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## EU4CLIMATE PROJECT

# CONSOLIDATED FINAL REPORT ON THE ASSIGNMENT EXECUTION

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## Chapter 1. Review of Existing MRV System under the UNFCCC in the Republic of Moldova

Republic of Moldova has actively taken part in international efforts to protect the environment. Since 1991 the Republic of Moldova has developed an extensive environmental framework of laws, concepts, strategies, programs and action plans to cover all major environmental areas.

The most urgent current environmental problems in the country are: improvement of the quality of drinking water, protection of soil resources, safe management of obsolete pesticides and toxic wastes, biodiversity conservation, climate change, minimization of transboundary effects and diminution of the anthropogenic impact, environmental education and public awareness.

Until now, Republic of Moldova has joined 18 conventions, 9 protocols and 3 international environment agreements (Box 1-1).

### Box 1-1: International Conventions and Additional Protocols to which RM is a Party

1. Convention on the Conservation of European Wildlife and Natural Habitats (Berne, 1979), ratified by Parliament Decision No.1546 of 23 June 1993;
2. Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 25 February 1991), ratified by Parliament Decision No.1546 of 23 June 1993;
3. Convention on the Transboundary Effects of Industrial Accidents (Helsinki, 17 March 1992), ratified by Parliament Decision No.1546 of 23 June 1993;
  - Protocol on Strategic Environmental Assessment (Kiev, 2003) to the Convention on the Transboundary Effects of Industrial Accidents (Helsinki, 1992), signed by RM on 21 May 2003;
4. Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 17 March 1992), ratified by Parliament Decision No.1546 of 23 June 1993;
  - Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992), ratified by Law No.207 of 29 July 2005;
5. Convention on Biological Diversity (Rio de Janeiro, 1992), ratified by Parliament Decision No. 1546 of 23 June 1993;
  - Cartagena Protocol on Biosecurity to the Convention on Biological Diversity (Rio de Janeiro, 1992), ratified by Moldova by Law No. 1381 of 11 October 2002;
6. Convention on Long-Range Transboundary Air Pollution (Geneva, 13 Nov 1979), ratified by Parliament Decision No. 399 of 16 March 1995;
  - Protocol on the Persistent Organic Pollutants to the Convention on Long-Range Transboundary Air Pollution (Geneva, 1979), ratified by Law No. 1018 of 25 April 2002;
  - Protocol on Heavy Metals to the Convention on Long-range Transboundary Air Pollution (Geneva, 1979), ratified by Law No. 1018 of 25 April 2002;
  - Protocol on Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to the Convention on Long-Range Transboundary Air Pollution (Geneva, 1979), signed by RM on 23 May 2000;
7. UN Framework Convention on Climate Change (New-York, 9 May 1992), ratified by Parliament Decision No. 404 of 16 March 1995;
  - Kyoto Protocol on the UN Framework Convention on Climate Change, joined by RM by Law No. 29 of 13 February 2003;
  - Paris Agreement on the UN Framework Convention on Climate Change, joined by RM by Law No. 78 of 4 May 2017;
8. Convention on Ozone Layer Protection (Vienna, 22 March 1985), ratified by Parliament Decision No. 966 of 27 June 1996;
  - Protocol on Substances that Deplete the Ozone Layer (Montreal, 16 Sept 1987) to the Convention on Ozone Layer Protection (Vienna, 1985), ratified by Parliament Decision No. 966 of 27 July 1996;
9. Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel, 22 March 1989), ratified by Parliament Decision No.1599 of 10 March 1998;
10. UN Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification (Paris, 17 June 1994), ratified by Parliament Decision No.257 of 24 December 1998;
11. Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Sofia, 29 June 1994), ratified by Parliament Decision No.323 of 17 March 1999;
12. Convention on Access to Information, Public Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998), ratified by Parliament Decision No. 346 of 7 April 1999;
  - Protocol on Pollutant Release and Transfer Registers (PRTRs) to the Convention on Access to Information, Public Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 1998), signed by RM on 21 May 2003;

13. Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 2 February 1971), ratified by Parliament Decision No. 504 of 14 July 1999;
14. Convention on Conservation of Migratory Species of Wild Animals (Bonn, 23 July 1979), ratified by Law No. 1244 of 28 September 2000;
  - Agreement on the Conservation of Bats in Europe (London, 4 December 1991), as part of the Convention on Conservation of Migratory Species of Wild Animals (Bonn, 1979), ratified by Law No.1244 of 28 September 2000;
  - Agreement on the Conservation of African-Eurasian Migratory Water Birds (Hague, 16 June 1995), as part of the Convention on Conservation of Migratory Species of Wild Animals (Bonn, 1979), ratified by Law No. 1244 of 28 September 2000;
15. Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973), ratified by Law No.1246 of 28 September 2000;
16. European Landscape Convention (Florence, 2000), ratified by Law No.536 of 12 October 2001;
17. Convention on the Persistent Organic Pollutants (Stockholm, 2001), ratified by Law No.40 of 19 February 2004;
18. Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam, 10 September 1998), ratified by Law No.40 of 19 February 2004.

A national focal point has been appointed for coordinating the implementation of the requirements for each international treaty.

The Ministry of Agriculture, Regional Development and Environment (MoARDE) of the Republic of Moldova is the state authority vested with the power to develop and promote policies and strategies addressing agriculture, food production, food safety, regional and rural development, spatial planning, environment protection and climate change as well as natural resources.

On behalf of the Government, MoARDE is responsible for implementation of international environment treaties to which the Republic of Moldova is a Part (including the United Nations Framework Convention on Climate Change, signed by the Republic of Moldova on June 12, 1992, ratified by the Parliament on 16 March 1995<sup>1</sup>, as well as the Kyoto Protocol, ratified by the Republic of Moldova on 13 February 2003<sup>2</sup>, the official date of accession being April 22, 2003).

Within the Ministry of Agriculture, Regional Development and Environment, the State Secretary in the area of Environment Protection and Natural Resources used to act as the UNFCCC National Focal Point. At the moment, this position is held by the Head of Section on Air Protection and Climate Change Policies<sup>3</sup> of the MoARDE (the section consists of 4 public servants, a head of section and 3 specialist, inclusive one responsible for air protection policies, one for climate change policies and one for ozone layer protection policies).

Through the Government Decision No. 1574 as of 26.12.2003<sup>4</sup> it was established the “*National Commission for Implementing Provisions of the United Nations Framework Convention on Climate Change and Provisions and Mechanisms of Kyoto Protocol*”.

In conformity with Article 2 of its working regulations, the “*National Commission*” is the supreme authority in the Republic of Moldova responsible for implementation of the UNFCCC provisions, as well as the mechanisms and provisions of Kyoto Protocol.

The National Commission was vested with full authority to develop and promote policies and strategies under the Clean Development Mechanism (CDM) of the Kyoto Protocol.

Two public institutions were effectively involved in promoting projects under the CDM of the Kyoto Protocol since December 2003 to December 2018:

- The Climate Change Office, established through the Order No. 21 as of 11 February 2004 of the Minister of Ecology, Constructions and Territory Development of the Republic of Moldova, was the knowledge center in the field of climate change adaptation and mitigation policy analysis and national GHG inventories; and

<sup>1</sup> Official Gazette No. 23 of 27.04.1995. Parliament Decision No. 404 from 16.03.1995 on ratification of United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=306968>>).

<sup>2</sup> Official Gazette No. 48 of 18.03.2003. Law No. 29 from 13.02.2003 on adherence of the Republic of Moldova to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=313083>>)

<sup>3</sup> Ministry of Agriculture, Regional Development and Environment <<http://madrm.gov.md/ro/content/contacte>>

<sup>4</sup> Official Gazette No. 6-12 of 01.01.2004. GD No. 15747 from 26.12.2003 on establishing the National Commission for Implementing Provisions of the United Nations Framework Convention on Climate Change and Provisions and Mechanisms of Kyoto Protocol. (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=299618>>).

- The Carbon Finance Office, established through the Government Decision No. 899 as of 25.08.2005<sup>5</sup>, participated in some CDM projects implementation in the Republic of Moldova.

By the end of 2018 year, ten CDM project proposals have been developed, of which eight were registered by the CDM Executive Committee. It is to be mentioned that the Republic of Moldova does not have a carbon trading market and there is no dedicated budget for carbon reductions.

The Republic of Moldova signed an Association Agreement (AA)<sup>6</sup> with the EU on 27 June 2014, which has entered into force in September 2014. The Parliament of Moldova ratified the AA on 2 July 2014 through the Law No. 112 as of 02.07.2014<sup>7</sup>.

Article 95 from the Association Agreement (see Title IV “Cooperation in the economic sector and other sectors”, Chapter 17 “Climate policies”) specifically refers to the cooperation between the two Parties in the area of *climate change and ozone layer protection*.

At present the Republic of Moldova is working to fulfill its obligations under the AA and to converge further its legislation towards the *acquis communautaire* in the field of environment protection and climate change.

Chapter 17 “*Climate policies*” of the AA refers to a number of development areas, focusing on climate action in six specific areas: (i) Mitigation; (ii) Adaptation; (iii) Carbon trading; (iv) Research, development, deployment and other related aspects; (v) Mainstreaming of climate considerations into sector policies; (vi) Awareness raising, education and training.

In accordance with its obligations under the AA in the climate change area, through the Government Decision No. 1009 from 10.12.2014, it has been approved the Climate Change Adaptation Strategy of the Republic of Moldova until 2020 and the Action Plan for its implementation<sup>8</sup>, while through the Governmental Decision No. 1470 from 30.12.2016, it has been approved the Low-Emission Development Strategy (LEDS) of the Republic of Moldova until 2030 and the Action Plan for its implementation<sup>9</sup>.

In the same context, it is worth mentioning about the ADA/UNDP Project “Supporting Moldova’s National Climate Change Adaptation Planning Process”, implemented by the Climate Change Office within 2013-2017 periods with a total budget of US\$ 1.12 million.

The project aimed to ensure that the Republic of Moldova has a system and capacities in place for medium to long term adaptation planning and budgeting contributing to reduced vulnerability of the population and key sectors to the impacts of climate change by supporting Moldova to put in place its First National Adaptation Planning (NAP1) process contributing to and building upon existing development planning strategies and processes and to implement priority adaptation actions.

The project objectives were as following:

- (i) support RM in putting in place its National Adaptation Planning (NAP1) process building upon existing development planning strategies and processes and contributing to the implementation of priority adaptation actions;
- (ii) develop the institutional and policy framework for medium to long-term gender-sensitive adaptation planning and budgeting;
- (iii) strengthen the institutional and technical capacities for iterative development of comprehensive NAP; and
- (iv) implementation of adaptation interventions in priority sectors, including demonstration projects at the local level and catalyze their replication and extension.

The main accomplishments of the respective project were as following:

<sup>5</sup> Official Gazette No. 117-118 of 02.09.2005. GD No. 899 from 25.08.2005 on establishing the Carbon Finance Office (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=305384>>).

<sup>6</sup> Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Moldova, of the other part (OJ L 260, 30.8.2014, p. 4–738) (<[http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0830\(01\)&rid=4](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0830(01)&rid=4)>).

<sup>7</sup> Official Gazette No. 185-199 of 18.07.2014. Law No. 112 from 02.07.2014 on ratification of the Association Agreement between the Republic of Moldova, on one side, and the European Union and European Community of Atomic Energy and its Member States, on the other side (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=353829>>).

<sup>8</sup> Official Gazette No. 372-384 of 19.12.2014. GD No. 1009 from 10.12.2014 regarding the approval of the Republic of Moldova’s Strategy for Adaptation to Climate Change by 2020 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=355945>>).

<sup>9</sup> Official Gazette No. 85-91 of 24.03.2017. GD No. 1470 from 30.12.2016 regarding the approval of the Low-Emission Development Strategy of the Republic of Moldova until 2030 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=369528>>).

- (i) extensive support was provided to the MoARDE in preparing the draft Government Decision on establishment of the cross-sectoral multi-stakeholder climate change coordination mechanism, including monitoring & verification framework on climate actions and budgets;
- (ii) Climate Change Adaptation (CCA) Actions were mainstreamed into 4 sectors resulting in the Forestry Sector Adaptation Strategy, Health Sector Adaptation Strategy and CCA recommendations were made available for the Transport and Energy sectors;
- (iii) CCA actions were incorporated into the approved Republic of Moldova's Gender Equality Strategy until 2020 and the Action Plan for its implementation;
- (iv) appropriate actions and guidelines were developed to advocate for CCA mainstreaming into the Republic of Moldova's national budgeting process;
- (v) mainstreaming of CCA into district level socio-economic development strategies was ensured in Singerei, Falesti, Nisporeni, Calarasi, Basarabeasca and Leova;
- (vi) innovative adaptation pilot projects were piloted in 7 districts of the Republic of Moldova covering the sectors of energy, agriculture and water;
- (vii) data management and the quality of the meteorological and hydrological services of State Hydrometeorological Service (SHS) were improved through advanced training courses on weather performance analysis, forecasting and now casting methods, user of the radar and satellite operational images and use of numerical models, and also through the upgraded website of the SHS;
- (viii) extensive support was provided to the SHS to become a member of EUMetNet network – an online platform for Europe's national weather services, supporting the national early warning capacity.

Another relevant project implemented by the Climate Change Office as the national execution agency within the 2013-2016 periods was the EU/UNDP Global Project “Low-Emission Capacity Building Project – Republic of Moldova” (hereafter referred to as LECBP) with a total budget of US\$ 642,000. The Republic of Moldova was one of 11 phase II countries participating in a collaborative “Low Emission Capacity Building Programme” focused on capacity building for climate change over a five-year period.

In the Republic of Moldova, the overall programme have had three objectives focused on strengthening the national capacities to do the following:

- (i) develop greenhouse gas inventory management systems;
- (ii) formulate Nationally Appropriate Mitigation Actions (NAMAs) and Low-Emission Development Strategies (LEDS) in the context of national development; and
- (iii) design MRV systems to support implementation and evaluation of NAMAs and LEDS.

Under the component one of the LECBP it has been developed the draft Governmental Decision on establishing the National System for Monitoring and Reporting (NSMR) GHG Emissions and Other Information Relevant to Climate Change (approved by the Government on 26 December 2018 through the Governmental Decision No. 1277); also, based on the US EPA Template Workbook “Developing a National GHG Inventory System”<sup>10</sup>, it has been developed the “Report on the National GHG Inventory System of the Republic of Moldova – 2015”, submitted on 5 April 2016 to the UNFCCC as the second technical annex of the BUR2 of the RM under the UNFCCC; there were also undertaken two peer-reviews of the national GHG inventory for 1990-2013 time series; in addition, there were organized a range of targeted training workshops provided to the national institutions and their inventory experts, specifically in the Energy and LULUCF sectors.

Under the component two of the LECBP, there was developed the draft LEDS of the Republic of Moldova until 2030 and the Action Plan for its implementation (approved by the Government on 30.12.2016); also, aiming at achieving overall and specific objectives of the LEDS, a comprehensive list of Nationally Appropriate Mitigation Actions (technologies and/or measures) were identified for the following sectors: Energy, Transport, Buildings, Industry, Agriculture, LULUCF and Waste,

<sup>10</sup> US EPA Template Workbook “Developing a National GHG Inventory System” <[www.epa.gov/climatechange/emissions/ghginventorycapacitybuilding](http://www.epa.gov/climatechange/emissions/ghginventorycapacitybuilding)>

prioritized by applying Multi-Criteria Decision Analysis (MCDA), from which there were developed 12 full NAMA proposals, which have been registered in 2017 in the UNFCCC's NAMA Register<sup>11</sup>.

Under the component three of the LECBP, it has been developed a draft proposal for the institutional framework for LEDS and NAMA's MRV system in the RM, intended to be approved through a Governmental Decision (currently under consideration).

In September 2015, at the 21<sup>st</sup> Conference of Parties in Paris, the RM presented its ambitious targets for reducing GHG emissions by 2030, expressed in the Intended National Determined Contribution (INDC). The 21<sup>st</sup> Conference of the Parties approved and submitted for signing and ratification a new international treaty, which came to take over the activities of the Kyoto Protocol and which was named the Paris Agreement of the United Nations Framework Convention on Climate Change.

The Paris Agreement, which was adopted at COP 21 in December 2015 and entered into force in November 2016<sup>12</sup>, aims to strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty, including by holding the increase in the global average temperature well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, increasing the ability to adapt to impacts of climate change, and making finance flows consistent with a low GHG emissions and climate-resilient development<sup>13</sup>.

With entry into force of the Paris Agreement, the global community has entered a new era of climate action with an emphasis on implementation in all countries with transparency. Action from both developed and developing countries is needed.

Each Party is to put forward every five years a Nationally Determined Contribution (NDC) that it intends to achieve. Every five years, a global stocktake will assess the collective progress towards achieving the purpose of the Agreement and its long-term goals. The outcome of the global stocktake is to inform the preparation of future NDCs.

Further, the Agreement includes provisions on finance, technology, and capacity-building to support action by developing countries and the most vulnerable countries. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

Implementation of the Paris Agreement can contribute to the achievement of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs).

Adverse impacts from climate change can undo the progress made in development and exacerbate threats such as food and water scarcity, ocean acidification, disproportionately burdening the poorest and most vulnerable. Beyond SDG 13: Climate Action, a transformation to low-emission, climate-resilient pathways can contribute to achieving and preserving the other SDGs such as SDG 2: Zero Hunger, SDG 7: Affordable and Clean Energy, SDG 9: Industry, Innovation and Infrastructure, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production, SDG 14: Life Below Water and SDG 15: Life on Land.

