



# Preparing the Philippine First Biennial Update Report (BUR): BUR Templates

Republic of the Philippines

Manila, Philippines

This document serves as the template to guide the BUR Secretariat and the participating agencies and organizations in the preparation of the BUR

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## ABBREVIATIONS

## MESSAGE

Nullam vulputate nibh ut sem accumsan egestas. Sed eget ultricies erat. Nullam bibendum magna et ante commodo, id gravida risus volutpat. Sed congue elementum eros. Aenean mattis lorem sed ex lacinia lobortis. Praesent pharetra nunc sed aliquam pharetra. Suspendisse vel leo at odio varius varius nec a tellus. Mauris aliquet ac felis vel interdum. Donec vel risus dignissim, lobortis leo nec, tristique libero. Cras in lorem id dolor accumsan pellentesque sed a diam. Nullam viverra nisi id quam imperdiet auctor sed nec augue. Nulla a dui eu turpis luctus aliquet at blandit tortor. Nullam posuere nulla ligula, quis ultricies mi congue non. Duis sed nulla id odio mollis laoreet.

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President of the Philippines

December 2022

## FOREWORD

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Vice-Chairperson and Executive Director  
Climate Change Commission

December 2022

## EXECUTIVE SUMMARY

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## CHAPTER I NATIONAL CIRCUMSTANCES

### *Introduction*

#### **1.1. Physical and Geographical Profile**

#### **1.2. Socio-economic Profile**

*including information on domestic climate change funding and investment*

#### **1.3. Climate**

#### **1.4. Development Priorities**

#### **1.5. Gender and Women Empowerment**

#### **1.6. Constraints and Gaps/Needs and Concerns**

Resources:

- GIZ BUR Template
- UNFCCC Manual on National Communications

## CHAPTER 2 INSTITUTIONAL ARRANGEMENTS

### *Introduction*

#### **2.1. Overarching Frameworks**

*Narratives: Climate Change Act*

#### **2.2. Institutional Arrangements**

*Narratives: Climate Change Commission and its Advisory Board and National Panel of Technical Experts; Cabinet Cluster on Climate Change Adaptation and Mitigation and Disaster Risk Reduction; Interagency Committee on Environment and Natural Resources Statistics; National Designated Agencies for GCF, GEF, CDM; UNFCCC National Focal Points; National Focal Points of UNFCCC workstreams; NDC Technical Working Group; Philippine Greenhouse Gas Inventory Management and Reporting System; Climate Change Expenditure Tagging*

*Further information on report preparation and measurement, reporting, and verification are elaborated in Chapter 7 Domestic MRV System*

Resources:

- US EPA Tool and Template
- GIZ BUR Template
- UNFCCC Toolkit on Institutional Arrangements
- CGE Module on Institutional Arrangements

## CHAPTER 3 NATIONAL GHG INVENTORY REPORT

### *Introduction*

*Full technical documentation is included in the NIR Technical Annex.*

### **3.1. GHG Inventory Preparation Process**

3.1.1. Planning and Preparations

3.1.2. Methodologies and Assumptions

3.1.2.1. Estimation Approaches

3.1.2.2. Key Source Analysis

3.1.2.3. Uncertainty Analysis

3.1.2.4. Global Warming Potential and Sources of Emission Factors and Activity Data

3.1.3. Data Quality Management

3.1.4. Archiving System

### **3.2. National Inventory Report for 2010, 2015, and 2020**

3.2.1. Narrative Summary

## 3.2.2. Summary Tables and Figures

**Table 1 National greenhouse gas inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol and greenhouse gas precursors**

