paris Agreement, in accordance with the MPGs. (3) The Party could add rows for each additional selected indicator and related information.

[a] Each Party shall identify the indicator(s) that it has selected to track progress of its NDC (para. 65 of the MPGs).

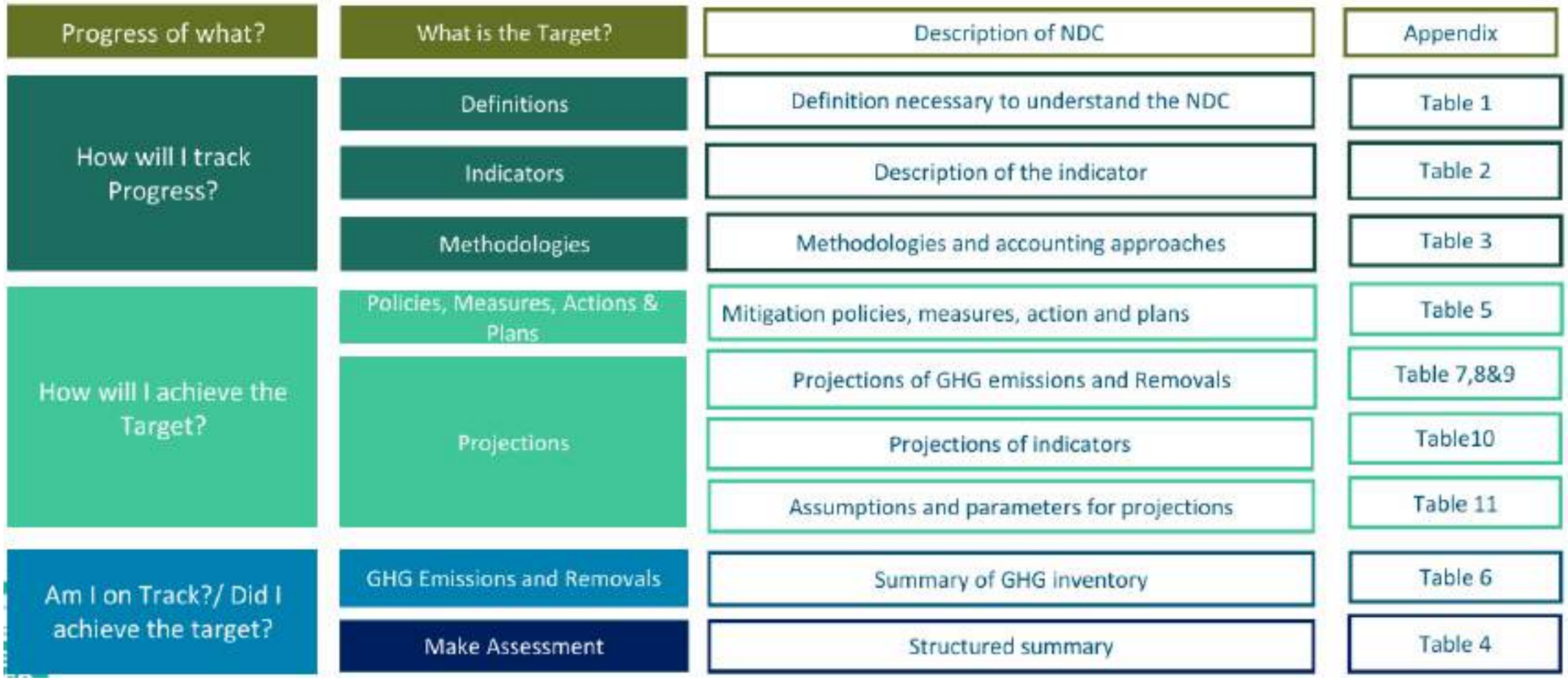
[b] Each Party shall provide the information for each selected indicator for the reference point(s), level(s), baseline(s), base year(s) or starting point(s), and shall update the information in accordance with any recalculation of the GHG inventory, as appropriate (para. 67 of the MPGs).

[c] Each Party shall describe for each indicator identified how it is related to its NDC (para. 76(a) of the MPGs).