The Republic of Moldova signed the Paris Agreement on 21 September 2016 at the 71<sup>st</sup> session of the UN General Assembly and ratified it on 4 May 2017<sup>14</sup>. In accordance with the Regulation on the mechanism for the conclusion, enforcement and termination of international treaties<sup>15</sup>, this Agreement entered into force on 20 July 2017.

Aiming at implementing the National Determined Contribution (NDC), on 24 March 2017 the Low Emissions Development Strategy of the Republic of Moldova until 2030 and the Action Plan for its implementation came into force.

Based on a study of the low carbon economic development constraints, the LEDS provides an integral vision over the change in Moldovan economic development paradigm in the medium and long term

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<sup>11</sup> <<http://www4.unfccc.int/sites/nama/SitePaGHG/NamaImplementation.aspx>>

<sup>12</sup> As of January 2019, 184 of the 197 Parties to the Convention Parties have ratified the Paris Agreement (<<https://unfccc.int/process/the-paris-agreement/status-of-ratification>>).

<sup>13</sup> "Paris Agreement". United Nations Treaty Collection. 8 July 2016.

<sup>14</sup> Official Gazette No. 162-170 of 26.05.2017. Law No. 78 from 04.05.2017 on ratification of the Paris Agreement of the United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=370323>>).

<sup>15</sup> Official Gazette No. 190-196 of 24.07.2015. GD No. 442 from 17.07.2015 regarding the approval of the Regulation on the mechanism for the conclusion, enforcement and termination of international treaties (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=360015>>).



run towards a green economic development. The approach set out in the strategy looks to increase financial coverage to promote adequate GHG mitigation policies in the national economy without compromising economic growth.

The overall objective of LEDS is the same as the one set out in the National Determined Contribution for the Paris Agreement.<sup>16</sup> According to this objective, the Republic of Moldova committed to achieve the unconditional target of 64-67% of GHG emissions reduction by 2030 relative to the reference year level (1990). The 64% reduction complies with the energy system development scenario under which the domestic electricity consumption can be fully covered by its own generation sources, while the 67% reduction implies the need for up to 30% electricity imports. The commitment to reduce GHG emissions could potentially increase to 78% provided the availability of low-cost financial resources, technology transfer and multilateral technical cooperation, accessed to the extent global climate change challenge.

The overall target until 2030 is supported by interim targets set for 2020 and 2025, including by sectors. The GHG emission reduction targets set in the LEDS for 2020 are in line with those planned in the 2014-2023 Environmental Strategy and the Action Plan for its Implementation<sup>17</sup>, the second normative act of the Republic of Moldova expressly stating the state policy on combating greenhouse gas emissions.

The LEDS interim targets provide for reducing total GHG emissions by at least 65% (by 2020) and 69% (by 2025), respectively, relative to 1990 levels. These targets can be enhanced with greater financial support through international mitigation mechanisms planned to be developed and approved within UNFCCC.

Aiming at achieving overall and specific objectives of the LEDS, Nationally Appropriate Mitigation Actions (technologies and/or measures) were identified for the following sectors: Energy, Transport, Buildings, Industry, Agriculture, LULUCF and Waste.

Actions were divided into three categories:

- (1) *Unilateral*: mitigation actions undertaken by the country on its own account;
- (2) *Supported*: mitigation actions supported by funding, technology transfer and capacity building by the UNFCCC Annex I countries; and
- (3) *Credited*: mitigation actions that can generate credits for the carbon market.

According to the LEDS, the NDC unconditional target can be achieved by implementation of 44 NAMAs, while the conditional target – by implementation of 22 NAMAs, 12 of which are registered in the UNFCCC's NAMA Register<sup>18</sup>. The largest contribution towards the NDC conditional target is expected to be accomplished through the financial mechanisms of the Paris Agreement, including the Green Climate Fund (GCF).

Starting February 2018, the Republic of Moldova is developing the GCF Country Program. This activity is carried out within the framework of the Project “*Support to the Republic of Moldova in establishment and strengthening the NDA, development of strategic framework, and preparation of country programme*” (December 2017 – October 2019) (hereafter referred to as Readiness and Preparatory Support Project or RPSP), with a total budget of US\$ 300,000.

The focus of RPSP in the Republic of Moldova is presented in more details below:

- Under activity area 1 of RPSP, consultancy services will be procured to build the knowledge and capacity of the Ministry of Agriculture, Regional Development and Environment staff on GCF operation in order to fulfill its National Designated Authority (NDA) role, coordinate across stakeholders and facilitate effective consultation and communication.

The key sub-activities to be implemented under the activity area 1 are as following:

- i. capacity building of NDA to fulfil its obligations under GCF; development of operational guidelines for the functioning of NDA;

<sup>16</sup> <<https://www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx>>

<sup>17</sup> Official Gazette No 104-109 of 06.05.2014, GD No. 301 from 24.04.2014 regarding the approval of the Environmental Strategy for 2014-2023 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=352740>>)

<sup>18</sup> <<http://www4.unfccc.int/sites/nama/SitePaGHG/NamaImplementation.aspx>>



- ii. setting up and operationalization of country-driven, gender-sensitive and participatory coordination mechanism for multi-stakeholder engagement and appropriate M&E for oversight of GCF activities, secure projects outcomes and manage risks;
  - iii. operationalization of the no objection procedure through the coordination mechanism for reviewing the proposals to ensure consistency with the national climate strategies and to provide for effective access to GCF funding;
  - iv. setting up of on-line communication platform for discussion and dissemination of informational and awareness-raising materials related to GCF activities;
- Under activity area 2 of RPSP, consultancy services will be procured and events organized to engage stakeholders in identifying priorities for collaboration with GCF, produce country programme document aligned with initial guidance from the Fund.

The key sub-activities to be implemented under activity area 2 are as following:

- i. stocktaking of existing national and sectoral policies, other planning documents for development of GCF specific strategic framework;
- ii. undertaking of multi-stakeholder consultation process to identify and validate climate change priority investments areas and formulate the country programme;
- iii. development of prioritizing criteria of project/programmes; participatory review of GCF portfolio in the Republic of Moldova organized;
- iv. communication and dissemination of related to country programme information materials; developed under the RPSP, the procedures and standards will be formulated and adopted through a Government Decision that will mandate NDA to effectively operationalize GCF projects in the RM.

It is worth mentioned also the Program Promoting the Green Economy in the Republic of Moldova for the years 2018-2020 and the Action Plan for its Implementation, approved through the Governmental Decision no.160/2018<sup>19</sup>, which integrates the priorities of promoting the green economy according to the Final Declaration of the United Nations Conference on Sustainable Development “The Future We Want” (Rio de Janeiro, 20-22 June 2012) and the provisions of the National Development Strategy “Moldova 2030”, approved by the Government on 8 November 2018<sup>20</sup> and by the Parliament on 14 December 2018<sup>21</sup>.

The aim of the Program is to promote the implementation of the green economy principles in the Republic of Moldova in harmony with economic development and social welfare. The implementation of the Program ensures the development of the necessary capacities of all those involved in the planning activities providing the following specific objectives are implemented by 2020:

- 1) ensuring the conditions for good governance and strengthening the institutional and management potential of promoting the “green” economy by 30% nation-wide;
- 2) ensure the promotion of measures aimed at implementing the green economy principles so that 17% of gross final consumption of energy would be covered by renewable sources and energy efficiency would be improved by 8.2%;
- 3) ensure the green development of about 30% small and medium enterprises by adequately supporting implementation of the green economy principles;
- 4) ensure the promotion of organic farming by implementing green economy principles and extending the area of farmlands used for organic farming by about 20%;
- 5) reduce air pollution by 30% by developing sustainable transport;

<sup>19</sup> Official Gazette No. 68-76 of 02.03.2018. GD No. 160 of February 21, 2018 regarding the approval of the “green” economy promotion program in the Republic of Moldova for the years 2018-2020 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=374523>>).

<sup>20</sup> Official Gazette No 424-429 of 16.11.2018. GD No. 1083 from 08.11.2018 regarding the approval of the draft Law on approval of the National Development Strategy

“Moldova 2030” (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=377985>>).

<sup>21</sup> <<https://cancelaria.gov.md/en/content/national-development-strategy-moldova-2030-parliament>>.

- 6) ensure promotion of measures aimed at implementing the “green” economy principles in construction by 15%;
- 7) ensure implementation of the resource efficiency and cleaner production principles in about 30% of enterprises and organizations;
- 8) ensure at least 15% of all public procurement comply with sustainable procurement criteria;
- 9) increase the level of knowledge about green economy and sustainable development among students by at least 30%;
- 10) raise public awareness of the green economy and sustainable development by at least 30%;
- 11) create a “green” growth indicator monitoring system.

It is to be mentioned in the context of promoting the green economy in the Republic of Moldova, that the objective of the GEF/UNDP Project “ESCO Moldova”, implemented within 2014-2018 periods, with a total budget of US\$ 1.45 million, was to create a functioning, sustainable and effective ESCO market in the Republic of Moldova by converting existing energy service provider companies into ESCO companies, as the basis for scaling up mitigation efforts in the whole municipal building sector in the country, leading to CO<sub>2</sub> emission reductions by implementing energy performance contracts.

The main accomplishments of the ESCO project in the Republic of Moldova were as following:

- (i) awareness about the ESCO mechanism increased;
- (ii) a number of 10 potential companies to provide ESCO services identified and trained;
- (iii) a financing mechanism ready to finance ESCO projects was established;
- (iv) 20 buildings screened and preselected for project implementation;
- (v) 10 investment grade audits performed and cases prepared for public procurement procedures; and
- (vi) a template of Energy Performance Contract prepared, presented and endorsed with the major stakeholders.

In the same context of promoting the green economy in the country, it is worth mentioning another successful project implemented in the Republic of Moldova within 2011-2018 years, including phase I (2011-2014) with a total budget of 14.56 million Euro and phase II (2015-2018) with a total budget of 9.46 million Euro.

Thus, the EU funded Project “Moldova Energy and Biomass”, implemented by UNDP, aimed to contribute to a more secure, competitive and sustainable energy production in the Republic of Moldova from biomass sources, the most readily available renewable energy source in the country.

The project increased the use of energy from biomass sources, thus contributing to both, a more secure, competitive and sustainable energy production and local development. The target communities produce their own energy, which resulted in the creation of new businesses and jobs, and not least, in a better protection of our environment for future generations.

Through the most relevant accomplishments of project phase I, the following should be mentioned:

- (1) 26 villages have been selected to connect their public institutions to alternative biomass heating systems;
- (2) modern biomass heating systems are being installed in 143 public buildings, such as schools, kindergartens, community centers;
- (3) more than 89.000 people, including 26.519 children, benefit from securely supplied energy and more heating comfort;
- (4) the new biomass heating systems led to the creation of more than 300 new jobs, as well as to the launch of tens of new businesses producing biomass fuel in the form of pellets and briquettes;
- (5) 5.590 representatives of the local public administration and local leaders, 492 suppliers of biomass fuels and 432 operators have got knowledge and new abilities regarding the modern technologies of production and usage of biomass to produce heat;
- (6) 1 million Euro was provided for the purchase of biomass fuel production and processing equipment through a leasing mechanism;
- (7) 30 local entrepreneurs already benefited from this program and received the briquetting, pelleting, grinding and balling equipment for the biomass;

- (8) more than 600 families are able to purchase modern biomass boilers, 1,300 EUR of the investment costs being reimbursed through project funds; more than 100 applications were already registered and at the moment are in the process to be financed;
- (9) a pilot project in the co-generation field on agricultural biomass was financially supported to demonstrate the feasibility in the use of the advanced technologies with the purpose of obtaining local energy resources;
- (10) a pilot project in the field of generating and distribution of biomass based heat to the public institutions services was co-financed and launched in Leova district; the scope of the activity is the promotion of some new ways of development of the local markets in using the biomass in energy purposes;
- (11) more than 20,000 school students learned about renewables and energy efficiency;
- (12) three editions of Moldova Eco-Energetica Award ceremony in the field of renewable energy sources and energy efficiency were successfully organized;
- (13) the general public, central and local public authorities and the private sector are well informed about the opportunities and benefits of renewable energy in general and biomass energy specifically for the Republic of Moldova.

The most relevant accomplishments of project phase II were as following:

- (1) 9 biomass heating systems and 49 solar hot water systems installed in public institutions;
- (2) 121 schools, kindergartens, community centers, hospitals have modern biomass heating systems;
- (3) more than 108,000 people benefit from enhanced green heating comfort;
- (4) 262 new green jobs created;
- (5) 523 private household and small businesses heat their premises with green energy thanks to the subsidy programme launched by EU/UNDP "Energy and Biomass" Project;
- (6) 30 local companies assemble or manufacture biomass boilers and offer them to the customers;
- (7) first testing laboratory for physical and chemical parameters of biofuels received accreditation;
- (8) Public Private Partnership for the provision of the bioenergy services launched in 2 districts (Ungheni & Nisporeni);
- (9) remote system for the monitoring of the biomass heating plants developed;
- (10) more than 4.000 project beneficiaries, including 3.215 women, trained (local public authorities, mayors, managers of institutions, operators, entrepreneurs);
- (11) first training center for biomass boiler operators opened with more than 200 beneficiaries so far;
- (12) Biomass Boilers Operators & Foresters specialized in energy plants: new course launched in 3 vocational schools;
- (13) 104 schools became part of the educational initiative on renewable energy sources and energy efficiency;
- (14) 5,000 students have better knowledge about the renewables and energy efficiency;
- (15) 200 children participated at the ENERGEL Summer School;
- (16) Biomass Energy Cluster and Bioenergy Association were launched;
- (17) [www.piata-biomasa.md](http://www.piata-biomasa.md): web platform to connect biomass energy producers and consumers launched and continuously updated;
- (18) [www.biomasa.md](http://www.biomasa.md): web platform to ensure the transparency of the Project's activities and the visibility of its results launched and continuously updated;
- (19) 4 editions of SUN Da-I Fest – solar powered concert & exhibition of green technologies – organized;
- (20) integrated communication campaign implemented; and
- (21) the general public, central and local public authorities, and the private sector, are well informed about the opportunities and benefits of renewable energy in general and biomass energy specifically for the Republic of Moldova.

As already mentioned above, the main strategic planning document of the country – the National Development Strategy "Moldova 2030" (NDS), was considered by the Parliament on 14 December

2018 (it is not yet approved). The strategy sets long-term sectorial development priorities, focusing on improving the quality of citizens' lives. It aims to focus the public policies of the Republic of Moldova on the problems, interests and needs of the people, being in line with the 2030 Agenda for Sustainable Development and the EU-Moldova Association Agreement.

The NDS “Moldova 2030” set for the basic 4 pillars of sustainable development (sustainable and inclusive economy; robust human and social capital; efficient and honest institutions; and healthy and safe environment) with 10 long-term objectives:

- The 1<sup>st</sup> pillar concerns the sustainable and inclusive economy and aims to increase people's access to infrastructure, public utilities and living conditions, as well as increasing income from sustainable sources and mitigating economic inequalities;
- As regards the 2<sup>nd</sup> pillar, the robust human and social capital, it provides for quality education for everyone, ensuring a solid and inclusive social protection system, and ensuring a balance between work and family;
- The 3<sup>rd</sup> pillar is focusing on making the institutions more efficient and fairer, being a pillar that will ensure effective governance, as well as promote a peaceful and secure society;
- The 4<sup>th</sup> pillar is to ensure the fundamental right to a healthy and safe environment for citizens.

For each of the ten objectives, the current situation was analyzed, the most vulnerable groups in society were highlighted, the basic factors of the vulnerability of the people were analyzed, the strategic vision, the specific objectives and the priority actions were formulated, the expected impact was described and, indicators and monitoring and evaluation targets were set.

With reference to the 4<sup>th</sup> pillar of the NDS “Moldova 2030” and the 10<sup>th</sup> objective – “*ensuring the fundamental right to a healthy and safe environment for citizens*”, in the context of *climate change*, it is envisaged the creation of an integrated system for air quality management and reduction of the greenhouse gases and pollutant emissions and the implementation of climate change adaptation and mitigation measures.

Under this objective there will be also considered such measures as land afforestation and sustainable management of land use categories, which would contribute to the reduction of soil degradation and would improve the quality and the amount of water resources, and would contribute to the community's development at local level by providing ecosystem type of services.

It is envisaged also promoting the principles of the green economy that would contribute to the efficient use of resources and energy, the application of cleaner technologies in all economic sectors, with low carbon and pollutant emissions and minimization of environmental risks.

The green economy is considered as a new growth economic model, a generator of decent jobs and a vital strategy for eliminating the poverty. To stop the degradation of the environment, it is envisaged the mobilization of the society and stimulating participation of population in the ecosystem's conservation actions, as well as the integrating the principles of environmental protection, sustainable development, green economy development and adaptation to climate change, in all sectors of the national economy.

According to the 10<sup>th</sup> objective of the NDS “Moldova 2030”, by promoting a harmonious coexistence with nature, it would be possible creating an environment-friendly society.

The NDS “Moldova 2030” was elaborated with the support of the development partners through an extensive participatory exercise, being the result of ten inter-ministerial working groups activity, including representatives of the local public administration, civil society organizations active in the field, the business environment and academia. The strategy will allow the country to implement in time and efficient manner 2030 Agenda for Sustainable Development and the EU-Moldova Association Agreement.