<b>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</b>	<b>CO<sub>2</sub> emissions (Gg)</b>	<b>CO<sub>2</sub> removals (Gg)</b>	<b>CH<sub>4</sub> (Gg)</b>	<b>N<sub>2</sub>O (Gg)</b>	<b>CO (Gg)</b>	<b>NO<sub>x</sub> (Gg)</b>	<b>NMVOCs (Gg)</b>	<b>SO<sub>x</sub> (Gg)</b>
<b>Total national emissions and removals</b>	X	X	X	X	X	X	X	X
<b>1. Energy</b>	X	X	X	X	X	X	X	X
A. Fuel combustion (sectoral approach)	X		X	X	X	X	X	X
1. Energy industries	X		X	X	X	X	X	X
2. Manufacturing industries and construction	X		X	X	X	X	X	X
3. Transport	X		X	X	X	X	X	X
4. Other sectors	X		X	X	X	X	X	X
5. Other (please specify)	X		X	X	X	X	X	X
B. Fugitive emissions from fuels	X		X		X	X	X	X
1. Solid fuels			X		X	X	X	X
2. Oil and natural gas			X		X	X	X	X
<b>2. Industrial processes</b>	X	X	X	X	X	X	X	X
A. Mineral products	X				X	X	X	X
B. Chemical industry	X		X	X	X	X	X	X
C. Metal production	X		X	X	X	X	X	X
D. Other production	X				X	X	X	X
E. Production of halocarbons and sulphur hexafluoride								
F. Consumption of halocarbons and sulphur hexafluoride								
G. Other (please specify)	X		X	X	X	X	X	X
<b>3. Solvent and other product use</b>	X			X			X	
<b>4. Agriculture</b>			X	X	X	X	X	X
A. Enteric fermentation			X					
B. Manure management			X	X			X	
C. Rice cultivation			X				X	
D. Agricultural soils			X	X			X	
E. Prescribed burning of savannahs			X	X	X	X	X	
F. Field burning of agricultural residues			X	X	X	X	X	
G. Other (please specify)			X	X	X	X	X	
<b>5. Land-use change and forestry</b>	X <sup>b</sup>	X <sup>b</sup>	X	X	X	X	X	X
A. Changes in forest and other woody biomass stocks	X <sup>b</sup>	X <sup>b</sup>						
B. Forest and grassland conversion	X	X	X	X	X	X		
C. Abandonment of managed lands		X						
D. CO <sub>2</sub> emissions and removals from soil	X <sup>b</sup>	X <sup>b</sup>						
E. Other (please specify)	X	X	X	X	X	X		
<b>6. Waste</b>			X	X	X	X	X	X
A. Solid waste disposal on land			X		X		X	
B. Waste-water handling			X	X	X	X	X	
C. Waste incineration					X	X	X	X
D. Other (please specify)			X	X	X	X	X	X
<b>7. Other (please specify)</b>	X	X	X	X	X	X	X	X
<b>Memo items</b>								
<b>International bunkers</b>	X		X	X	X	X	X	X
Aviation	X		X	X	X	X	X	X
Marine	X		X	X	X	X	X	X
<b>CO<sub>2</sub> emissions from biomass</b>	X							



**Notation Keys**

**NO** (not occurring) for activities or processes that do not occur for a particular gas or source/sink category within a country

**NE** (not estimated) for existing emissions and removals which have not been estimated

**NA** (not applicable) for activities in a given source/sink category which do not result in emissions or removals of a specific gas

**IE** (included elsewhere) for emissions and removals estimated but included elsewhere in the inventory (Parties should indicate where the emissions or removals have been included)

**C** (confidential) for emissions and removals which could lead to the disclosure of confidential information

**Table 2 National greenhouse gas inventory of anthropogenic emissions of HFCs, PFCs and SF6**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFCs <sup>a,b</sup> (Gg)			PFCs <sup>a,b</sup> (Gg)			SF6 <sup>a</sup> (Gg)
	HFC-23	HFC-134	Other (to be added)	CF4	C2F6	Other (to be added)	
<b>Total national emissions and removals</b>	X	X	X	X	X	X	X
<b>1. Energy</b>							
A. Fuel combustion (sectoral approach)							
1. Energy industries							
2. Manufacturing industries and construction							
3. Transport							
4. Other sectors							
5. Other (please specify)							
B. Fugitive emissions from fuels							
1. Solid fuels							
2. Oil and natural gas							
<b>2. Industrial processes</b>	X	X	X	X	X	X	X
A. Mineral products							
B. Chemical industry							
C. Metal production	X	X	X	X	X	X	X
D. Other production							
E. Production of halocarbons and sulphur hexafluoride	X	X	X	X	X	X	X
F. Consumption of halocarbons and sulphur hexafluoride	X	X	X	X	X	X	X
G. Other (please specify)							
<b>3. Solvent and other product use</b>							
<b>4. Agriculture</b>							
A. Enteric fermentation							
B. Manure management							
C. Rice cultivation							
D. Agricultural soils							
E. Prescribed burning of savannahs							
F. Field burning of agricultural residues							
G. Other (please specify)							
<b>5. Land-use change and forestry</b>							
A. Changes in forest and other woody biomass stocks							
B. Forest and grassland conversion							
C. Abandonment of managed lands							
D. CO2 emissions and removals from soil							
E. Other (please specify)							
<b>6. Waste</b>							
A. Solid waste disposal on land							
B. Waste-water handling							
C. Waste incineration							
D. Other (please specify)							
<b>7. Other (please specify)</b>	X	X	X	X	X	X	X
<b>Memo items</b>							
<b>International bunkers</b>							
Aviation							
Marine							
<b>CO2 emissions from biomass</b>							