Custom footnotes:

Documentation box:

Understanding CTFs



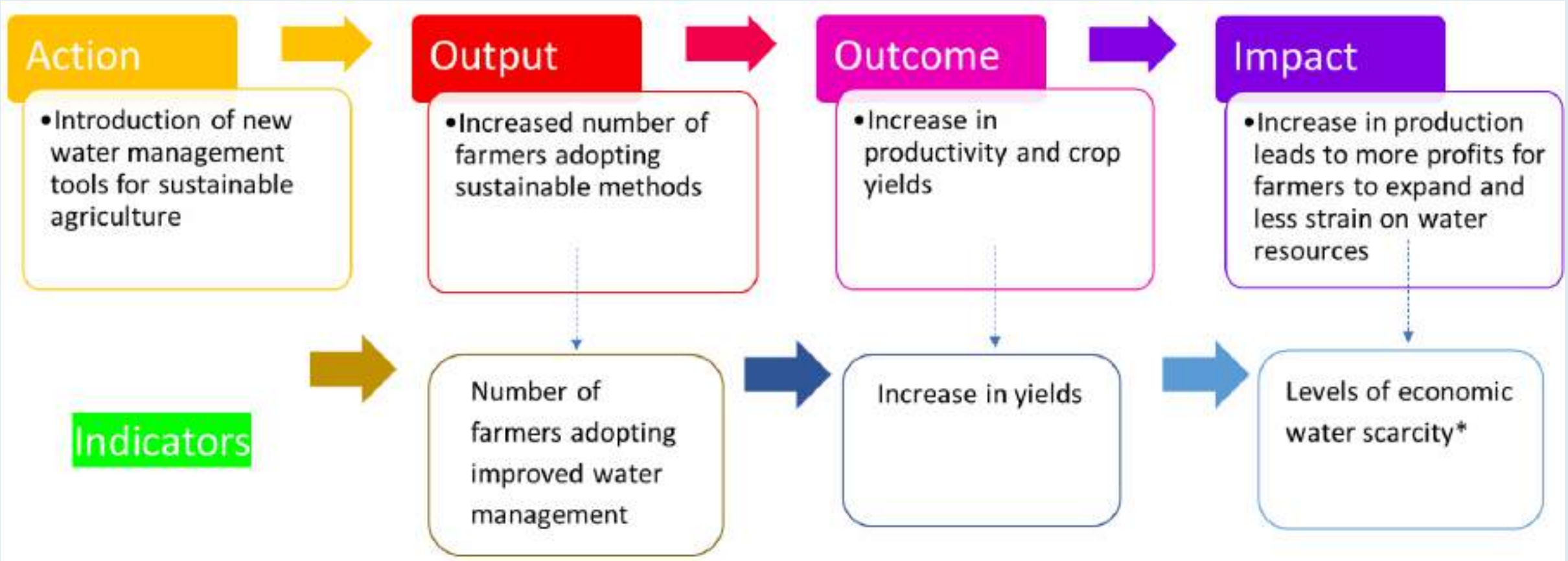
CTFs – details

- In total, the Common Tabular Formats (CTF) for tracking NDC comprise 12 Tables and one Appendix, covering the parts of Section III of the MPG:
- Section III: Information necessary to track progress made in implementing and achieving NDC
- Appendix: Description of a Party´s NDC
- Table 1: Description of selected indicators
- Table 2: Definitions needed to understand the NDC
- Table 3: Methodologies and accounting approaches
- Table 4: Tracking progress
- Table 5: Mitigation policies, measures, actions and plans (Achieved)
- Table 6: Inventory summary

CTFs – details

- Table 5: Mitigation policies, measures, actions and plans (expected)
- Table 7: Projections “with measures” scenario
- Table 8: Projections “with additional measures” scenario
- Table 9: Projections “without measure” scenario
- Table 10: Projections of key indicators
- Table 11: Key underlying assumptions and parameters of projections
- Table 12. Information necessary to track progress on the implementation and achievement of the domestic policies and measures implemented to address the social and economic consequences of response measures

Identify type of indicator suitable to track the target



Vanuatu – BTR1

Executive summary

This inaugural Biennial Transparency Report for Vanuatu serves as a comprehensive overview of the nation's efforts to meet its commitments under the Paris Agreement. It encompasses critical aspects of Vanuatu's national circumstances, greenhouse gas (GHG) inventory, progress tracking for nationally determined contributions (NDCs), climate change impacts and adaptation strategies, as well as financial and technological support needs and responses related to climate change. Additionally, the report addresses initiatives aimed at averting, minimizing, and addressing loss and damage associated with climate change impacts.

I. National Circumstances and Institutional Arrangements

Vanuatu's unique geographical and socio-economic context is characterized by its status as a small island developing state (SIDS), facing significant vulnerabilities due to climate change. This section outlines the institutional frameworks in place to facilitate climate governance, including coordination mechanisms among government agencies, civil society, and local communities. The report emphasizes Vanuatu's commitment to integrating climate action into national development plans, promoting resilience, and ensuring sustainable development.