It is to be mentioned also that through the Government Decision No. 549 as of 13.06.2018 on creation, organizing and functioning of the Environment Agency<sup>22</sup>, the latter has been recently assigned with

<sup>22</sup> Official Gazette No. 210-223 of 22.06.2018. GD No. 549 from 13.06.2018 on creation, organizing and functioning of the Environment Agency (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=375961>>).

the following competencies in the field of *air protection and climate change*:

- implementing the provisions of policy documents and international environmental treaties to which the RM is a part in the field of protection of atmospheric air quality and ozone layer, *GHG emissions reductions and adaptation to climate change*, the elaboration and presentation to the MoARDE of information on their implementation (point 9 (2), let. c);
- participation to the works of the *National Commission for Climate Change* (point 9 (2), let. j) (*the National Commission for Climate Change is to be created in 2019 and will take over the functions and responsibilities of the National Commission for the implementation of the UNFCCC provisions on climate change as well as the provisions and mechanisms of the Kyoto Protocol*);
- ensuring the implementation of the *monitoring, reporting and verification (MRV) system for GHG emissions* (point 9 (2), let. k);
- performing the *process of collecting, centralizing, validating and processing data and required information for the inventories and reports on atmospheric pollutants and GHG emissions* (point 9 (2), let. l);
- providing technical support to MoARDE for the development of *national communications and biennial update reports* according to UNFCCC provisions (point 9 (2), let. o).

As mentioned already above, on 26 December 2018 it has been established through the Governmental Decision No. 1277, the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change<sup>23</sup>. The Environment Agency has been designated as the national authority responsible for NSMR management and implementation.

Through establishing the NSMR it has been created the legal framework for enforcement the Article 15 of the Law No. 1515 as of 16 June 1993 on Environmental Protection<sup>24</sup>, the implementation of the provisions of the United Nations Framework Convention on Climate Change ratified by Parliament Decision No. 404 as of 16 March 1995<sup>25</sup>, the provisions of the Kyoto Protocol to which the Republic of Moldova joined by Law No. 29 as of 13 February 2003<sup>26</sup>; the provisions of the Association Agreement the Republic of Moldova – European Union (see Chapter 17 “Climate policies”), ratified through the Law No. 112 as of 02.07.2014<sup>27</sup>, and the provisions of the Environment Strategy for 2014-2023 and the Action Plan for its implementation, approved by the Government Decision No. 301 as of 24 April 2014<sup>28</sup>. By creating the NSMR it was also partially transposed the Regulation (EU) No. 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information relevant to climate change at national and Union level and for repealing Decision No. 280/2004/EC<sup>29</sup>.

By the end of 2018 year, under the MoARDE there were activating eight public institutions / legal entities created within the period since 1998 to 2010 with the purpose to enable the implementation of the financial and technical assistance projects in various areas of responsibility in the field of environment protection and use of natural resources (i.e., Ozone Office; Biodiversity Office; Climate Change Office; Carbon Finance Office; Environmental Pollution Prevention Office; Biosecurity Office; Environmental Projects Consolidated Implementation Unit; and the Public Institution “Persistent Organic Pollutants Sustainable Management Office”).

In order to streamline the management of financial and technical assistance projects in the field of environmental protection and use of natural resources, following the stipulations of art. 7, let. b) and

<sup>23</sup> Official Gazette No. 38-47 of 08.02.2019. GD No. 1277 from 26.12.2018 on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change <<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=379061>>.

<sup>24</sup> Gazette of the Parliament of the Republic of Moldova No. 10 of 01.10.1993. Law No. 1515 from 16.06.1993 on Environmental Protection (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=311604>>).

<sup>25</sup> Official Gazette No. 23 of 27.04.1995. Parliament Decision No. 404 from 16.03.1995 on ratification of United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=306968>>).

<sup>26</sup> Official Gazette No. 48 of 18.03.2003. Law No. 29 from 13.02.2003 on adherence of the Republic of Moldova to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=313083>>).

<sup>27</sup> Official Gazette No. 185-199 of 18.07.2014. Law No. 112 from 02.07.2014 on ratification of the Association Agreement between the Republic of Moldova, on one side, and the European Union and European Community of Atomic Energy and its Member States, on the other side (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=353829>>).

<sup>28</sup> Official Gazette No. 104-109 of 06.05.2014. Government Decision No. 301 from 24.04.2014 on approval of the Environment Strategy for 2014 – 2023 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=352740>>).

<sup>29</sup> Official Journal of the European Union L 165/13, 18.6.2013, p. 13–40, <<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0525&from=EN>>.

e) of the Law No. 136 on Government<sup>30</sup> and art. 32 of the Law No. 98 on specialized central public administrations<sup>31</sup>, seven legal entities (i.e., Climate Change Office, Carbon Finance Office, Environmental Pollution Prevention Office, Ozone Office, Biodiversity Office, Biosecurity Office and Environmental Projects Consolidated Implementation Unit) set out in Annex No. 1 to the Government Decision No. 1249 as of 19.12.2018 on organization and functioning of the Public Institution “Environmental Projects Implementation Unit”<sup>32</sup> have been reorganized through absorption by the Public Institution “Persistent Organic Pollutants Sustainable Management Office”. The new created Public Institution “Environmental Projects Implementation Unit” (hereinafter referred to as PI “EPIU”) is the successor of rights and obligations of all above mentioned reorganized legal entities.

The above-mentioned Government Decision No. 1249 entered into force on 01.01.2019. It is envisaged that all financial and technical assistance projects implemented by the reorganized legal entities, in progress at the date of entry into force of respective decision, will continue be carried out by the new created PI “EPIU” in accordance with the provisions of the Project Cooperation Agreements (PCA).

The PI “EPIU” has the mission to support the MoARDE and other institutions within its sphere of competence (environment protection and use of natural resources) (i.e., Environment Agency, Inspectorate for Environment Protection, Moldsilva Agency, Agency “Moldavian Waters” (Apele Moldovei), State Hydrometeorological Service, etc.), to efficiently implement the external and internal financial and technical assistance projects, in accordance with the provisions of the national normative acts regarding the implementation of the requirements of the international conventions to which the Republic of Moldova is a Party and the alignment with the international standards in the field of environmental protection.

The areas of competence of the PI “EPIU” are as follows:

- (1) preventing environmental pollution;
- (2) protection of atmospheric air, ozone layer and combating climate change;
- (3) water resource management;
- (4) conservation of biodiversity and management of state-protected natural areas;
- (5) waste and chemical management; and
- (6) biosecurity.

The basic functions of PI “EPIU” are the following:

- (1) the efficient implementation of financial and technical assistance projects in the areas of competence in accordance with the established objectives;
- (2) the supervising and verifying the quality of the works and services provided within the set deadlines;
- (3) managing the funds allocated to projects in the areas of competence in accordance with the grant agreements and/or of the project cooperation agreements and approved project budgets;
- (4) granting the founder (MoARDE) support in the elaboration of the project proposals in the areas of competence;
- (5) developing and presenting progress reports on projects implementation and use of projects funds.

In order to carry out its basic functions, the PI “EPIU” exercises the following rights:

- (1) to manage financial resources, dispose, use and manage their own patrimony in accordance with the approved budgets and institution goals;
- (2) to plan and carry out the financial activities according to the activity plans approved by the Steering Committee;
- (3) to contract national/international consultants, suppliers of works and services providers.

<sup>30</sup> Official Gazette No. 252 of 19.07.2017. Law No. 136 from 07.07.2017 on Government (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=370935>>).

<sup>31</sup> Official Gazette No. 160-164 of 03.08.2012. Law No. 98 from 04.05.2012 on specialized central public administrations (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=344256>>).

<sup>32</sup> Official Gazette No. 513-525 of 28.12.2018. Governmental Decision No. 1249 from 19.12.2018 on organization and functioning of the Public Institution “Environmental Project Implementation Unit” (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=378646>>).

The governing bodies of the PI “EPIU” are the Steering Committee (hereinafter referred to as the SC) and Director (executive body). The SC manages and supervises the work of the PI “EPIU”.

The SC exercises the following powers:

- (1) monitors and evaluate the activity of PI “EPIU” and, to that end, takes decisions;
- (2) approve the activity work plans and internal regulations of PI “EPIU”, and monitor the effectiveness of their execution;
- (3) selects, by competition, the PI “EPIU” Director, based on a regulation approved by the SC, and presents the request for the appointment by the MARDE of the selected person;
- (4) approves the organizational structure and the institution limit staff according to its needs;
- (5) examines and approves the annual budget;
- (6) examines the financial reports of the PI “EPIU”;
- (7) takes decisions on ensuring the transparency of procurement procedures for goods, works and services;
- (8) creates, in the support of the SC, technical working groups, which have an advisory role and report to the SC for a proper decision-making on the implemented projects;
- (9) review and approve the annual and final reports on projects implementation progress and present them to the MARDE and donors;
- (10) selects and coordinates with creditors & donors, the audit entity that will perform the projects audits and submits to MARDE for confirmation of the selected audit entity;
- (11) examine the auditor's report, make decisions on the auditor's findings, and present them to the MARDE and the donors for, as per terms and conditions set out in the assistance agreements and/or in project cooperation agreements;
- (12) approves the attraction of additional financial means necessary to ensure the activity of PI “EPIU”;
- (13) decide on other issues raised by the Director of PI “EPIU”.

The Steering Committee is composed of 5 members and is appointed for a period of 4 years. The nominal membership of the SC is established by an Order of the Minister of Agriculture, Regional Development and Environment, including at least a representative, in the field of competence of the PI “EPIU”, of the State Chancellery, the Ministry of Finance, the Ministry of Agriculture, Regional Development and Environment and/or of the Environment Agency, and of the civil society.

At least one SC member must have experience in economic and/or legal matters. The position of Chairman of the Steering Committee is exercised by the State Secretary in the field of Environment Protection and Natural Resources of MoARDE, who chairs the meetings of the SC and carry out other duties set out in the SC terms of reference. In the absence of the Chairman, the meeting shall be chaired by one of the SC members, elected from the members attending the meeting.

The members of the Steering Committee shall attend the meetings of the SC personally and shall be personally responsible for the decisions taken.

The members of the SC have the right of access to any information regarding the activity of PI “EPIU”, respecting the confidentiality principle and the provisions of the normative acts on the protection of personal data; and have the obligation to participate in the SC meetings and to contribute to the fulfillment of its functions and attributions.

The SC meets as and when necessary, but not less than once in quarter, and convenes on the initiative of the Chairman. The Director of PI “EPIU” may propose to the SC Chairman to convene it whenever necessary.

Decisions of the SC shall be adopted by a majority of SC members present at the meeting. In the case of parity of votes, the vote of the SC Chairman is decisive.



Decisions of the SC shall be recorded in the minutes of the meeting, signed by the members attending the meeting and countersigned by the SC secretary.

The minutes of the meeting shall include, at least, the subjects examined at the meeting, the list of attending and absent members, other participants of the meeting, the speeches at the meeting participants and the result of voting on each item on the agenda.

The activity as a member of SC and technical groups is not remunerated. Depending on the subjects examined, representatives of donors and development partners may be invited to the SC meetings without the right to vote. If the SC deliberates on the subjects for potential financial and technical assistance, the representatives of potential donors may be invited to the meeting.

The secretariat work is carried out by the SC secretary, who is appointed by the SC, on the proposal from its Chairman. The function of SC secretary is exercised by a PI "EPIU" employee.

The executive role of the PI "EPIU" is managed by the Director, who is selected following a competition organized by the SC.

The procedure for conducting the competition is approved by the SC. The selected Director is appointed and dismissed by the MARDE on the basis of the SC's request.

The mandate of the Director is 4 years, with the possibility of renewal, and acts on the basis of the individual labor contract.

The Director must be a citizen of the Republic of Moldova, has higher education and extensive experience in projects management and/or implementation, be fluent in Romanian and English languages.

Director of PI "EPIU" has the following functions:

- (1) manages, organizes and coordinates the activity of PI "EPIU";
- (2) represents the PI "EPIU" in relations with the state, national and international organizations and institutions, donors, other legal and physical entities and project beneficiaries;
- (3) acts on behalf of PI "EPIU" without a mandate and represents its interests in relations with legal entities governed by public or private law;
- (4) ensure the elaboration and submission to the SC for approval of the PI "EPIU" annual budget;
- (5) ensure the execution of the SC's decisions;
- (6) coordinate the elaboration process and submit to the SC for approval the PI "EPIU" organizational structure, organization chart and staff limit or the number of the authorized staff positions;
- (7) engage, modify, suspend and terminate employment with PI "EPIU" staff in accordance with the organizational structure and staff limit approved by the SC;
- (8) concludes contracts with private and public legal entities, consultants, executors of works, suppliers of goods and service providers, to ensure the accomplishment of the PI "EPIU" tasks;
- (9) approves enrollment scheme and job descriptions (terms of reference) for PI "EPIU" staff;
- (10) approves the composition of commissions for procurement of goods, works and services;
- (11) ensure the integrity, maintenance and efficient management of PI "EPIU" patrimony;
- (12) ensure, within 120 days from the end of each management year, the placement on the official website of the institution of the: information about the members of the SC (name, surname, position); and information on implemented projects, containing at least: the list of implemented projects, disaggregated into expired ones and which are implemented at the moment of reporting; project type (technical assistance or financial assistance), duration of the project, name of the donor, total project budget and the project budget executed by the reporting date, the degree of execution of the tasks, the project executors;
- (13) attends SC meetings without the right to vote;
- (14) perform other duties delegated by the MoARDE and the SC regarding the activity of PI "EPIU", as well as other functions as provided in its regulation.

The PI “EPIU” personnel consists of staff with permanent and temporary positions. Permanent staff include the Director, a legal adviser (including the human resource function) and a financial management specialist (including the chief accountant position), who are remunerated partly from the state budget's financial resources and partly from financial resources allocated by donors.

Temporary staff are contracted as necessary for a fixed duration, depending on the complexity and the necessity of human resources in the management of the implemented projects and are remunerated from the funds allocated by the donors.

The right of first signature on the PI “EPIU” acts belongs to the Director. In the absence of the Director, the management functions of the PI “EPIU”, including the right of first signature, shall be exercised by the legal advisor designated by Order of the Director and indicating the delegated functions.

Purchases of goods, works and services financed from the funds provided by the donors for the project's implementation shall be made in accordance with the provisions of the financial assistance agreements and/or of the project cooperation agreements, if the agreement does not set out any procurement procedures and requirements in accordance with the regulatory acts of the Republic of Moldova. In the other cases, the acquisitions are made only according to the normative acts of the Republic of Moldova.

The financing of the of PI “EPIU” activity is made from: the state budget; the financial means allocated by donors for financial and technical assistance projects implementation; and other legal sources. PI “EPIU” keeps the accounting records and presents the statistical reports according to the normative acts in force in the Republic of Moldova. The founder (MoARDE), the Steering Committee and other bodies empowered with this right shall exercise control over the financial activity of the PI “EPIU”.

The projects implemented by PI “EPIU” are audited annually or in accordance with the deadlines set out in the Financial Assistance Agreements and/or in the Project Cooperation Agreements, by audit entities registered in the established manner, according to the normative acts in the field of audit. The auditor's report is submitted to the MoARDE and the donors and is published on the PI “EPIU” official website within 10 days of the date of submission of the report by the audit entity.

## Chapter 2. Institutional Arrangements for National MRV System

### 2.1 National Reports Submitted to the UNFCCC

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted on May 9, 1992 at the UN Conference on Environment and Sustainable Development in Rio de Janeiro, being regarded as a response of the international community to the global warming phenomenon caused by air pollution and the increased concentrations of greenhouse gases.

The ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC) is aimed “*to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*”. To-date 196 countries are Parties to the Convention. The Republic of Moldova signed the UNFCCC on June 12, 1992 and it was ratified by the Parliament on March 16, 1995.

Article 4, paragraph 1(a) and Article 12, paragraph 1(a) of the UNFCCC stipulate that each Party has to make available to the Conference of the Parties (COP) “*a national inventory of anthropogenic emissions by sources and removals by sinks, of all greenhouse gases uncontrolled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be agreed upon by the Conference of the Parties; also a general description of steps taken or envisaged by the Party to implement the Convention; and any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, relevant data for calculations of global emission trends*”.

The main mechanism for making this information available is national communications. COP 2 (Geneva, 1996) adopted the Guidelines on national communications for Non-Annex I Parties (Decision 10/CP 2).

In conformity with the respective Guidelines, during 1998 to 2000, under the *UNDP-GEF Project “Enabling Activities for the preparation of the First National Communication under the UNFCCC”*, Republic of Moldova developed its FNC to UNFCCC<sup>33</sup>, submitted to the COP 6 (Hague, 2000).

The COP 8 (New Delhi, 2002) adopted a new Guideline on national communications for Non-Annex I Parties (Decision 17/CP 8).

In conformity with these Guidelines, during 2005-2009 period, under the *UNEP-GEF Project “Enabling Activities for the preparation of the Second National Communication under the UNFCCC”*, Republic of Moldova developed its Second National Communication (NC2) to the UNFCCC<sup>34</sup>; within 2010-2013 period – the Third National Communication (NC3)<sup>35</sup> to the UNFCCC; while from 2014 to 2017, the Fourth National Communication (NC4)<sup>36</sup> to the UNFCCC.

The COP 16 held in Cancun in December 2010, it was established the periodicity of national communications for the countries Non-Annex I (Decision 1/CP.16). In line with this, the Non-Annex I Parties should prepare and submit to the UNFCCC Secretariat *National Communications (NCs)* every four years and *Biennial Update Reports (BUR)* every two years.