### 3.2.3. Time series

## 3.3. Limitations and challenges

## 3.4. Inventory Improvement Plan

Resources:

- Tables 1 and 2 of Decision 17/CP.8
- IPCC Sectoral Reporting Tables
- US EPA Tool and Template
- GIZ BUR Template
- UNFCCC Guide for Peer Review of GHG Inventories

## CHAPTER 4 MITIGATION ACTIONS AND THEIR EFFECTS

### *Introduction*

#### 4.1. Summary of mitigation actions and their effects

**Table 3 Summary of mitigation actions from 2015-2020**

Title	Duration	Type	Source of Funding	Scope	Coverage		Status
					Sector	Gas/es	
		goal / strategy / policy / projects & programmes	domestic funds / international support/ crediting mechanism	economy-wide / cross-sectoral / sector-specific / technology-based	agriculture waste industry transport forestry and other land use energy	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, PFCs, HFCs, SF <sub>6</sub> , NF <sub>3</sub>	completed / on-going

*Table adapted from CGE Training Material for the Preparation of Biennial Update Reports from Non-Annex I Parties: Reporting Mitigation Actions and their Effects*

**Table 4 Summary of mitigation projects under international market mechanisms**

Title	Duration	Facility	Estimated emissions reduction / avoidance	Status
				completed / on-going

## 4.2. Mitigation policies and measures

### Option 1: Detailed matrix per mitigation action

Title <i>e.g. Expansion of self-supply renewable energy systems (SSRE)</i>							
Status [idea, planning phase, under implementation]	Implementing institution	Duration	Sector/ Subsector	Geographical scale	Quantitative targets (both GHG-related and non-GHG impacts, as applicable)		GHGs covered
<i>Under implementation</i>	<i>Ministry of Energy</i>	<i>2014-2020</i>	<i>Energy supply, renewable energy</i>	<i>National</i>	<i>Reduction of XXX tCO<sub>2</sub> per year Reduction of PM2.5 concentrations by XX µg/m<sup>3</sup> in City X, City Y and City Z</i>		<i>CO<sub>2</sub></i>
Objective of the mitigation action							
<i>Describe here the objectives of the action, including scope and goals. e.g. "The objective of the mitigation action is to reduce emissions from fossil fuel fired power plants by fostering self-supply renewable energy projects and to contribute to the long-term development of the renewable energy industry"</i>							
Brief description and activities planned under the mitigation action							
<i>Describe here the actions and steps taken to achieve the objectives. e.g. "The mitigation action will achieve the objectives through a comprehensive programme of measures to remove barriers and incentivize SSRE investments with three components: a financial support component, a technical support component and an outreach component. Financial component: a tax rebate is being developed by the Treasury Office for SSRE investments Technical support component: The Ministry of Energy is coordinating with the Climate Technology Centre &amp; Network (CTCN) to incorporate new courses on technical training on SSRE installation, operation and maintenance at accredited vocational schools in the country. Outreach component: The Ministry of Energy has developed an information campaign in cooperation with the largest utility companies in the country to promote SSRE in mailings with electricity bills."</i>							
<i>Note: Also, indicate here if the mitigation action is part of any international market mechanisms, if applicable.</i>							
Estimated outcomes and estimated emission reductions							
<i>Describe here the estimated GHG-related and non-GHG impacts of the action, both qualitative and quantitative.</i>							
Methodologies and assumptions							
<i>Describe here the methodology used to estimate the emission reductions and key assumptions taken.</i>							
General description of the monitoring and reporting system							
<i>Include here a list and description of key indicators that will be monitored.</i>							
Key indicators used							
Name of the indicator	Unit	Indicator baseline value	Indicator target value	Year baseline and target value relate to	Indicator value in the last reporting year	Reporting year (20xx)	Most relevant data sources for indicator value
Progress indicators							
<i>e.g. Tax rebate requests</i>	<i>Quantity of requests</i>	<i>0</i>	<i>110,000</i>	<i>2020</i>	<i>0</i>	<i>2014</i>	<i>Treasury Office</i>
<i>e.g. Total installed capacity of SSRE</i>	<i>kW</i>	<i>5,000 kW</i>	<i>60,000 kW</i>	<i>2020</i>	<i>375 kW</i>	<i>2014</i>	<i>Treasury Office</i>
Indicators related to GHG impacts							
<i>e.g. Annual emission reduction</i>	<i>tCO<sub>2</sub></i>	<i>8,760 tCO<sub>2</sub></i>	<i>100,000 tCO<sub>2</sub></i>	<i>2020</i>	<i>657 tCO<sub>2</sub></i>	<i>2014</i>	<i>Ministry of Energy</i>
Indicators related to sustainable development							
<i>e.g. Yearly average PM2.5 concentration in City X</i>	<i>µg/m<sup>3</sup></i>	<i>50 µg/m<sup>3</sup></i>	<i>30 µg/m<sup>3</sup></i>	<i>2020</i>	<i>52 µg/m<sup>3</sup></i>	<i>2014</i>	<i>Municipal Environmental Authority of City X</i>