II. National Greenhouse Gas Inventory

The national GHG inventory provides a detailed assessment of emissions sources across key sectors, including energy, agriculture, and waste management. It highlights the challenges of data collection in a small island context while showcasing efforts to improve accuracy and comprehensiveness. The inventory serves as a baseline for Vanuatu's GHG emissions, essential for tracking progress and informing future climate policies.

III. Progress on Nationally Determined Contributions

This chapter outlines Vanuatu's NDCs, focusing on renewable energy targets, emission reduction goals, and climate resilience initiatives. The report presents progress made towards these targets, including capacity-building measures, stakeholder engagement, and policy implementation. It identifies barriers faced in achieving NDCs and outlines strategies for overcoming these challenges.

IV. Climate Change Impacts and Adaptation

Vanuatu is experiencing a range of climate change impacts, including sea-level rise, extreme weather events, and biodiversity loss. This section discusses the nation's vulnerability assessments and adaptation strategies, including community-based adaptation practices and infrastructure resilience initiatives. The report emphasizes the need for ongoing investment in adaptive capacity to mitigate the adverse effects of climate change.

V. Financial, Technology Development, and Capacity-Building Support

Vanuatu's financial and technological needs for climate action are critical to achieving its climate goals. This chapter assesses the support received under international frameworks and outlines the gaps in funding and technology transfer necessary for effective climate action. It emphasizes the importance of strengthening partnerships and securing resources to enhance the nation's capacity to respond to climate change.

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Examples of NDC targets

NDC target type	Country Examples	Scope	Target value	Target unit	Target timeframe	Value in reference / Base period / BAU
Absolute emission reduction or limitation target relative to a base year	Brazil NDC commits 'to reduce its greenhouse gas emissions in 2025 by 37%, compared with 2005'.	CO_2, CH_4, N_2O, perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and SF_6	37	%	2025	Base year emission estimation in the fourth BUR is around 2.4 Mio. kt of CO_2 eq. May be updated according to the latest inventory.
Emission reduction target below a BAU level	Morocco's NDC unconditional) reduction target, '18.3% below BAU emissions by 2030''.	CO_2, CH_4, N_2O and HFCs	18.3	%	2030	The BAU scenario is projected approx. 1.4 Mio. kt CO_2 eq in 2030
Fixed-level target	Argentina's 's fixed-level target, will not exceed net emissions of 359 Mt CO_2 eq by 2030	CO_2, CH_4, N_2O, HFCs and PFCs	359	Mt CO_2 eq	2030	No reference value is used. But in its NDC submission Argentina compares the level of ambition to its 2016 emissions, which were around 364 Mt CO_2 eq

Examples of NDC targets – non GHG related

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NDC target type	Country Examples	Scope	Target value	Target unit	Target timeframe	Value in reference / Base period / BAU
Sectoral non–greenhouse gas targets	China has pledged to 'increase the share of non-fossil fuels in primary energy consumption to around 25%.	N/A	25	%	2030	N/A
Mitigation actions	Bangladesh aims to implement renewable energy projects, enhance efficiency of existing power plants, improve technology for power generation.	N/A	Implementation of actions	MW	2030	N/A

Tracking progress – steps

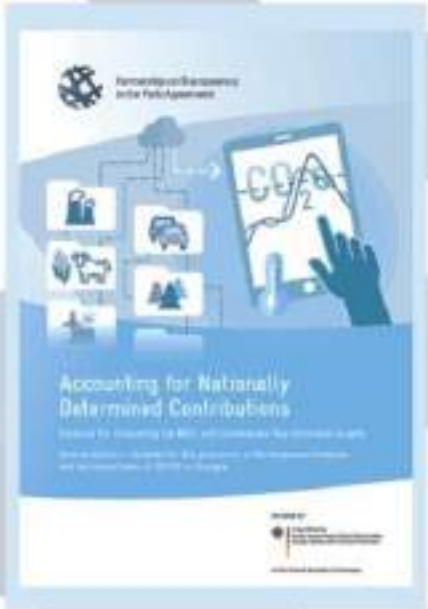
1

- **Identify and assess NDC targets (GHG, non-GHG, adaptation)**

✓List targets in a tabular format with relevant details (Decision 5/CMA.3 – voluntary Appendix table useful)