The inventory section of the BUR should consist of a *National Inventory Report (NIR)* as a summary or as an update of the information contained in Decision 17/CP.8, Annex, Chapter III (National Greenhouse Gas Inventories).

The inventory section is expected to present in a detailed and transparent manner the procedures of national inventory for anthropogenic GHG emissions by sources or removals of carbon dioxide through sequestration, including information on emissions trends, key categories, activity data, emissions factors, assessment methodologies, quality assurance and quality control, uncertainties, recalculations and planned improvements, for each source or sink category included in the national inventory.

The COP 17 that took place in Durban in 2011 adopted the *UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention* (Decision 2/CP.17 and Annex 3 to

<sup>33</sup> <<https://unfccc.int/sites/default/files/resource/Moldova%20Communication.pdf>>

<sup>34</sup> <[https://unfccc.int/sites/default/files/resource/Moldova\\_SNC\\_ENG.pdf](https://unfccc.int/sites/default/files/resource/Moldova_SNC_ENG.pdf)>

<sup>35</sup> <<https://unfccc.int/sites/default/files/resource/mdanc3.pdf>>

<sup>36</sup> <[https://unfccc.int/sites/default/files/resource/Moldova\\_CN4\\_En\\_web\\_070218.pdf](https://unfccc.int/sites/default/files/resource/Moldova_CN4_En_web_070218.pdf)>

this Decision). According to this decision, developing countries, Non-Annex I Parties, consistent with their capabilities and the level of support provided for reporting, were expected to submit their first BUR to the Secretariat of the UNFCCC by December, 2014. The Report should be submitted to the Secretariat at every two years as a stand-alone report or as a summary of the National Communications, where their reporting years coincides.

The Republic of Moldova initiated the process of preparing the First Biennial Update Report (BUR1) in July 2014, and presented it to the UNFCCC Secretariat on April 5, 2016. The BUR1 of the RM to the UNFCCC (2016)<sup>37</sup> was submitted with two technical annexes: National Inventory Report: 1990-2013, Greenhouse Gas Sources and Sinks in the Republic of Moldova (2015)<sup>38</sup>; and Report on the National GHG Inventory System in the Republic of Moldova (2015)<sup>39</sup>.

Regarding the Non-Annex I Parties, the COP 17 in Durban approved (Decision 2/CP.17 and Annex IV) the Modalities and Guidelines for International Consultation and Analysis (ICA) consisting of two steps: (i) the technical analysis of BURs and (ii) a facilitative sharing of views among Parties on BURs content and the results of technical analysis.

The process aims to enhance the transparency and accountability of information reported in BURs by Non-Annex I Parties. The technical analysis is conducted by a team of technical experts (TTE) and is initiated within six months of BUR submission to the Secretariat.

As regarding the BUR1 of the RM to the UNFCCC, its technical analysis by the technical expert team took place between 19 and 23 of September 2016, with the summary report was published by the Secretariat on the UNFCCC web page on February 20, 2017<sup>40</sup>.

The Facilitative Sharing of Views (FSV) among Parties on the BUR1 content and the results of technical analysis was carried out during the 3rd FSV workshop, organized by the UNFCCC Secretariat on 15<sup>th</sup> of May 2017 in Bonn, Germany<sup>41</sup>.

The Second Biennial Update Report (BUR2) of the RM to the UNFCCC (2019)<sup>42</sup> was presented to the Secretariat of the UNFCCC with two technical annexes: National Inventory Report: 1990-2016, Greenhouse Gas Sources and Sinks in the Republic of Moldova (2019)<sup>43</sup>; and Report on the National GHG Inventory System in the Republic of Moldova (2019)<sup>44</sup>.

The technical analysis of the Second Biennial Update Report of the RM under the UNFCCC, undertaken by a technical expert team took place between 27 and 31 of May 2019, with the summary report being published by the Secretariat on the UNFCCC web page on October 28, 2019<sup>45</sup>.

## 2.2 The National Arrangements for Reporting to the UNFCCC

As already stated in the previous chapter, the MoARDE is responsible, on behalf of the Government, for implementation of the UNFCCC and the Paris Agreement in the Republic of Moldova.

Within MoARDE, the State Secretary in the field of Environment Protection and Natural Resources used to act as the UNFCCC National Focal Point and the GEF National Focal Point. At the moment, this position is held by the Head of Section on Air Protection and Climate Change Policies<sup>46</sup> of the MARDE (the section consists of 4 public servants, a head of section and 3 specialist, inclusive one responsible for air protection policies, one for climate change policies and one for ozone layer protection policies).

As a developing country and a Party not included in Annex I to the Convention, in accordance with decision 1/CP.16 of the UNFCCC, *the Republic of Moldova is eligible to receive financial resource to cover the agreed full costs incurred by Parties not included in Annex I to the Convention in*

<sup>37</sup> <<https://unfccc.int/sites/default/files/resource/MDABUR1.pdf>>

<sup>38</sup> <<https://unfccc.int/sites/default/files/resource/MDAINV.pdf>>

<sup>39</sup> <<https://unfccc.int/sites/default/files/resource/NIS.pdf>>

<sup>40</sup> <[https://unfccc.int/files/national\\_reports/non-annex\\_i\\_parties/biennial\\_update\\_reports/submitted\\_burs/application/pdf/mda.pdf](https://unfccc.int/files/national_reports/non-annex_i_parties/biennial_update_reports/submitted_burs/application/pdf/mda.pdf)>.

<sup>41</sup> The conclusions of the 3<sup>rd</sup> FSV workshop regarding the BUR1 of the RM under the UNFCCC and the results of the technical analysis are available on the web page: <[http://unfccc.int/files/national\\_reports/non-annex\\_i\\_parties/ica/facilitative\\_sharing\\_of\\_views/application/pdf/20170529\\_mda\\_v04.pdf](http://unfccc.int/files/national_reports/non-annex_i_parties/ica/facilitative_sharing_of_views/application/pdf/20170529_mda_v04.pdf)>; RM's presentation at the 3<sup>rd</sup> FSV workshop is available on: <[http://unfccc.int/files/national\\_reports/non-annex\\_i\\_parties/ica/facilitative\\_sharing\\_of\\_views/application/pdf/moldova\\_fsv\\_workshop\\_presentation\\_15.05.2017.pdf](http://unfccc.int/files/national_reports/non-annex_i_parties/ica/facilitative_sharing_of_views/application/pdf/moldova_fsv_workshop_presentation_15.05.2017.pdf)>, while the video recording of the presentation and the interventions from the Parties are available on: <<https://www.youtube.com/playlist?list=PL-m2oy1bnLzpmRpG2pTBzUeOH3qrXIZt>>.

<sup>42</sup> <[https://unfccc.int/sites/default/files/resource/Moldova\\_BUR2\\_EN\\_web\\_19.04.2019.pdf](https://unfccc.int/sites/default/files/resource/Moldova_BUR2_EN_web_19.04.2019.pdf)>

<sup>43</sup> <[https://unfccc.int/sites/default/files/resource/Moldova\\_NIR\\_EN\\_web\\_24.01.2019-1\\_1.pdf](https://unfccc.int/sites/default/files/resource/Moldova_NIR_EN_web_24.01.2019-1_1.pdf)>

<sup>44</sup> <<https://unfccc.int/sites/default/files/resource/NIS%202018.pdf>>

<sup>45</sup> <<https://unfccc.int/ICA-cycle2>>.

<sup>46</sup> Ministry of Agriculture, Regional Development and Environment <<http://madrm.gov.md/ro/content/contacte>>

*preparing their national communications, every four years, and their biennial update reports, every two years, or in accordance with any further decisions on frequency by the Conference of Parties.*

It is important to mention that all non-Annex I recipient countries have access to Global Environmental Facility (GEF) Trust Fund resources, up to US\$ 500,000, to prepare national communications reports to the UNFCCC, as per their obligations under Articles 4.1 and 12.1 of the UNFCCC and up to US\$ 352,000, to prepare biennial update reports to the UNFCCC, as per decision 2/CP.17 of the UNFCCC.

In the above-mentioned situations, in the Republic of Moldova since 2005 year the United Nations Environment Programme (hereafter, UN Environment) used to serve as the GEF implementing agency. UN Environment provided within 2005-2018 periods Climate Change Office (CCO) of MoARDE with all necessary general management and monitoring support during the implementation of such projects. The UN Environment has reported on the project's performances to GEF.

Since January 2019 year, a new institutional framework is in place, following the stipulations of the Government Decision No. 549 as of 13.06.2018 on creation, organizing and functioning of the Environment Agency<sup>47</sup>, the later has been assigned with specific competencies in the field of *atmospheric air protection and climate change* (see details above); as well as following the stipulation of the Governmental Decision No. 1277 as of 26 December 2018, on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change, according to which the Environment Agency has been designated as the national authority responsible for NSMR management and implementation.

In the above-mentioned context, but also following the fact that the Environment Agency is still in the process of institutionalization and raising its institutional and human capacities, through the Official Letter No. 3471 as of 25.09.2019, the Environment Agency has delegated for a period of 4 years (2019-2023) its responsibilities on performing the process of collecting, centralizing, validating and processing data and required information for the inventories and reports on atmospheric pollutants and GHG emissions, respectively on ensuring the implementation of the monitoring, reporting and verification (MRV) system for GHG emissions, as well as on developing the fifth national communication (NC5) and third biennial update report (BUR3) of the Republic of Moldova to the UNFCCC, to the Public Institution "Environmental Projects Implementation Unit" (PI "EPIU"). These reports will be executed on behalf of the MoARDE and Environment Agency in consultation with UN Environment. As national executing agency, the PI "EPIU" will be primarily responsible for the planning and management of the project activities, accounting, reporting, monitoring and evaluation of the projects.

The Steering Committee (SC) of the PI "EPIU" will facilitate the project activities coordination, providing transparency and guidance, ensuring high-level support and sustainability of the project results and having decision-making power over all aspects of the project implementation.

The SC will meet every three months to evaluate progress of work, advise project execution, and where necessary provide overall direction and oversight to the project.

The State Secretary in the field of Environment Protection and Natural Resources will act as Chairman of the SC and will ensure effective communications between all key actors (UN Environment, MoARDE, PI "EPIU" and National Commission on Climate Change), other relevant partners, if the case.

The Steering Committee (SC) of the PI "EPIU" will inform on regular basis (at least once a year) the members of the "National Commission for Implementing Provisions of the UNFCCC and Provisions and Mechanisms of Kyoto Protocol" (further the National Commission for Climate Change – NCCC), on the progresses in the implementation of the respective projects. It is to be remembered that the NCCC is the supreme authority in the Republic of Moldova responsible for implementation of the UNFCCC provisions, as well as the mechanisms and provisions of Kyoto Protocol and most recently, of the Paris Agreement.

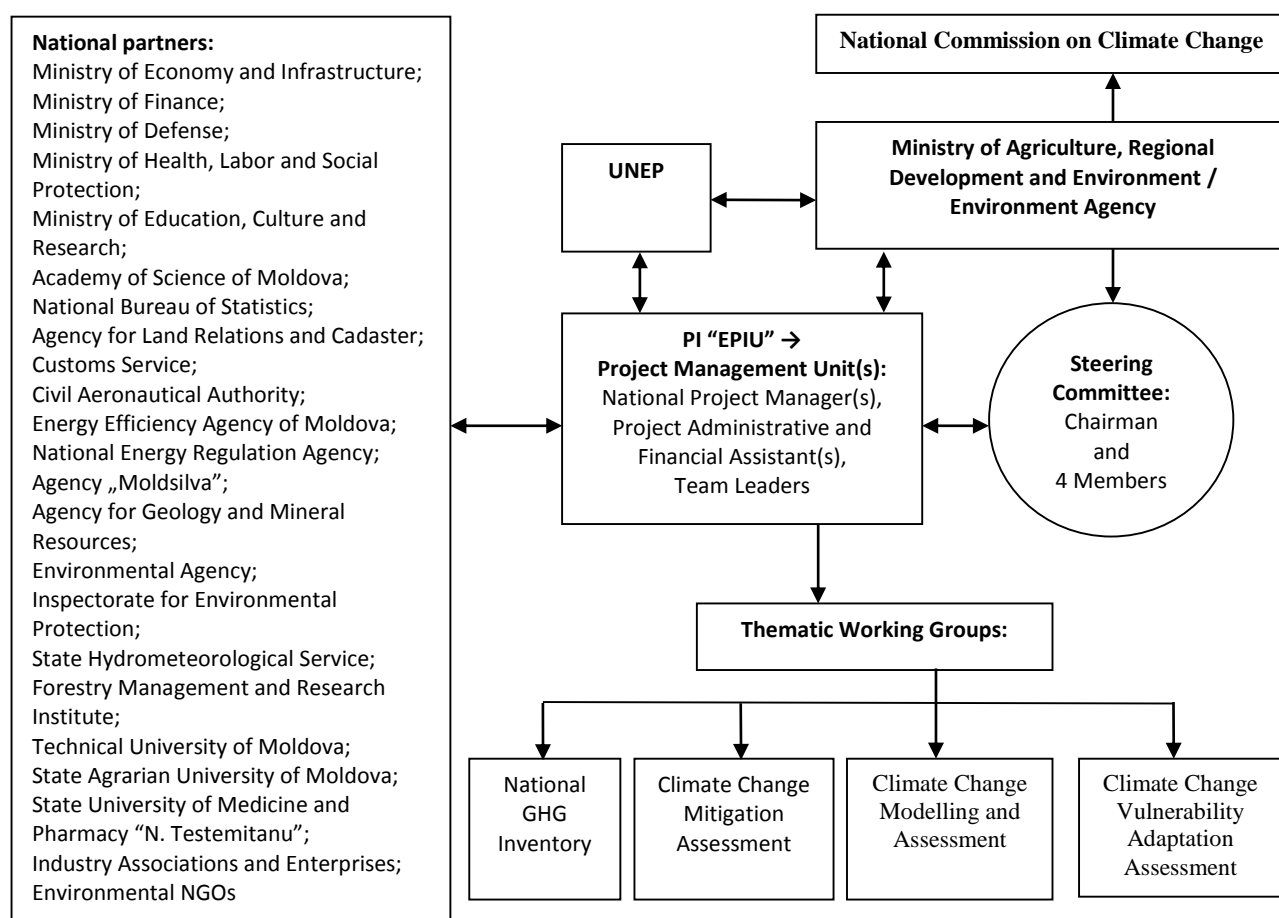
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<sup>47</sup> Official Gazette No. 210-223 of 22.06.2018. GD No. 549 from 13.06.2018 on creation, organizing and functioning of the Environment Agency (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=375961>>).

Initially, the NCCC was vested with authority to develop and promote policies and strategies under the CDM of the Kyoto Protocol, while more recently it is to be vested also with the authority to develop and promote adaptation strategies, action plans and projects, as well as low emission development strategies and action plans and national appropriate mitigation actions (NAMA projects).

The Public Institution “Environmental Projects Implementation Unit” (PI “EPIU”) was designated by MoARDE as legal entity responsible for the executing the projects to be focused on preparation of the NC5 and BUR3 of the Republic of Moldova to the UNFCCC.

Within PI “EPIU”, Project Management Units (PMUs) for each respective project will be established, including national project manager, project administrative and financial assistant and leaders of thematic working groups in the areas of National GHG Inventory; Climate Change Mitigation Assessment; Climate Change Modelling; and Climate Change Vulnerability and Adaptation Assessment; as illustrated below in Figure 2-1.



**Figure 2-1:** Institutional arrangements for NC5 and BUR3 projects implementation.

The PMU(s) will be in charge of project implementation activities as per the agreed Project Implementation Plans (PIPs) and will be responsible for the day-to-day management of the project, monitoring, and evaluation. The PMU(s) will coordinate all activities, and will provide services and carry out activities such as procurement and delivery of project inputs, and their conversion into the project outputs.

The National Project Manager(s) (NPMs) will be the PMU(s) head(s) and will be responsible for the effective, efficient and timely implementation of project activities. The NPMs will report to the Steering Committee of the PI “EPIU” and UN Environment and will coordinate the implementation of all project activities with them.

The projects will be supported by the Project Administrative and Financial Assistant(s), who will be responsible for all administrative and financial matters related to the project. The PAFAs will manage

the project budget (including, planning and monitoring of project expenditures, insuring of payments, accounting etc.). The PAFAs will report to the NPM(s).

The task leaders of the thematic working groups will act as leaders of the four TWGs under the direct supervision and coordination of the NPM(s), according to the agreed Project Implementation Plans. The TWGLs will report on regular basis to the NPM during the project implementation.

The national experts/consultants to be involved in the project implementation will be selected and hired from the relevant institutions that take lead in the area of climate change and/or are relating to the project objectives and will represent public institutions, academia, education and research institutions, NGOs, private sector, and when necessary, also the central administration bodies.

Certain works, may be executed with institutions, agencies, services and other recognized legal entities to perform specific activities associated with the project, as for instance the data and other relevant information collection, which will be undertaken in the frame of current legal framework, ensured by the Law No. 982 as of 11.05.2000 on access to information<sup>48</sup>, as well as by the Law No. 93 as of 26.05.2017 on official statistics<sup>49</sup>.

In order to broaden the experience of the national teams, the national experts/consultants will participate in relevant sub-regional, regional and international training workshops, when opportunities arise. To ensure the sharing of experiences and lessons learned with other countries on climate change issues and implementation of the NCs and BURs, the NPMs will be participate, when the case, to the Subsidiary Body for Scientific and Technological Advice, Subsidiary Body for Implementation meetings and/or Conference of Parties (COP) to the UNFCCC.