table adapted from GIZ Information Matters (2017) BUR Template

Option 2: Simplified matrix per mitigation action

Title				Duration			
Implementing Ministry				Status (completed / on-going)			
Type	Source of Funding	Scope	Sector/s	Gas/es		Quantitative Goals	Progress Indicators
goal / strategy / policy / projects & programmes	domestic funds / international support/ crediting mechanism	economy-wide / cross-sectoral / sector-specific / technology-based	agriculture waste industry transport forestry and other land use energy	CO2, PFCs, NF3	CH4, HFCs, SF6	N2O, SF6	GHG / non-GHG
<b>Objectives</b>							
<b>Description (including activities/steps)</b>							
<b>Facility and credits issued / to be issued (if under international market mechanism)</b>							
<b>Methodologies and Assumptions (including methodology and parameters for determining goals, indicators, to the extent possible)</b>							
<b>Results achieved (including information on achievement on goals and indicators to the extent possible)</b>							

table adapted from GIZ Information Matters (2017) BUR Template and guidance from CGE Training Material for the Preparation of Biennial Update Reports from Non-Annex I Parties: Reporting Mitigation Actions and their Effects

### **4.3. International market mechanisms**

*Other information on international market mechanisms*



#### 4.4. Limitations and challenges

Resources:

- BUR Template
- CGE Module on Mitigation Actions and their Effects

## CHAPTER 5 SUPPORT NEEDED AND RECEIVED

### *Introduction*

#### **5.1. Summary of Gaps and Constraints**

5.1.1. Vulnerabilities, risks, impacts, and adaptation

5.1.2. Mitigation and GHG inventory

5.1.3. Transparency and MRV

5.1.4. Accessing and mobilizing support

## 5.2. Support needed

### 5.2.1. Vulnerabilities, risks, impacts, and adaptation

**Table 5 Support needed in relation to vulnerabilities, risks, impacts, and adaptation**

Need identified	Supported needed	Type of support needed	Timeframe for the delivery of support

table adapted from GIZ Information Matters (2017) BUR Template

### 5.2.2. Mitigation and GHG inventory

**Table 6 Support needed in relation to mitigation and GHG inventory**

Need identified	Supported needed	Type of support needed	Timeframe for the delivery of support

table adapted from GIZ Information Matters (2017) BUR Template

### 5.2.3. Transparency and MRV

**Table 7 Support needed in relation to MRV and transparency**

Need identified	Supported needed	Type of support needed	Timeframe for the delivery of support

table adapted from GIZ Information Matters (2017) BUR Template

5.2.4. Accessing and mobilizing support

**Table 8 Support needed to access and mobilize support**

Need identified	Supported needed	Type of support needed	Timeframe for the delivery of support