✓Quantitative, qualitative, scope, timeframe, unit, baseline

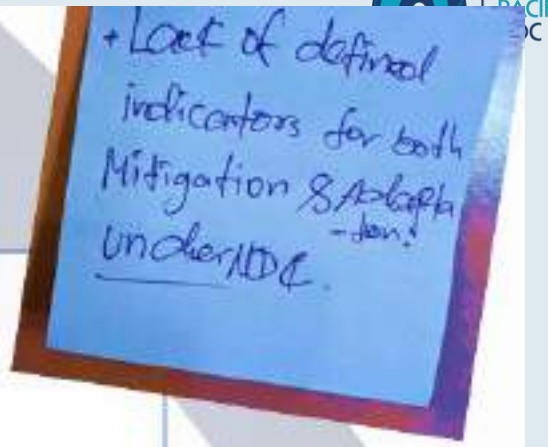
	Description
Target(s) and description, including target type(s), as applicable	• Economy-wide net greenhouse gas emission reduction of 20% by 2030 compared to the base year 2005 • Target Type: economy-wide emission reduction target
Target year(s) or period(s), and whether they are single-year or multi-year target(s), as applicable	• Target year: 2030 • Single-year target
Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s), as applicable	• Reference level: Economy-wide net greenhouse gas emissions and removals in 2005 • Value: 100 Mt CO_2e
Time frame(s) and/or periods for implementation, as applicable	• Period for implementation: 2021–2030
Scope and coverage, including, as relevant, sectors, categories, activities, sources and sinks, pools and gases, as applicable	• Sectors: Energy, industrial processes and product use, agriculture, land use, land use change and forestry, waste • Coverage: All emissions and removals on the national territory • Gases: CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3
Intention to use cooperative approaches that involve the use of ITMOs under Article 6 towards NDCs under Article 4 of the Paris Agreement, as applicable	The Party does not intend to use cooperative approaches
Any updates or clarifications of previously reported information, as applicable	The reference level has been updated due to recalculations in the national greenhouse gas inventory. The value communicated in the NDC was 101 Mt CO_2e. The updated reference level (emissions level in the base year) is 100 Mt CO_2e



Useful PATPA resources:

Accounting for NDCs: https://transparency-partnership.net/system/files/document/Guidance_Accounting%20for%20NDCs_engl_2022.pdf

Tracking of progress - overview of steps



2

- Identify type of indicator suitable to track the target
  - ✓ SMART: Specific + Measurable + Achievable + Relevant + Time-bound
  - ✓ Clarify scope, units, reference/baseline levels.
  - ✓ Involve stakeholders responsible for implementing measures

S	M	A	R	T
Specific	Measurable	Ambitious	Relevant	Time-bound
The indicator is clearly defined, so there cannot be different interpretations on what it is about or whether a target has been achieved or not.	The indicator value can be measured either quantitatively or qualitatively.	Achieving the target requires ambitious action.	The indicator relates to a relevant impact of a climate action.	The indicator relates to a point in time or timeframe when or during which the target value must be reached.

Useful PATPA resources:

NDC Progress Indicators: a guidance for practitioners: https://transparency-partnership.net/publications-tools/ndc-progress-indicators-guidance-practitioners

Make targets SMART

E.g. achieving a share of 28% of renewable power by 2030

This is not a fully SMART target yet.

- What should the 28% refer to – e.g., power generation (including or excluding imports and exports?) or capacities installed?
- Which technologies should be counted as renewable power technologies?

E.g. to increase public awareness of climate changes effects and impacts on general health

- How do you tell whether or not the indicator has been achieved?
- What types of climate change impacts will be addressed?
- What mechanism will be used to engage with the public?
- Under which conditions will public awareness be considered as increased?
- What are the current levels of public awareness, have these been defined?
- Finally, has a timeframe been established for when the target must be reached?

Make targets SMART – mitigation GHG related

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Type of mitigation target	Elements to consider for a SMART target	Unit
Absolute emission reduction or limitation target relative to a base year	• Base year clearly agreed? • Gases included agreed? • Sectors / GHG inventory categories agreed • Target year agreed?	kt CO_2 eq
Emission reduction target below a BAU level	• As for absolute emission reduction target • BAU level clearly defined? Data and methods available?	%
Intensity target	• As for absolute emission reduction target • Intensity-relevant factor and source / methodology to be used clearly defined, e.g., GDP, population?	kt CO2 eq / capita or GDP / etc. % (if compared to BAU or base period)