Relevant stakeholders will participate and contribute to the NC5 and BUR3 development process. Stakeholders representing key governmental organizations, academic institutions, education and research institutions, private sector and environmental NGOs with mandates relevant to the UNFCCC, have been envisaged as participants during the stakeholder consultations, undertaken under the project proposal development process.

The involved stakeholders have been grouped based on the level of involvement and areas of expertise. Thus, the representatives of the following Central Public Authorities (Governmental Ministries), Central Public Administrations (agencies, services, bureaus and offices), academia, education and research institutions, universities, private sector and civil society institutions have manifested interest:

- i. to participate in the overall coordination process of the NC5 and BUR3 Projects, inclusive through a well-defined quality assurance, quality control and verification system;
- ii. to provide relevant activity data to be used in the planned assessments (e.g. GHG inventory development, climate change mitigation assessment, climate change modelling, and vulnerability and adaptation assessment);
- iii. to participate in the updating / revision of the policy framework in the area of climate change (e.g. NAPs and LEDS); as well as
- iv. to participate in the climate change awareness activities, to be implemented under the NC5 and BUR3 Projects

Central Public Authorities:

- Ministry of Agriculture, Regional Development and Environment;
- Ministry of Economy and Infrastructure;
- Ministry of Finance;
- Ministry of Health, Labor and Social Protection;
- Ministry of Defense;
- Ministry of Foreign Affairs and European Integration;
- Ministry of Education, Culture and Research.

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<sup>48</sup> Official Gazette No. 88-90 of 28.07.2000. Law No. 982 from 11.05.2000 on access to information (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=311759>>).

<sup>49</sup> Official Gazette No. 216-228 of 30.06.2017. Law No. 93 from 26.05.2017 on official statistics (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=370784>>).



Entities that report to Central Public Authorities:

- Environment Agency;
- Environmental Inspectorate;
- Civil Aviation Authority;
- Naval Agency of the Republic of Moldova;
- Customs Service;
- Agency for Energy Efficiency;
- National Centre for Public Health;
- Moldsilva Agency;
- State Hydrometeorological Service.

Central Public Administrations:

- National Bureau for Statistics;
- Agency for Land Relations and Cadaster;
- Agency for Medicines and Medical Devices;
- Public Services Agency;
- National Agency for Food Safety.

State Owned Enterprises and Joint Stock Companies which report to central public authorities, as well as companies with state participation:

- State Owned Enterprise “State Roads Administration”;
- State Owned Enterprise “Ungheni River Harbour”;
- State Owned Enterprise “Molovata Ferry”;
- Forestry-Didactic Enterprise „Research and Forest Landscaping Institute” (subordinated to Moldsilva Agency);
- State Owned Enterprise „Railways of Moldova”;
- State Owned Enterprise “Chisinau Glass Factory”, Chisinau;
- State Owned Enterprise “Moldelectrica”, Chisinau;
- Joint Stock Company “RED Nord-Vest”, Donduseni;
- Joint Stock Company “RED Nord”, Balti;
- Joint Stock Company “TERMOELECTRICA”, Chisinau;
- Joint Stock Company “CET-Nord”, Balti;
- Joint Stock Company “Moldovagaz”, Chisinau.

Other Enterprises:

- I.C.S. “RED UNION FENOSA” SA from Gas Natural Fenosa Group,
- “MACON SA” from Chisinau,
- “CIMENT MOLDOVA LAFARGE S.A.” from Rezina,
- “Glass Container Company” J.S.C.
- Municipal Enterprise “Autosalubritate”.

Academy of Sciences of Moldova with its institutional members:

- Institute of Ecology and Geography (IEG),
- Institute of Power Engineering (IPE),
- Institute of Pedology, Agrochemistry and Soil Protection ‘Nicolae Dimo’ (IPASP);
- Institute of Scientific and Practical Animal Husbandry and Veterinary Medicine in Biotechnology (ISPAHVM).

Universities:

- Technical University of Moldova (TUM),
- State Agrarian University of Moldova (SAUM),
- State University of Medicine and Pharmacy “N. Testemitanu” (SUMP).

Civil Society Organizations:

- Environmental Movement of the Republic of Moldova (NGO).

Appropriate financial resources will be allocated throughout the projects cycle to ensure proper and meaningful stakeholder engagement.

Project Inception Workshops (PIWs) will be held within the first 3 months of project start-up with those with assigned roles in the project organization structure, as well as all interested stakeholders. The PIWs are crucial for building ownership regarding the project results and to verify the implementation annual and project work plans.

The PIWs will address a number of key issues including:

- Assist all partners and relevant stakeholders to fully understand and take ownership of the projects. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms;
- Consult and if necessary, update the detailed annual work plans as required.
- Review the indicators, targets and their means of verification, and reassess assumptions and risks;
- Provide a detailed overview of reporting, monitoring and evaluation requirements. The monitoring and evaluation work plans and budgets should be agreed and scheduled;
- Discuss financial reporting procedures and obligations;
- Plan and schedule Steering Committee meetings: roles and responsibilities of all projects organization structures should be clarified, and meetings planned (e.g., the first SC meeting should be held within the first 3 months following the PIWs).

The PIWs will provide the opportunity to introduce and discuss key cross-cutting issues that should be considered within the NC5 and BUR3 Projects. In order to help introduce these topics the PMU(s) will invite important actors from cross-practice groups including gender, governance and poverty. Specifically, because the GEF proposes as appropriate the inclusion of gender consideration aspects in this project, UN Environment it is suggested identifying country-level women's networks that can help better incorporate gender concerns into climate change strategies and decision-making and further identifying opportunities to incorporate into project designs local knowledge that strengthens the roles of women.

Following those mentioned already above, it is worth mentioning also that consistent with the policies of the Ministry of Health, Labor and Social Protection (MHLSP), relating to the promotion of women into decision-making processes, women are actively involved in climate change related activities in the Republic of Moldova, not only as beneficiaries but also as indispensable partners in the climate change decision-making. Understanding how the unique social and economic roles played by women is crucial to the effective implementation of sectoral and national projects and programs to adapt and to mitigate climate change in the Republic of Moldova. Although the role of women in the climate change adaptation actions is better understood in the Republic of Moldova, the role of women in climate change mitigation strategies has received relatively little attention until this moment. This is because programs to address GHG mitigation issues have been perceived to be rather technical or scientific in nature. However, attempts would be made during the project inception work to clearly identify ways and means of engaging women in mitigation actions implementation in the Republic of Moldova.

The PIWs Reports will be a key reference document and will be prepared and shared with participants to formalize various agreements and plans decided during the meeting. It will be a key deliverable of the project. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums at the sub-national, national, regional, and global levels. The PMU(s) will work closely with the UN Environment and National Communications Support Unit (NCSU) in this context. The PMU(s) will also identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned.

The projects will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. There will be a two-way flow of information between these projects and other projects of a similar focus, supported by the NCSU.

Visibility is a major criterion from donors for measuring success and PMU(s) will be encouraged to develop an outreach strategy at the beginning of the project that has to be regularly monitored. At times, national teams may be called upon to provide updates on their project progress for featuring in donor publications, if required. Also, the PMU(s) will be requested to develop a webpage or, at minimum, post relevant project activities on the most appropriate institutional websites (websites of PI “EPIU”, Environment Agency and MoARDE).

During the last two months of the projects, the PMU(s) will prepare comprehensive Terminal Project Reports (TPRs). The TPRs will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the projects’ results.

### **2.3 The Key Institutions Responsible for Relevant Data Collection**

In accordance with the Governmental Decision No. 1277 as of 26 December 2018, on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change, the Environment Agency has been designated as the national authority responsible for NSMR management and implementation, being totally responsible for the activities related to preparation of National Communications (NCs), Biennial Update Reports (BURs), National Inventory Reports (NIRs) and National GHG Emission Inventory Reports.

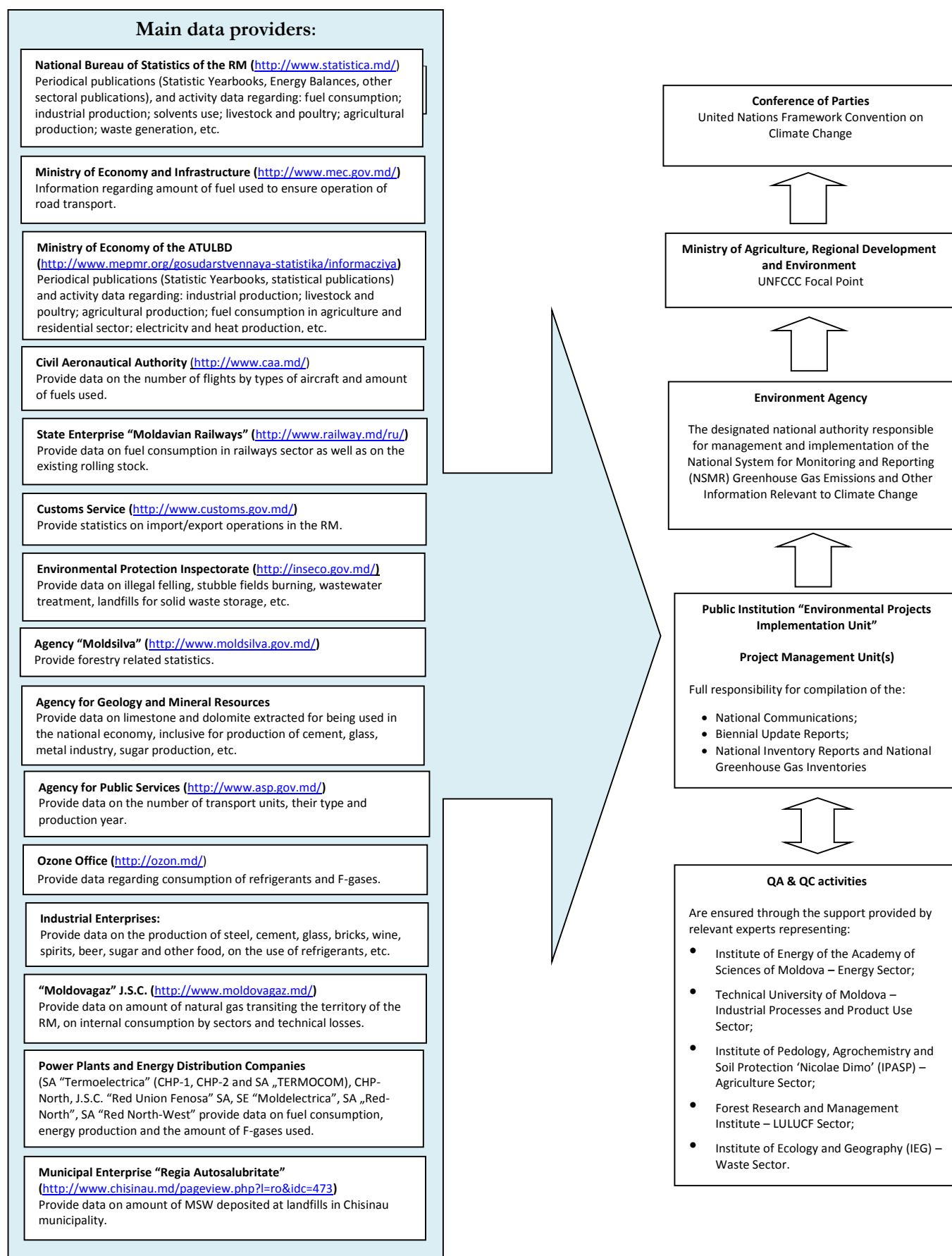
Figure 2-2 reveals the current responsibilities and arrangements for the National Inventory System (NIS) of the RM.

Following the fact, that the Environment Agency it is still in the process of institutionalization and raising its institutional and human capacities, through the Official Letter No. 3471 as of 25.09.2019, the Environment Agency has delegated for a period of 4 years (2019-2023) its responsibilities on performing the process of collecting, centralizing, validating and processing data and required information for the inventories and reports on atmospheric pollutants and GHG emissions, respectively on ensuring the implementation of the monitoring, reporting and verification (MRV) system for GHG emissions, as well as on developing the Fifth National Communication (NC5) and Third Biennial Update Report (BUR3) of the Republic of Moldova to the UNFCCC, to the Public Institution “Environmental Projects Implementation Unit” (PI “EPIU”). These reports will be executed on behalf of the MoARDE and Environment Agency in consultation with UN Environment.

Within the PI “EPIU” the National Inventory Team (NIT) will be responsible for estimating emissions by source categories and removals by categories of sinks, Key Categories Analysis (KCA), Quality Assurance (QA) and Quality Control (QC) procedures, uncertainties assessment, documentation, reporting and archiving of data related to GHG inventory, BURs and NCs preparation process.

Below is a brief description of functional responsibilities of the participants in the process:

- The NIT Coordinator / Compiler of the National GHG Inventory will be responsible for the inventory preparation process coordination, including supervision of estimating emissions by individual categories of sources and removals by individual categories of sinks, KCA, uncertainty analysis interpretation, QA&QC activities coordination, documentation and archiving the data used in the inventory preparation process, synthesis of sectoral reports – serving as basis for the NIR compilation, respectively Chapter 2 “GHG National Inventory” from the BURs and NCs;
- The national experts (hired on a contract basis) will be responsible for estimating emissions by individual categories of sources and removals by individual categories of sinks at sectoral level (Sector 1 “Energy”, Sector 2 “Industrial Processes and Product Use”, Sector 3 “Agriculture”, Sector 4 “LULUCF” and Sector 5 “Waste”); national experts will be responsible for the activity data (AD) collection, application of decision trees in terms of selecting suitable assessment methods and EFs, estimating emission uncertainties by individual categories of sources, as well as for taking correction measures as a response to QA&QC activities.



**Figure 2-2:** Institutional Arrangements under the National Inventory System of the Republic of Moldova.

The AD needed for developing the national GHG inventories are available in the Statistical Yearbooks (SY), Energy Balances (EBs) sectoral statistic publications, as well as in the on-line database<sup>50</sup> of the National Bureau of Statistics (NBS) of the Republic of Moldova.

For the period until 1992, the information is available for the whole territory of the Republic of the Moldova, while since 1993 only for the right bank of Dniester (without Transnistria, further referred as Administrative Territorial Units on the Left Bank of Dniester). The statistical data for the left bank of Dniester are available in the Statistical Yearbooks of the ATULBD<sup>51</sup> and in other relevant sectorial statistical publication, as compiled by the State Statistical Service beside the Ministry of Economy of the ATULBD<sup>52</sup>.

Other relevant activity data was collected from various partner based on the provisions of the *Law on Access to Information*, adopted by the Decision of the Parliament No. 982-XIV as of 11.05.2000, while most recently it will be collected also based on the stipulations of the Governmental Decision No. 1277 as of 26 December 2018, on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change, including:

- from the Agency for Public Services: information on the number of transport units registered, their type and production year;
- from State Enterprise “Moldavian Railways”: information of fuel used for rail transport, as well as on the rolling stock used by the enterprise;
- from the Naval Agency of the RM and State-Owned Enterprises „Ungheni River Port” and „Bacul Molovata”: information on the amount of fuel used to ensure operation of naval transport;
- from Civil Aeronautical Authority: information on the amount of fuels used in air transportation (civil and international aviation) and the number of flights by type of aircrafts;
- from the Ministry of Defense: information on the amount of fuels used for military transportation;
- from the Ministry of Health, Labor and Social Protection and Medicines and Medical Devices Agency: information on the use of N<sub>2</sub>O for anesthesia purposes as well as the use of medicines which contains aerosols (specifically on HFCs);
- from Land Relations and Cadaster Agency: information on land use by categories type;
- from Agency “Moldsilva”: information on forestry related statistics;
- from Environmental Inspectorate: information on illegal felling and stubble fields burning;
- from Customs Service: statistics on import/export operations in the Republic of Moldova;
- from Agency for Geology and Mineral Resources: information on limestone and dolomite extraction and use;
- from Ozone Office of the Public Institution “Environmental Projects Implementation Unit”: information on import/export of freons in bulk and type of freons used in the imported refrigeration and air-conditioning equipment;
- from State Owned Enterprise State Road Administration: information on the amount of asphalt produced and used in the country;
- from Municipal Enterprise “Regia Autosalubritate”: information on landfill storage of solid household waste generated in Chisinau municipality;
- from “Moldovagaz” J.S.C.: information on the amount of natural gas transited through the territory of the Republic of Moldova, on the consumption of natural gas in the national economy by sector, as well as on technical losses;
- from Power Plants (“TERMOELECTRICA” J.S.C. in Chisinau [CHP-1 J.S.C., CHP-2 J.S.C. and “TERMOCOM” J.S.C.], CHP-North J.S.C. in Balti: information on the amount of fuel used for electricity and heat production;

<sup>50</sup> National Bureau of Statistics of the Republic of Moldova, on-line database: <<http://statbank.statistica.md/pxweb/Database/RO/databasetree.asp>>

<sup>51</sup> CCO of the MoEN has copies of the Statistical Yearbooks of ATULBD for the years of 2000-2016, covering the statistical data for the 1990 year and 1995-2015 periods.