*table adapted from GIZ Information Matters (2017) BUR Template*

### **5.3. Support received**

*Narrative summary*

5.3.1. Support received by funding source and type

a. Multilateral sources

**Table 9 Summary of support received from multilateral sources**

Reporting Period:	2015-2020		
Description/remarks	(remarks) USD exchange rate:		
Funding Source	<i>Financial</i>	<i>Capacity Building</i>	<i>Technology</i>
<b>Multilateral sources</b>			
a) Global Environment Facility			
b) Green Climate Fund			
c) Additional funding from specialized United Nations bodies			
o United Nations Development Programme			
o United Nations Environment Program			
o United Nations Office for Project Services			
o International Fund for Agricultural Development			
d) ....			
e) ....			
Subtotal			
Total			

Table adapted from CGE Training Material for the Preparation of Biennial Update Reports from Non-Annex I Parties: Finance, Technology and Capacity-Building Needs and Support Received

b. Bilateral Cooperation and Agreements

**Table 10 Summary of support received from bilateral cooperation and agreements**

Reporting Period:	2015-2020					
Description/remarks	(remarks) USD exchange rate:					
Funding Source	<i>Financial</i>		<i>Capacity Building</i>		<i>Technology</i>	
<b>Grants</b>	<i>Count</i>	<i>Amount</i>	<i>Count</i>	<i>Amount</i>	<i>Count</i>	<i>Amount</i>
China						
European Union						
Italy						
France						
Germany						
Japan						
South Korea						
Spain						
USA						
<b>Loans</b>						
China						
Japan						
South Korea						
[...]						
[...]						
Subtotal						
Total						

Table adapted from CGE Training Material for the Preparation of Biennial Update Reports from Non-Annex I Parties: Finance, Technology and Capacity-Building Needs and Support Received, and NEDA ODA Review 2019

c. Multilateral Financial Institutions & Regional Development Banks

**Table 11 Summary of support received from multilateral financial institutions and regional development banks**

Reporting Period:	2015-2020					
Description/remarks	(remarks) USD exchange rate:					
	<i>Financial</i>		<i>Capacity Building</i>		<i>Technology</i>	
<b>Multilateral Financial Institutions &amp; Regional Development Banks</b>	<i>Count</i>	<i>Amount</i>	<i>Count</i>	<i>Amount</i>	<i>Count</i>	<i>Amount</i>
<b>Loan</b>						
Asian Development Bank						
Asian Infrastructure Investment Bank						
World Bank						
<b>Grant</b>						
Asian Development Bank						
World Bank						
[...]						
[...]						
Subtotal						
Total						

Table adapted from CGE Training Material for the Preparation of Biennial Update Reports from Non-Annex I Parties: Finance, Technology and Capacity-Building Needs and Support Received, and NEDA ODA Review 2019



5.3.2. Financial support received

**Table 12 Financial support received for climate action**

Project/Program	Fund Source	Implementing Agency	Duration	Focus	Theme/Sector	Focal Agency	Status

5.3.3. Capacity building support received

**Table 13 Capacity-building support received for climate action**

Project/Program	Fund Source	Implementing Agency	Duration	Focus	Theme/Sector	Focal Agency	Status

5.3.4. Technology support received

**Table 14 Technology support received for climate action**

Project/Program	Fund Source	Implementing Agency	Duration	Focus	Theme/Sector	Focal Agency	Status

#### 5.4. Other concerns related to support

## CHAPTER 6 SUPPORT RECEIVED FOR BUR PREPARATION

### *Introduction*



## 6.2. Strengths and limitations on support for national report preparation

Resources:

- GIZ BUR Template
- CGE Module on Support Needed and Received

## CHAPTER 7 DOMESTIC MRV SYSTEM

### Introduction

#### 7.1. Philippine National MRV System

#### 7.2. MRV system for GHG Inventory

ROLE	AGENCY
National Inventory Coordinator	
Energy Sector Lead	
Transport Sector Lead	
IPPU Sector Lead	
Agriculture Sector Lead	
Land Use, Land-Use Change, and Forestry (LULUCF) Sector Lead	
Waste Sector Lead	
Archive (Data and Document) Manager/Coordinator	
QA/QC Coordinator	
Uncertainty Analysis Coordinator	

*Note: Reporting Template adapted from US EPA*

#### 7.3. MRV system for Mitigation Actions

#### 7.4. MRV system for Means of Implementation

##### Resources:

- GIZ BUR Template
- US EPA Tool and Template
- UNFCCC Handbook on MRV for NAI



- CGE Handbook on Institutional Arrangements