Make targets SMART – mitigation non GHG related

Type of mitigation target	Elements to consider for a SMART target	Unit
Renewable Energy	• Definition of "renewable" to be used – e.g., which sources, which technologies? • What does it relate to – share in total power / power + heat generated, GWh electricity generated, renewable generation capacities installed / operational?	• % • GWh • MW
Energy Efficiency	• Definition of "energy efficiency" to be used • What does the target relate to, e.g. - energy efficiency improvement compared to a base year or BAU - Energy efficiency target level?	• GWh • TJ / unit of GDP
Forest cover	• Is there a national forest definition? • Methodology to determine forest cover agreed? • Reference level / baseline data and methodology available?	• Hectares or km^2 • % of national territory • % increase compared to reference / baseline

Tracking of progress - overview of steps

3

- **Identify data and methodology required**
  - ✓Data collection: determine what information is required, who collects the data, where data is available, when data has to be collected.
  - ✓Check if adjustments to scope or units are necessary. Identify if calculations are needed and what methodologies to use

4

- **Compile, report, document, archive**
  - ✓Assess integration of data collection with existing processes. Plan long-term improvements for data quality and availability.
  - ✓Document all relevant information for future compilation. Learn from national GHG inventory and statistical offices' processes.

Identify type of indicator suitable to track the target

What to do. Once the NDC targets have been made SMART, identify indicators which allow understanding whether these targets have been met or not.

- With quantitative targets, once they are made SMART, the most relevant indicator can be identified from the target itself.
- With qualitative targets the intervention logic framework (Logframe) provides a helpful approach to identifying suitable progress indicators.

Further indicators, e.g., related to implementation, could of course be chosen to support the understanding of progress, e.g., afforested surface area, area for which forest management plans have been improved, etc.

The MPGs leave the choice of indicators to the Parties, as long as the indicators are relevant to their NDC. The use of such implementation-related progress indicators can surely be considered beneficial at the national level. Parties might however decide not to include such information in their BTRs.

Identify type of indicator suitable to track the target – GHG target

Type of mitigation target	Relevant indicators	Unit
Absolute emission reduction or limitation target relative to a base year	GHG emissions • as reported in the national GHG inventory adapted to the specific scope of the target (e.g., gases and sectors covered), • including use of market-based mechanisms, and • adapted to the specific timeframe of the target (e.g., where a multi-year target-period applies).	kt CO_2 eq
Emission reduction target below a BAU level	Relationship (e.g., difference in %) between • GHG emissions in the BAU target year / period (updated, where applicable) and • GHG emissions as reported in the national GHG inventory adapted to the specific scope of the target (e.g., gases and sectors covered), including use of market-based mechanisms, and adapted to the specific timeframe of the target (e.g., where a multi-year target-period applies)	%
Peaking Target	GHG emissions in all years leading to the current year, • as reported in the national GHG inventory adapted to the specific scope of the target (e.g., gases and sectors covered), • including use of market-based mechanisms	kt CO_2 eq

Identify type of indicator suitable to track the target – non GHG

Type of mitigation target	Relevant indicators	Unit
Renewable Energy	Depending on specific definition of target, relevant indicators include • % of electricity generated by source • Total generation by source • Installed capacity by source	• % • GWh • MW
Energy Efficiency	Depending on specific definition of target, relevant indicators include • Total energy demand or consumption • Energy intensity of the economy	• GWh • TJ / unit of GDP
Forest cover	Depending on specific definition of target, relevant indicators include • Share of land covered by forest • Area covered by forest • Area restored or reforested • Forest stock • CO_2 sequestered per year	• % • ha • ha • m^3 • t CO_2 eq

Identify data and methodology required

What to do?

- Once indicators have been defined, identify the data and methodology required to compile the indicator.
- For each indicator, a data collection plan needs to be developed. This will provide a complete overview for each indicator of what is being measured, the baseline, the targets, data sources and methods.
- It also specifies who will be collecting data, with what frequency and to whom it will be reported. In the case of NDC indicators, much relevant information or sometimes even the indicator data itself is likely to be already available from data collection for the compilation of other sections of the BTR

Identify data and methodology required

In considering the data and potential methodology required, the following questions might be helpful:

- What information is required for the indicator?
- Where can that information be found– has it already been compiled for other purposes, e.g., national statistics, SDG reporting?
- For which years is the information available? Does the information available have the necessary quality, e.g., is the approach to data collection / calculation consistent over time, is the data sufficiently accurate?
- Is the information already available with the correct scope and in the correct units? Or are adjustments to scope / units necessary?
- Is a calculation necessary to compile the indicator (e.g., GHG emissions, GHG emission reductions or removals?) If so, is there an internationally accepted practice that should be used, e.g. the 2006 IPCC Guidelines for National GHG Inventories, the World Resource Institute Policy and Action Standard, Progress indicators for mitigation and/or adaptation actions as agreed for reporting to donors.