<sup>52</sup> Ministry of Economy of the ATULBD: <<http://www.mepmr.org/gosudarstvennaya-statistika/informacziya>>

- from enterprises specialized in transportation and distribution of electricity (S.O.E. “Moldelectrica”, I.C.S. “RED UNION FENOSA” J.S.C., “Red-North” J.S.C., “Red North-West” J.S.C.) – information on the amount of PFCs and SF<sub>6</sub> used in electrical equipment;
- from a range of industrial enterprises (“Lafarge Cement (Moldova)” J.S.C., “Macon” J.S.C., Glass Factory No. 1 in Chisinau, “Glass-Container” Company in Chisinau, etc.) – information on the amount of fuel used, industrial output and amount of mineral resources used.

Statistical data (inclusive, unpublished data) may be provided at request, in conformity with provisions of the *Law No. 93 as of 26.05.2017 on “Official Statistics”*. Thus, according to Article 23, item (1), (2) and (6): „the official statistics authorities must disseminate statistical data to users in the terms specified in the statistical works programme and calendar”, „the dissemination of the statistical data provided in the statistical works programme to all categories of users will be free of charge and under equal conditions of access in terms of volume, quality and terms”, and „it may be disseminated data collected from legal persons or from individual entrepreneurs regarding the economic situation or the environment, if it is necessary to inform the society about the major issues and the statistical works programme foresees its dissemination”; Article 24, items (1) and (2): „the dissemination of official statistical data shall be carried out in compliance with the fundamental principles of official statistics, in particular with regard to the protection of statistical confidentiality and the guarantee of equal access in accordance with the principle of impartiality”, respectively „the dissemination of official statistical data shall be carried out by the central authority in the field of statistics and by other providers of official statistics within their activity fields”, and Article 25, items (1) and (2): „providers of official statistics have the right to disseminate for a certain payment statistical data produced outside the statistical works programme, through additional special processing, at the request of users”, respectively „central statistical authority and its territorial subdivisions are authorized to perform, on a contractual basis, at the request of internal or external beneficiaries, research and special statistical works, including publications, which are not covered by the statistical works programme”.

It should be mentioned that the Article 1 of the *Law on Access to Information* regulates the relationships between information providers and individual / legal entity in the process of ensuring and implementing the constitutional right of access to information; principles, conditions, ways and manner of accomplishing access to official data owned by information providers; aspects of access to and protection of personal information within the scope of access to such data; rights of data solicitants, including petitioners of personal data; obligations of information providers in the process of ensuring access to official information; ways to protect the right to access to information.

Article 4 (1) stipulates that “anyone, under this law’s conditions, has the right to look for, receive and make public official information”. According to Article 6 (1), “official information is deemed to be all information owned and available to information providers, developed, selected, processed, consolidated and/or adopted by authorities or official persons or made available to them by other legal entities”. This Article is a review of information bearing documents as stipulated by the provisions of this law. Article 7 refers to cases of limited access to official information. Rights of data solicitants are reflected in Article 10, while Article 11 refers to the obligations of information provider.

According to Article 13 (1), ways of access to information are the following: hearing of information which can be provided verbally; document review on the premises of the institution; issuing a copy of the requested document or information; issuing a copy of the document, information translated into a different language than the language of the original, for an additional charge; sending by mail (including e-mail) of a copy of the document, information, a copy of the translated document, information into a different language, at the solicitant’s request, for a charge. Article 13(2) stipulate that extracts from registers, documents, information, as per solicitant’s request, can be made available to the solicitant in a reasonable and acceptable to the solicitant form.

Article 16 of the Law refers to the requirements that have to be met to ensure access to information: the requested information or documents shall be made available to the solicitant from the moment it becomes available for issuing, but not later than 15 working days from the date the application for access to information is registered; the leadership of the public institution may extend the term of providing the information, or document by 5 working days if: (1) the request refers to a very big

volume of information requiring their selection; (2) additional consultations are needed to satisfy the request. The solicitant will be informed about any extension of the information delivery term and about the reasons for such extension 5 days prior to the expiry of the initial term. The Law also refers to cases when access to information is denied, to payments for official information provision, to modalities of protecting the right for access to information and prosecution in court of information providers' actions.

Also, a series of laws contain provisions pertaining to wide public to environment protection related information. So, Article 29 (3) of the *Law on Natural Resources*, adopted by the Parliament Decision No. 1102-XIII as of 06.02.1997, stipulates that „*Government, local public administration authorities, state bodies assigned with natural resources management and environment protection, as well as businesses, shall make public valid and accessible information regarding natural resources use and environment protection activities*”.

Article 23 of the *Forestry Code*, adopted by the Parliament Decision No. 887 as of 21.06.1996, stipulates that “*citizens and NGOs are entitled to receive information from the state forestry authorities and environment protection bodies about forestry and hunting resources, planned and accomplished conservation measures and use of such resources*”.

The *Regulation regarding trading and regulated use of halogenated hydrocarbons that deplete the ozone layer*, approved by the Law No. 852-XV as of 14.02.2002, stipulates the procedure of presenting by the MoARDE of information regarding production, import, export, trading and use (recycled and reclaimed quantities of controlled substances) of halogenated hydrocarbons that deplete the ozone layer, regulated by Montreal Protocol.

## **2.4 Key Stakeholders, their Mandates, Roles and Responsibilities under the National MRV System, Data Sharing and Reporting Arrangements Framework**

In accordance with the ‘*Regulation on the Establishment and Functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and other Information Relevant to Climate Change*’ (see Annex 1 of the Governmental Decision No. 1277 as of 26 December 2018), the Environment Agency has been designated as the national authority responsible for NSMR management and implementation.

Following the stipulations from **paragraph 8** of the Regulation, the central authority for natural resources and environment (MoARDE) has the following duties:

- 1) to elaborate and update:
  - a) the long-term low carbon emissions development strategy in accordance with any reporting provisions agreed internationally in the context of UNFCCC;
  - b) the National Determined Contribution (once in five years), which is to be communicated to the UNFCCC Secretariat through predefined reporting tools;
- 2) to monitor transparently and assess recorded progresses at the domestic level in the context of meeting long term commitments of reducing anthropogenic greenhouse gas emissions laid down in documents of national policies, following the implementation of the NDCs;
- 3) to report to the UNFCCC Secretariat through predefined reporting tools:
  - a) information on the progress in implementing the LEDS (in accordance with internationally agreed terms);
  - b) the National Communication (NCs) and the National Inventory Report (NIRs) as a technical annex (once in four years);
  - c) the Biennial Updated Report (BURs) and the National Inventory Report (NIRs) as a technical annex (once in two years);
- 4) inform the public via mass media or any other accessible manner on the LEDS and the NDC and any updates thereof, as well as any other recorded progress in their implementation.

According to **paragraph 9** of the Regulation, the designated competent authority (Environment Agency) has the duties:



- 1) to ensure the establishment and functioning of the NSMR;
- 2) to establish and coordinate with responsible public authorities and institutions that are part of the NSMR and to approve the questionnaires format for reporting annually;
- 3) to estimate anthropogenic emissions by sources and removals by sinks of GHGs in accordance with the decisions adopted under UNFCCC, Kyoto Protocol and Paris Agreement;
- 4) to elaborate periodically:
  - a) the national GHGs inventory, and the National Inventory Report thereof (once in two years);
  - b) the Biennial Updated Report (once in two years);
  - c) the National Communication (once in four years);
- 5) to provide to the central authority for natural resources and environment (MoARDE) all information necessary to meet the reporting requirements under UNFCCC, Kyoto Protocol and Paris Agreement.

Following the stipulations laid down in **paragraph 10** of the Regulation, within the deadlines laid down and upon request of the competent authority (Environment Agency), relevant public authorities and institution that are part of the NSMR (the List of respective institutions is available in the Annex 2 of the Governmental Decision No. 1277 as of 26 December 2018) are responsible for:

- 1) providing to the competent authority (Environment Agency) all necessary information and data for:
  - a) preparing the National Inventory of Greenhouse Gas Emissions;
  - b) estimating projections of anthropogenic emissions by sources and removals by sinks of greenhouse gases
  - c) assessing and reporting on progress in the implementation of mitigation policies, vulnerabilities to climate change, impact of climate change and progress in the implementation of adaptation actions;
  - d) reporting technological and financial support provided by industrially developed countries, specified in Annex I to the UNFCCC, including for activities that are intended for mitigation and adaptation to climate change;
- 2) ensuring consistency, completeness and accuracy of provided data, as well as for primary data validation;
- 3) compliance with the provisions and conditions of this Regulation.

According to **paragraph 12** of the Regulation, the competent authority (Environment Agency), through direct cooperation with responsible public authorities and institutions that are part of the NSMR and with the support of the central authority for natural resources and environment (MoARDE), shall ensure the establishment and operation of the National Inventory System (hereinafter – NIS), by periodically improving the institutional, legal and procedural framework, in conformity with the national and international legal framework.

Following stipulations of **paragraph 16**, the competent authority (Environment Agency) shall ensure the quality of national inventories by completing the *inventory planning, preparation and management*, which include collecting activity data, selecting methods and emission factors appropriately, estimating anthropogenic greenhouse gas emissions by sources and removals by sinks, implementing uncertainty assessment and quality assurance/quality control activities, and carrying out procedures for verification of the inventory data at the domestic level.

According to **paragraph 17**, as part of the national *inventory planning* the competent authority (Environment Agency) shall:

- 1) make available financial resources necessary for the development of the national inventory, as well as for collecting activity data, selection of emission factors and estimation methods, implementation of quality assurance and quality control measures, estimation of key

- categories, uncertainties, envisioned recalculations and improvements, for each source category or sink included in the national inventory;
- 2) elaborate, approve and periodically update the QA/QC plan which describes specific QC procedures to be implemented during the inventory development process, facilitate the overall QA procedures to be conducted, to the extent possible, on the entire inventory and establish quality objectives;
- 3) make available the postal and electronic addresses of the national competent authority responsible for the inventory;
- 4) establish processes for the official consideration and approval of the inventory, prior to its submission to the UNFCCC Secretariat.

Following stipulations of **paragraph 18**, as part of the national *inventory preparation* the competent authority (Environment Agency) shall:

- 1) identify key categories by following the methods described in the 2006 IPCC Guidelines;
- 2) collect sufficient activity data, process information and emission factors as are necessary to support the methods selected for estimating anthropogenic GHG emissions by sources and removals by sinks;
- 3) prepare estimates in accordance with the methods described in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and ensure that appropriate methods are used to estimate emissions from key categories;
- 4) make a quantitative estimate of inventory uncertainty for each source category and for the inventory in total, following the 2006 IPCC Guidelines;
- 5) ensure that any recalculations of previously submitted estimates of anthropogenic GHG emissions by sources and removals by sink are prepared in accordance with the 2006 IPCC Guidelines;
- 6) compile the national inventory in accordance with relevant decisions of the COP;
- 7) implement general inventory QC procedures (tier 1) in accordance with the approved QA/QC plan following the 2006 IPCC Guidelines;
- 8) apply category specific QC procedures (tier 2) for key categories and for those individual source categories in which significant methodological and/or data revisions have occurred, in accordance with the 2006 IPCC Guidelines;
- 9) provide for a basic review of the inventory by personnel that have not been involved in the inventory development, preferably an independent third party, before the submission of the inventory;
- 10) provide for a more extensive review of the inventory for key categories, as well as for categories in which significant changes in methods or data have been made;
- 11) re-evaluate the inventory planning process in order to meet the established quality objectives established in the QA/QC plan, taking into account recommendations from the actions laid down above in pt. 9) and 10) of para. 18), and of the results of periodic internal evaluations of the inventory preparation process.

According to **paragraph 19**, as part of the national *inventory management* the competent authority (Environment Agency) shall:

- 1) periodically archive and store the inventory information for each inventory year, including:
  - a) all disaggregated emission factors, activity data, and documentation about how these factors and data have been generated and aggregated for the preparation of the inventory;
  - b) internal documentation on QA/QC procedures;
  - c) documentation on external and internal reviews, documentation on annual key categories identification and planned inventory improvements;
- 2) Provide the technical teams of experts (hereinafter – *TTE*) in the process of technical analysis of biennial update reports (BURs) under the international consultation and

analysis (hereinafter – *ICA*) with access to information used to develop the national inventory, as well as to information on the NSMR;

- 3) respond to requests for clarifying inventory information resulting from the different stages of the process of technical analysis of biennial update reports under the ICA in a timely manner, in accordance with UNFCCC decisions.

Following stipulations of **paragraph 20**, the competent authority (Environment Agency) shall communicate to the central authority for natural resources and environment (MoARDE), until 15 December of the year in which the reporting is done (year X), the following information:

- 1) the level of anthropogenic emissions of direct greenhouse gases – carbon dioxide [CO<sub>2</sub>], methane [CH<sub>4</sub>], nitrous oxide [N<sub>2</sub>O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], sulfur hexafluoride [SF<sub>6</sub>], nitrogen trifluoride [NF<sub>3</sub>] – recorded two years prior to the year in which the reporting is done (year X-2);
- 2) the level of anthropogenic emissions of indirect greenhouse gases – carbon monoxide [CO], nitrogen oxides [NO<sub>x</sub>], non-methane volatile organic compounds [NMVOCs] and sulfur dioxides [SO<sub>2</sub>] – recorded 2 years prior to the year in which the reporting is done (year X-2);
- 3) accounting of emissions and removals from land use, land-use change and forestry sector, recorded two years prior to the year in which the reporting is done (year X-2);
- 4) any recalculations and/or modifications of information provided for in subpt. 1) - 3), covering the period between the base year (1990) and three years prior to the year in which the reporting is done (X-3);
- 5) the elements comprised in the National Inventory Report, information on QA/QC plan, a general assessment of uncertainty and completeness of the inventory, as well as information on any other recalculations;
- 6) measures taken to improve GHG emissions estimates, mainly recalculated estimates.

According to **paragraph 21**, the central authority for natural resources and environment (MoARDE) shall submit to the UNFCCC Secretariat, based on data provided by the competent authority (Environment Agency), prior to 31 December of the year in which the reporting is done (year X), the complete greenhouse gases national inventory for the period starting with base year (1990) and ending with the year X-2.

Following stipulations of **paragraph 22**, the competent authority (Environment Agency), shall make available to the public the information regarding greenhouse gas emissions in conformity with the provisions of the Regulation from the Annex 1 of the Governmental Decision No. 1277 as of 26.12.2018.

According to **paragraph 23**, the central authority for natural resources and environment (MoARDE), through the competent authority (Environment Agency), shall:

- 1) monitor and improve continuously the national system for policies and measures and projections of anthropogenic greenhouse gas emissions by sources and removals by sinks;
- 2) ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of the information reported on policies and measures and projections of anthropogenic greenhouse gas emissions by sources and removals by sinks; and, if necessary, the use and application of data, methods and models, and the implementation of quality assurance and quality control activities and sensitivity analysis;
- 3) establish the structure, format and procedure for reporting to the UNFCCC the information stipulated in the national system for policies and measures and projections.

Following stipulations of **paragraph 24**, competent authority (Environment Agency) shall submit to the central authority for natural resources and environment (MoARDE) prior to 15 December of the year in which the reporting is done (year X), and every two years thereafter, the following information:

- 1) a description of the national system for reporting on policies and measures, or groups of measures, and for reporting on projections of anthropogenic greenhouse gas emissions by sources and removals by sinks;
- 2) updates relevant to the LEDS and the NDC;
- 3) information on national policies and measures, or groups of measures, that limit or reduce greenhouse gas emissions by sources or enhance removals by sinks, organized on a sectoral basis as well as by gas or group of gases (HFCs and PFCs) listed in Annex No 3 of the Government Decision No. 1277 as of 26.12.2018. That information shall refer to applicable and relevant national policies and shall include:
  - a) the name of the mitigation policy or measure;
  - b) the objective of the policy or measure and a short description of the policy or measure;
  - c) the type of policy instrument (economic, fiscal, voluntary commitment, regulatory, etc.);
  - d) the status of implementation of the policy or measure or group of measures (implemented, planned, adopted, in the course of implementation, realized);
  - e) the year of initiating the implementation process of the policy or measure or group of measures;
  - f) the organizations/institutions responsible for implementing the policy or measure or group of measures;
  - g) the indicators for monitoring and evaluating progress over time when they are used;
  - h) the affected sectors (energy, transport, industry/industrial processes and product use, agriculture, land use, land-use change and forestry, waste/waste management, other sectors and intersectoral areas, as applicable);
  - i) the affected greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>);
  - j) the mitigation impact or quantitative estimates of the effects on greenhouse gases emissions by sources and removals by sinks, when they are available, broken down into: the results of the *ex-ante* assessment of effects of each policy and measure or groups of policies and measures on climate change mitigation (provided for a sequence of four future years ending in 0 or 5 immediately after the reporting year) and the results of *ex post* assessments of the effects of each policy and measure or groups of policies and measures on climate change mitigation;
  - k) estimates of projected costs and benefits of policies and measures, including benefits of non-GHG nature (such as reductions in other types of pollutants or benefits to human health) planned for policies and measures, as well as costs and benefits assessment of policies and measures, when they are available;
- 4) all references to assessments and related technical reports are mentioned in below paragraph 26, when available;
- 5) the contribution of achieving the objectives of the Kyoto Protocol from the implementation of the Clean Development Mechanism.

According to **paragraph 25**, the information on policies and measures represents a component or chapters of the BURs and NCs and shall be submitted by the central authority for natural resources and environment (MoARDE) to the UNFCCC Secretariat in conformity with the deadline provided in paragraph 42 of respective Regulation.

Following stipulations of **paragraph 26**, the competent authority (Environment Agency) shall make available to the public in electronic form, any relevant assessment of the costs and effects of domestic policies and measures, when available, as well as any relevant information regarding the implementation of policies and measures that limit or reduce greenhouse gas emissions from sources or enhance the removals by sinks, along with any existing technical reports that underpin such assessments. The assessments should include descriptions of the models and methodological approaches used, definitions and underlying assumptions.

According to **paragraph 27**, the competent authority (Environment Agency) shall report to the central authority for natural resources and environment (MoARDE), prior to 15 December of the year

in which the reporting takes place (year X), and every two years thereafter, the national projections of anthropogenic greenhouse gas emissions by sources and removals by sinks, organized by gas or group of gases (HFCs and PFCs), and by sector. These projections shall include quantitative estimates for the following four years ending with 0 or 5 immediately following after the reporting year.

Following stipulations of **paragraph 28**, the national projections shall comprise any policies and measures adopted at the domestic level and shall include:

- 1) projections without mitigation measures, projections with measures, and projections with additional measures, where available;
- 2) total greenhouse gas projections and estimates for individual greenhouse gases;
- 3) impact of policies and measures as identified above in para. 24;
- 4) results of the sensitivity analysis performed for the projections;
- 5) all relevant references to the assessments and the technical reports underlying projections referred below to para. 29.

According to **paragraph 29**, the competent authority (Environment Agency) shall make available to the public, in electronic form, the national projections for greenhouse gas emissions by sources and removals by sinks along with relevant technical reports that underlie these projections. The projections should include descriptions of the models and methodological approaches used, definitions and underlying assumptions.

Following stipulations of **paragraph 30**, in order to ensure transparency of the information reported on applied models or methodology approach, the competent authority (Environment Agency) shall indicate:

- 1) the model used for each type of greenhouse gas and sector;
- 2) the type and specifics of the applied model (top-down, bottom-up, computing or expert judgment);
- 3) a short description of the model, the purpose of its development, how it was adapted to the needs of the conducted study and the strengths and weaknesses of the model.

According to **paragraph 31**, in order to ensure transparency of the information reported on work assumptions and baseline variables used in the development of national projections, the competent authority (Environment Agency) shall indicate:

- 1) the expected rate of GDP growth or decrease;
- 2) projections for population number;
- 3) the expected rate of growth or decrease of taxes and dues;
- 4) projections for international fuel prices;
- 5) other relevant data.

Following stipulations of **paragraph 32**, the information on national projections represents a component or chapter of the BURs and NCs and shall be submitted by the central authority for natural resources and environment (MoARDE) to the UNFCCC Secretariat in conformity with the deadline provided below in para. 42.

The competent authority (Environment Agency) shall report to the central authority for natural resources and environment (MoARDE), prior to 15 December of the year in which the reporting takes place (year X), and every four years thereafter, the following updated information:

- 1) climate modelling, climate projections and scenarios, believed to be relevant to the assessment of climate change impacts and vulnerability, including impact categories such as extreme temperatures, droughts, floods and other extreme weather events;
- 2) updated information on key economic, social and/or environmental vulnerabilities or risks related to current and expected climate change impacts;
- 3) updated information on both observed and potential future impacts of climate change;
- 4) updated information on progress on adaptation policies, strategies or plans that illustrate the domestic medium- and long-term approaches to addressing risks and vulnerability through its broader domestic development and sectoral planning;

- 5) updated information on adaptation measures taken to address current risks and vulnerabilities and on their status of implementation; and updated information on progress and, where possible, outcomes and the effectiveness of already implemented adaptation measures.

According to **paragraph 34**, the information on vulnerabilities to climate change, impact of climate change and impact of adaptation actions represents a component or chapter of the NCs and shall be submitted by the central authority for natural resources and environment (MoARDE) to the UNFCCC Secretariat in conformity with the deadline provided below in para. 42.

Following stipulations of **paragraph 35**, the competent authority (Environment Agency) shall submit to the central authority for natural resources and environment (MoARDE), prior to 15 December of the year in which the reporting is done (year X), and every two years thereafter, the summary information on the support provided by developed countries, specified in Annex I to the UNFCCC, in compliance with the UNFCCC, including information on financial resources received through:

- 1) Global Environment Facility (GEF), Special Climate Change Fund (SCCF), the Adaptation Fund (AF), the Green Climate Fund (GCF) and the UNFCCC Trust Fund for Supplementary Activities;
- 2) Other multilateral climate change funds;
- 3) Multilateral financial institutions, including regional development banks;
- 4) Specialized United Nation bodies;
- 5) Contributions received through bilateral, regional and other channels.

According to **paragraph 36**, the summary information on the support provided by developed countries, shall be presented in tabular and textual form for the past two calendar or financial years, including the following:

- 1) The amount of financial resources received from developed countries (in original/national currency and its equivalent in United States dollars/international currency);
- 2) The type of support received (for mitigation, adaptation and cross-cutting activities);
- 3) The status (planned or actually disbursed);
- 4) The source of funding (official development assistance; other official financial flows);
- 5) Financial instrument (grants, concessional lending, non-concessional lending, equity financing);
- 6) The sector (energy, industry, transport, buildings, agriculture, forestry, waste management, water and sanitation, cross-cutting).

Following stipulations of **paragraph 37**, the competent authority (Environment Agency) shall provide to the central authority for natural resources and environment (MoARDE) information on financial flows granted by developed countries, based on so-called "Rio Markers" for climate change mitigation-related support and climate-change adaptation-related support introduced by the OECD Development Assistance Committee and methodological information concerning the implementation of the climate change Rio markers methodology, when it is relevant or applicable under UNFCCC. It shall include:

- 1) definitions and methodologies used to determine the support provided;
- 2) information on the amount of mitigated greenhouse gas emissions, implemented adaptation measures to climate change, capacity building and technology transfer received in conformity with the decisions adopted by the bodies set up by the UNFCCC, the Kyoto Protocol, the Paris Agreement or on the basis of agreements resulting from them or succeeding them.

According to **paragraph 38**, the information on financial and technology support provided by developed countries represents a component or chapter of the BURs and the NCs and shall be submitted by the central authority for natural resources and environment (MoARDE) to the UNFCCC Secretariat in conformity with the deadline provided below in para. 42.

Following stipulations of **paragraph 39**, the competent authority (Environment Agency) shall elaborate the Biennial Update Report – once in two years, and the National Communication – once in four years.

According to **paragraph 40**, the Biennial Update Report is elaborated in conformity with the requirements of the UNFCCC and contains the following parts:

- 1) Executive Summary;
- 2) National circumstances relevant to anthropogenic greenhouse gas emissions and removals;
- 3) National Greenhouse Gases Inventory;
- 4) Information on mitigation actions and their effects;
- 5) Greenhouse gas emissions projections;
- 6) Financial, technical and capacity constraints and needs;
- 7) Domestic MRV arrangements;
- 8) Other relevant information to achieving the objectives of the Convention.

Following stipulations of **paragraph 41**, the National Communication is elaborated in conformity with the requirements of the UNFCCC and contains the following parts:

- 1) Executive Summary;
- 2) National circumstances relevant to anthropogenic greenhouse gas emissions and removals;
- 3) National Greenhouse Gases Inventory;
- 4) Information on mitigation actions and their effects;
- 5) Greenhouse gas emissions projections;
- 6) Vulnerability assessment, climate change impacts and adaptation measures;
- 7) Financial, technical and capacity constraints and needs;
- 8) Other relevant information to achieving the objectives of the Convention.

According to **paragraph 42**, the central authority for natural resources and environment (MoARDE) shall submit to the UNFCCC Secretariat, prior to 31 December of the year in which the reporting is done, the Biennial Update Report – once in two years, in conformity with Decisions 1/CP.16 and 2/CP.17, as well as the National Communication – once in four years, in conformity with Article 12 of the UNFCCC and Decision 17/CP.8.

Following stipulations of **paragraph 43**, the competent authority (Environment Agency) will make available on its official website the National Communications and Biennial Update Reports of the Republic of Moldova to the UNFCCC in the national official language and in English. The competent authority (Environment Agency) shall provide to responsible public institutions and authorities that are part of the NSMR, as well as to identified respondents' providers of data, activity data and emission factors needed to estimate the anthropogenic greenhouse gas emissions, as provided in tables 2–6 of the Regulation, questionnaires to be used for reporting.

According to **paragraph 45**, data collection and processing necessary for drawing up the national inventory, as provided in tables 2–6 of the Regulation, are obligations of the responsible public institutions and authorities, upon their inclusion in the Program for statistical works annually approved by the Government.

Following stipulations of **paragraph 46**, the competent authority (Environment Agency) shall use national official data and information provided by the central statistical authority, in case of differences between data obtained for the same indicator.

According to **paragraph 47**, in respect to data and information needed for assessing and estimating greenhouse gas emissions levels, which are not covered by the Program for statistical works, the competent authority (Environment Agency) shall hold consultations with the responsible public authorities and institutions that are part of the NSMR. The results of the consultations shall be recorded in a Protocol, in which procedures shall be established for carrying out specific studies and responsibilities for them.

Following stipulations of **paragraph 48**, the competent authority (Environment Agency) shall request from the public administration authority that ensures economic security of the state,



implements customs policy and directs its activity in the Republic of Moldova, the necessary data for compiling the national inventory, as provided in tables 2–6, according to the tariff headings of the Classification of Goods Nomenclature (hereinafter – CGM), approved by Law No. 172 as of 25 July 2014 on the approval of Classification of Goods Nomenclature.

According to **paragraph 49**, data exchange between the competent authority (Environment Agency) and responsible public institutions and authorities that are part of the NSMR shall be free of charge under the terms provided by this Regulation, in compliance with the provisions of Chapter VII of Law No. 93/2017 on Official Statistics.

Following stipulations of **paragraph 50**, in order to ensure accuracy and proper identification of uncertainty of processed activity data and emission factors, the authority responsible for the inventory may contract consultancy services, studies for the development of emission factors, for development of specific software as well as any other studies, analyses and research necessary to ensure the well-functioning of the NSMR.

According to **paragraph 51**, the data provided in the annexes to Governmental Decision No. 1277 as of 26.12.2018, shall be updated by GDs, upon proposal of the central authority for natural resources and environment (MoARDE) according to development and dynamics of data and information, as well as changes in the institutional framework or other changes.

Following stipulations of **paragraph 52**, the supervisory body in the field of environment protection exercises the supervisory function for ensuring compliance with the provisions of this Decision in conformity with Article 26 of Law No 1515/1993 on Environmental Protection and Law No 131/2012 on state control on the activity of entrepreneurship.

According to **paragraph 53**, failure to comply with the provisions the Regulation from Annex 1 of the Governmental Decision No. 1277 as of 26.12.2018, entails disciplinary, administrative or criminal liability under the effective law.

## Chapter 3. Calculations Tools and Methodologies for National MRV System under the UNFCCC in the Republic of Moldova

### 3.1 Calculations Tools and Methodologies for National MRV System

In accordance with the ‘*Regulation on the Establishment and Functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and other Information Relevant to Climate Change*’ (see Annex 1 of the Governmental Decision No. 1277 as of 26 December 2018), specifically following stipulations of **paragraph 11**, the National Inventory System (hereinafter – NIS) is designed and operated aiming to ensure transparency, consistency, comparability, completeness and accuracy of the national inventory of greenhouse gas emissions as defined in the 2006 IPCC Guidelines.

According to **paragraph 12**, the competent authority (Environment Agency), through direct cooperation with responsible public authorities and institutions that are part of the NSMR and with the support of the central authority for natural resources and environment (MoARDE), shall ensure the establishment and operation of the NIS, by periodically improving the institutional, legal and procedural framework, in conformity with the national and international legal framework.

Following stipulations of **paragraph 13**, within the NIS, the competent authority (Environment Agency) develops, once in two years, the national inventory of greenhouse gas emissions. The national inventory data are listed according to the format established in Table 1 of the ‘*Regulation on the Establishment and Functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and other Information Relevant to Climate Change*’ (see Annex 1 of the Governmental Decision No. 1277 as of 26 December 2018).

In the case of *direct* greenhouse gases emissions, the national inventory is developed in conformity with the 2006 IPCC Guidelines, using the reporting software recommended by the IPCC and UNFCCC, and in the case of *indirect* greenhouse gases emissions, the national inventory is developed in conformity with the most recent editions of the “EMEP/EEA air pollutant emission inventory guidebook. Technical guidance to prepare national emission inventories”, published and periodically revised by the European Environment Agency with the UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP) Task Force on Emission Inventories and Projections responsible for the technical content of the guidebook chapters.

According to **paragraph 14**, the competent authority (Environment Agency) develops, once in two years, on the basis of the national inventory of greenhouse gas emissions, the National Inventory Report in the national official language and in English, using the structure set out in the relevant decisions of the Conference of Parties to UNFCCC, namely:

- 1) Introduction;
- 2) Greenhouse gas emission trends;
- 3) Energy Sector (description of GHG emissions from sector 1);
- 4) Industrial Processes and Product Use Sector (description of GHG emissions from sector 2);
- 5) Agriculture Sector (description of GHG emissions from sector 3);
- 6) Land Use, Land-Use Change and Forestry Sector (description of GHG emissions and sinks from sector 4);
- 7) Waste Sector (description of GHG emissions from sector 5);
- 8) Recalculations and planned improvements;
- 9) References;
- 10) Annexes.

Following stipulations of **paragraph 15**, the competent authority (Environment Agency) shall publish on its official web site, once in two years, the National Inventory Report, as well as the national inventory of greenhouse gas emissions in tabular format. The summary tables will present the greenhouse gas emissions trends by gas and sector.

## 3.2 Process for Inventory Preparation and Methodological Approaches Implied in the Previous Inventory Cycles in the Republic of Moldova

### 3.2.1 Process for Inventory Preparation

The national inventory authority (within 2005-2018 periods it was Climate Change Office of the MoARDE) adopted a centralized approach to the process of preparing the national inventory comprising the NIR and Common Reporting Format Tables (CRF)<sup>53</sup> as approved by the Decision 24/CP.19. The National Inventory preparation process is outlined in Figure 3-1 below.

The Coordinator of National GHG Inventory (Compiler of the National GHG Inventory) was responsible for compiling the estimations and ensuring consistency and quality of the inventory by producing the NIR and Chapters 2 “National GHG Inventory” from the BURs and the NCs.

Estimation of emissions by individual source categories and removals by individual sink categories was the responsibility of national experts who have more competences about individual features of source/sink categories.

The national experts, under direct guidance of the Coordinator of the National GHG Inventory, decided, by applying decision trees, on employing the best estimation methodology, and collection of AD needed for emissions estimation. For most source and sink categories methodologies used in the previous inventory cycle were applied. It was needed to collect new AD for a more recent period under review or for the entire period under review if historical AD have been amended or recalculated. If a new source/sink category was to be assessed, or a higher Tier methodology had to be used, then the Coordinator of the National GHG Inventory with the national experts would decide on which assessment methodology to use, collect most reasonable AD and EFs, calculate GHG emissions, assess uncertainties, ensured implementation of verification, QA/QC procedures acting on behalf of research and academic institutions, ministries and subordinated institutions, central administrative authorities and/or private sector. National experts produced explanatory texts for the research on estimation of emissions by individual source categories and removals by individual sink categories, as well as provided the bibliography used.

The Coordinator of National GHG Inventory (Compiler of the National GHG Inventory) was responsible for collecting and reviewing these materials, used in drafting the NIR sectoral chapters (Chapter 3 “Energy”, Chapter 4 “Industrial Processes and Product Use”, Chapter 5 “Agriculture”, Chapter 6 “LULUCF”, Chapter 7 “Waste”). The Coordinator / Compiler is also responsible for drafting other chapters (Executive Summary, Chapter 1 “Introduction”, Chapter 2 “Trends in National GHG Emissions”, Chapter 8 “Recalculations”, “Bibliography” and “Annexes”), as well as for checking the correctness of the key category analysis, compatible with the 2006 IPCC Guidelines.