Identify data and methodology required – GHG target

Mitigation target categories	Relevant data sources
Absolute emission reduction or limitation target relative to a base year	• National GHG inventory data from the BTR under preparation
Emission reduction target below a BAU level	• National GHG inventory data from the BTR under preparation • BAU projections from the most recent NDC or from the BTR under preparation in case the BAU projections are updated over time
Peaking Target	• National GHG inventory data from the BTR under preparation
Intensity target	• National GHG inventory data from the BTR under preparation • Depending on specific target: GDP, population typically available from the national statistical offices

Identify data and methodology required – non GHG target

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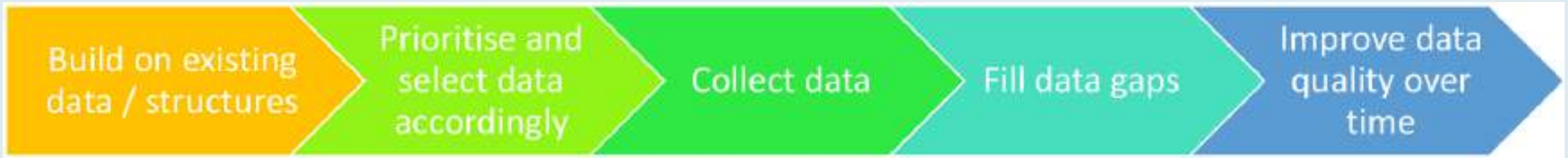
Mitigation target categories	Relevant data sources
Renewable Energy	Depending on specific target: • % of electricity generated by source and/or total generation by source from the national energy balance (if available), likely collected for the mitigation chapter of the BTR under preparation • Installed capacity by source: Potentially collected for the mitigation chapter of the BTR under preparation, alternatively to be collected from the Ministry responsible for power and heat generation
Energy Efficiency	• Total energy demand or consumption: from the national energy balance (if available), potentially collected for the mitigation chapter of the BTR under preparation • Energy intensity of the economy: Potentially available from the national statistical services.
Forest cover	• Depending on type of target information like: - % of land covered by forest - Hectares of land covered by forest - Hectares of land restored or reforested - Volume of forest stock - Tonnes of CO2 stored/sequestered per year Has likely been collected for the preparation of the LULUCF categories of the national GHG inventory and potentially for the mitigation and/or adaptation chapters.
Implementation of qualitative policies and measures	• Information likely available from the mitigation chapter of the BTR under preparation.

Compiling, reporting, documenting, archiving

What to do?

- The assessment of available data sources in the previous step will show that many progress indicators can be compiled with data already available from BTRs and National Communications (NCs).
- The timing – when such data, e.g., national GHG inventory estimates, information on actions, becomes available – will be important to consider for the overall BTR compilation process.
- Where additional data needs to be collected, assess whether such data collection can be integrated into existing data collection processes or can be built up together with data collection processes which need to be established for BTR reporting.



Compiling, reporting, documenting, archiving

Type of data gap	What to do	What to report in the BTR
Relevant input data not available at all	Identify • activities enabling the collection of relevant data (e.g., research, studies, new statistics) • entities responsible for these activities • necessary preconditions, e.g., budget / staff, legal framework, MoUs, etc.	Report • the fact that the indicator data is currently not available and why that is the case • action taken to make the indicator data available in the future • When you expect to be able to report on the indicator • What international support is required to do so (if applicable)
Relevant input data not available for all years, all sectors, all regions, etc.	• Where possible, use gap-filling approaches (e.g., overlap, surrogate data, interpolation, and trend extrapolation) to estimate the indicator value for the full scope / all relevant years • Use approaches suggested under "relevant input data not available at all" to collect missing data in the future	Report, • what information was not available / for which years? • What gap filling approaches have been deployed? • actions taken to make indicator data available in the future • When would you expect to be able to report the indicator? • What international support is required to do so (if applicable)?
Data is not available as a relevant mitigation or adaptation action has not started yet	• Put data collection and compilation processes in place before the action starts	Report • The fact that the implementation has not yet started and • When it is planned to start?

Thank you.

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