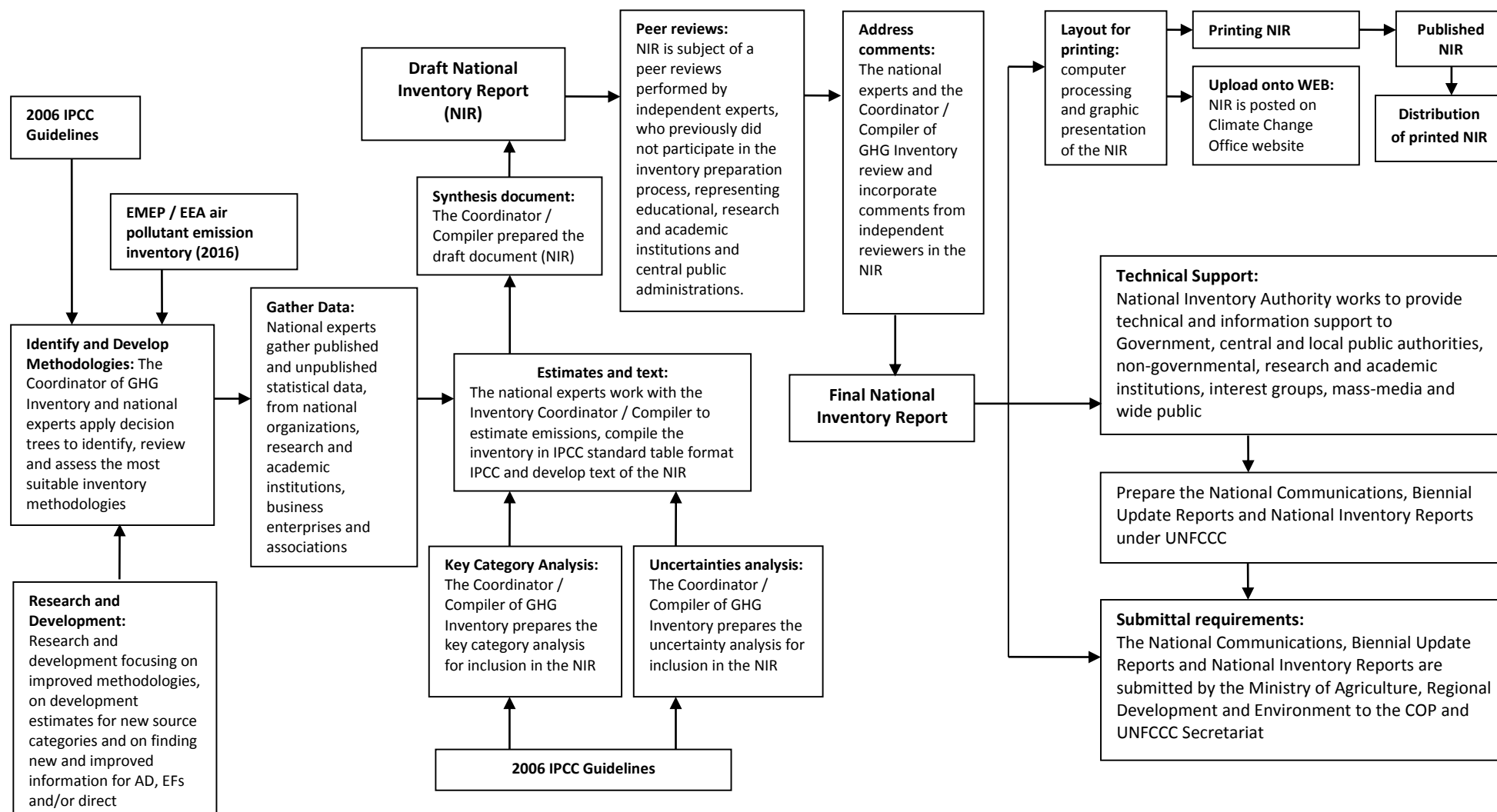
The NIR was produced in compliance with the general structure of the National Inventory Reports (NRI), as was established in the Decision 24/CP.19. In addition to NIR, the Common Reporting Format (CRF) Tables were filled-in. The Coordinator of National GHG Inventory (Compiler of the National GHG Inventory) has the task to monitor the process of producing the Sectoral and Summary CRF Tables, to ensure the consistency of results. The national experts accomplished the uncertainties analysis, as well as verification and QA/QC activities, in close cooperation with the Coordinator of National GHG Inventory (Compiler of the National GHG Inventory).

The first *QA/QC Plan* was produced in 2006 within the UNDP-GEF Regional Project “*Capacity Building for Improving the Quality of the National GHG Inventories (Central Europe and CIS region)*”, and complied with the 2006 IPCC Guidelines requirements. Subsequently, it was periodically updated during the national GHG inventory processes.

During the peer reviews, the draft version of the NIR was sent to a group of independent experts (who did not previously participate in the national inventory preparation). The purpose of the inventory peer reviews was to receive from relevant experts in the areas of major interest comments on quality of the work done, in particular on relevance of methodological approaches, EFs and AD used. The received comments were reviewed and estimations and explanatory notes to them were corrected.

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<sup>53</sup> Tables of specified format (Common Reporting Format) used in national greenhouse gas inventory systems.



**Figure 3-1:** Inventory Process in the Republic of Moldova.

Following the final review, after the incorporation of comments received in the process of peer reviews, the National Inventory Authority prepared the MS Word final version of the National Inventory Report, which used then be sent for approval to the MoARDE. When the Report was approved, the final version was electronically processed, printed and published.

Once published, the National Inventory Report, the Biennial Update Reports and/or the National Communications were submitted by the MoARDE to the UNFCCC Secretariat, in conformity with international commitments of the RM to the UNFCCC.

### **3.2.2 Methodological Issues**

#### **3.2.2.1 Methodologies, Emissions Factors and Data Sources**

The national GHG inventory is structured to match the reporting requirement of the UNFCCC and is divided into five main sectors: (1) Energy, (2) Industrial Processes and Product Use, (3) Agriculture, (4) Land Use, Land-Use Change and Forestry and (5) Waste. Each of these sectors is further subdivided, within the inventory, by source categories (Table 3-1).

Emissions of direct (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>) (no NF<sub>3</sub> emissions have been registered in the Republic of Moldova so far) greenhouse gases were estimated based on methodologies contained in the 2006 IPCC Guidelines, while the indirect emissions (NO<sub>x</sub>, CO, NMVOC and SO<sub>2</sub>) were estimated based on methodologies according to the EEA/EMEP Air Pollutant Emission Inventory Guidebook (2016).

Generally, a GHG inventory can be defined as a *“comprehensive account of anthropogenic sources of emissions and removals by sinks and associated data from source and sink categories within the inventory area over a specified time frame”*.

It can be prepared “top-down”, “bottom-up”, or using a combination approach. The Republic of Moldova’s national inventory is prepared using a “top-down” approach, providing estimates of GHG emissions at a national level.

Ideally, a GHG inventory should be developed by using direct measurements of emissions and removals from individual categories of sources or sinks in the country, considering the methodological approach “bottom-up”.

The national inventory team is continuously working to improve accuracy, completeness and transparency of its inventory. Comprehensive bottom-up inventory is neither practicable nor possible at the present time, although for some sectors, estimates are derived from individual source specific data.

To the extent possible, AD used in this report are based on officially published data: national (Statistical Yearbooks of the RM, respectively of the Administrative-Territorial Units from the Left Bank of Dniester River (Transnistria), Energy Balances etc.) and international statistical publications (UN FAO on-line database), publications of academic, research and development institutions (Institute of Pedology, Agrochemistry and Soil Protection “Nicolae Dima”, Institute of Ecology and Geography, Institute of Power Engineering, Forest Research and Management Institute, etc.), AD provided by ministries and subordinated institutions (Ministry of Economy and Infrastructure; MoARDE; Ministry of Defense; Ministry of Health, Labor and Social Protection), AD provided by administrative authorities subordinated to ministries (Environment Agency, Environmental Inspectorate, Customs Service; Agency „Moldsilva”, State Hydrometeorological Service, Agency for Geology and Mineral Resources), data from central administrative authorities (National Bureau of Statistics, Agency for Land Relations and Cadaster, Public Services Agency, Naval Agency, Civil Aeronautical Authority, Medicines and Medical Devices Agency, National Food Safety Agency), data obtained from enterprises and businesses associations (State Enterprise “Moldavian Railways”, “Moldovagaz” J.S.C., “Lafarge Cement (Moldova)” J.S.C., “Macon” J.S.C., “Glass Plant No.1” J.S.C., “Glass Container Company” J.S.C. etc.).

**Table 3-1: Summary of Methods and Emission Factors Used for Inventory Preparation Process in the Republic of Moldova**

Categories by sources and sinks	CO <sub>2</sub>		CH <sub>4</sub>		N <sub>2</sub> O		HFC		PFC		SF <sub>6</sub>	
	Methods	EF	Methods	EF	Methods	EF	Methods	EF	Methods	EF	Methods	EF
<b>1. Energy</b>												
A. Fuel Combustion	T1	D, CS	T1	D	T1	D						
1. Energy Industries	T1	D, CS	T1	D	T1	D						
2. Manufacturing Industries and Construction	T1	D, CS	T1	D	T1	D						
3. Transport	T1	D, CS	T1	D	T1	D						
4. Other Sectors	T1	D, CS	T1	D	T1	D						
5. Other	T1	D, CS	T1	D	T1	D						
B. Fugitive Emissions from Fuels	T1	D, CS	T1	D	T1	D						
1. Solid Fuels	NO	NO	NO	NO	NO	NO						
2. Oil and Natural Gas	T1	D, CS	T1	D	T1	D						
C. CO <sub>2</sub> Transport and Storage	NO	NO										
<b>2. Industrial Processes and Product Use</b>												
A. Mineral Industry	T2, T1	D, CS	NA	NA	NA	NA						
B. Chemical Industry	NO	NO	NO	NO	NO	NO						
C. Metal Industry	T2	CS, D	NO	NO	NO	NO						
D. Non-energy Products From Fuels and Solvent Use	T2, T1	D	NA	NA	NO	NO						
E. Electronic Industry	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NO	NO
F. Product Use as Substitutes for ODS	NA	NA	NA	NA	NA	NA	T2, T1	CS, D	NA	NA	NA	NA
G. Other Product Manufacture and Use	T2, T1	D	NA	NA	T1	D	NA	NA	T1	D	T1	D
H. Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>3. Agriculture</b>												
A. Enteric Fermentation			T2, T1	D, CS	NA	NA						
B. Manure Management			T2, T1	D, CS	T2, T1	D, CS						
C. Rice Cultivation			NO	NO	NA	NA						
D. Agricultural Soils			NA	NA	T1, T3	D, CS						
E. Prescribed Burning of Savannas			NO	NO	NA	NA						
F. Field Burning of Agricultural Residues			IE	IE	IE	IE						
G. Liming	NO	NO	NA	NA	NA	NA						
H. Urea Application	T1	D	NA	NA	NA	NA						
I. Other Carbon-containing Fertilizers	NO	NO	NA	NA	NA	NA						
J. Other	NO	NO	NO	NO	NO	NO						
<b>4. LULUCF</b>												
A. Forest Land	T3, T2, T1	D, CS	T1	D	T1	D						
B. Cropland	T2, T1	D, CS	T1	D	T1	D						
C. Grassland	T2	CS	NE	NE	NE	NE						
D. Wetlands	T2, T1	D, CS	NE	NE	NE	NE						
E. Settlements	T2, T1	D, CS	NE	NE	T1	D						
F. Other Land	T2, T1	D, CS	NE	NE	NE	NE						
G. Harvested Wood Products	T1	D	NA	NA	NA	NA						
H. Other	NO	NO	NO	NO	NO	NO						
<b>5. Waste</b>												
A. Solid Waste Disposal	NA	NA	T3	D, CS	NA	NA						
B. Biological Treatment of Solid Waste	NA	NA	NO	NO	NO	NO						
C. Incineration and Open Burning of Waste	T1	D	T1	D	T1	D						
D. Wastewater Treatment and Discharge	NA	NA	T1	D, CS	T1	D						
E. Other	NO	NO	NO	NO	NO	NO						
<b>6. Other</b>	NO	NO	NO	NO	NO	NO						
<b>Memo Items</b>												
International Bunkers	T2, T1	D, CS	T1	D	T1	D						
Multilateral Operations	NO	NO	NO	NO	NO	NO						
CO <sub>2</sub> Emissions from Biomass	T1	D, CS	IE	IE	IE	IE						
CO <sub>2</sub> Captured and Stored	NO	NO	NA	NA	NA	NA						

**Abbreviations:** T1 – Tier 1 Method; T2 – Tier 2 Method; C – EMEP/EEA; CS – Country Specific; D – Default; IE – Included Elsewhere; NA – Not Applicable; NE – Not Estimates; NO – Not Occurring.

### 3.2.2.2 Key Categories

According to 2006 IPCC Guidance, it is good practice to identify key categories, as it helps prioritize efforts and improve the overall quality of the national inventory. A “key category” is defined as a “source or sink category, that is prioritized within the national inventory system because its estimate has a significant influence on a country’s total inventory of direct greenhouse gases in terms of the absolute level of emissions, the trend in emissions, or both”.

Table 3-2 presents the key categories for the RM’s National GHG Inventory, 1990-2016, without LULUCF – based on the Tier 1 methodological approach – 14 key categories by level (L) and 16 key categories by trend (T); based on a Tier 2 approach – 13 key categories by level (L) and 13 key categories by trend (T); with LULUCF, based on the Tier 1 methodological approach – 20 key categories by level (L) and 20 key categories by trend (T), respectively, based on a Tier 2 approach – 18 key categories by level (L) and 17 key categories by trend (T).

**Table 3-2:** Summary Overview of the Republic of Moldova’s Key Categories for 1990-2016, Based on a Tier 1 and Tier 2 Approaches

IPCC classification	Key Categories	Gas	Without LULUCF				With LULUCF			
			T1		T2		T1		T2	
			L	T	L	T	L	T	L	T
1A1	Energy Industries	CO <sub>2</sub>	X	X	X	X	X	X	X	X
1A2	Manufacturing Industries and Construction	CO <sub>2</sub>	X		X		X	X	X	
1A3b	Road Transportation	CO <sub>2</sub>	X	X	X	X	X	X	X	X
1A3c	Railways	CO <sub>2</sub>	X	X			X			
1A4	Other Sectors	CO <sub>2</sub>	X	X	X	X	X	X	X	X
1A4	Other Sectors	CH <sub>4</sub>	X		X		X		X	
1B2	Fugitive Emissions from Oil and Natural Gas	CH <sub>4</sub>	X	X	X	X	X	X	X	X
2A1	Cement Production	CO <sub>2</sub>	X	X			X	X		
2A2	Lime Production	CO <sub>2</sub>		X						
2F1	Product Uses as Substitutes for ODS – Refrigeration and Air Conditioning	HFC		X		X				X
2F2	Product Uses as Substitutes for ODS – Foam Blowing	HFC	X	X	X	X	X	X		X
3A	Enteric Fermentation	CH <sub>4</sub>	X	X	X		X		X	
3B	Manure Management	CH <sub>4</sub>	X	X	X	X	X	X	X	
3Ba	Direct N <sub>2</sub> O Emissions from Manure Management	N <sub>2</sub> O	X		X	X	X		X	
3Bb	Indirect N <sub>2</sub> O Emissions from Manure Management	N <sub>2</sub> O			X				X	
3Da	Direct N <sub>2</sub> O Emissions from Managed Soils	N <sub>2</sub> O	X	X	X	X	X	X	X	X
3Db	Indirect N <sub>2</sub> O Emissions from Managed Soils	N <sub>2</sub> O	X		X	X	X	X	X	X
4A1	Forest Land Remaining Forest Land	CO <sub>2</sub>					X	X	X	X
4A2	Land Converted to Forest Land	CO <sub>2</sub>					X	X	X	X
4B1	Cropland Remaining Cropland	CO <sub>2</sub>					X	X	X	X
4B2	Land Converted to Cropland	CO <sub>2</sub>					X	X	X	
4C2	Land Converted to Grassland	CO <sub>2</sub>					X	X	X	X
4D2	Land Converted to Wetlands	CO <sub>2</sub>					X	X		X
4E2	Land Converted to Settlements	CO <sub>2</sub>					X	X	X	X
4G	Harvested Wood Products	CO <sub>2</sub>						X		X
5A	Solid Waste Disposal	CH <sub>4</sub>	X	X	X	X	X	X	X	X
5Da	Wastewater Treatment and Discharge – Domestic Wastewater	CH <sub>4</sub>	X	X	X	X	X	X	X	X
5Da	Wastewater Treatment and Discharge – Domestic Wastewater	N <sub>2</sub> O				X				

Abbreviations: L – Level Assessment; T – Trend Assessment; T1 – Tier 1; T2 – Tier 2.

Following the recommendations set in the 2006 IPCC Guidelines, the inventory was first disaggregated by source categories which further were used to identify key categories.

Source and sink categories were defined in conformity with the following guidelines: (1) emissions / removals from individual source / sink categories identified according to standard classification, were expressed CO<sub>2</sub> equivalent units, estimated by using the GWP; (2) a category should be identified for each gas emitted by the sources and sinks, since the methods, emission factors, and related uncertainties differ for each gas; (3) source and sink categories that use the same emission factors based on common assumptions were aggregated before analysis.

Key categories were identified from two perspectives: (1) the first analysis the emission contribution that each category makes to the national total; and (2) the second perspective analysis the trend of emission contributions from each category to identify where the greatest absolute changes (either increases or reductions) have taken place over a given time.

The per cent contributions to both levels (L), and trends (T), in emissions are calculated and sorted from greatest to least (see also Annex 1 of the NIR). When a Tier 1 approach was used, a 95 per cent cumulative contribution threshold has been used in this analysis to define an upper boundary for the key category identification, respectively when a Tier 2 approach was used (considering AD and EFs uncertainties used to estimate GHG emissions for individual source/sink categories), a 90 per

cumulative contribution threshold has been used in this analysis to define an upper boundary for the key category identification.

The Key Category Analysis was carried out using the Key Category Calculation Tool developed by the United States Environment Protection Agency (US EPA v2.5)<sup>54</sup>.

### 3.2.2.3 *Quality Assurance and Quality Control*

Following the recommendations from the 2006 IPCC Guidelines, national inventories have to be transparent, well documented, consistent, complete, comparable, assessed for uncertainties, subject to verification and QA/QC.

The 2006 IPCC Guidelines defines the QA/QC terms as follows:

- *Quality Control (QC)* is a system of routine technical activities to measure and control the quality of the inventory as it is being developed. A basic QC system should provide routine and consistent checks to ensure data integrity, correctness, and completeness; identify and address errors and omissions; and document and archive inventory material and record all QC activities.
- *Quality Assurance (QA)* comprises a planned system of review procedures conducted by personnel not directly involved in the inventory compilation and development process.

As a part of continuous efforts to develop a transparent and reliable inventory, the Republic of Moldova developed a “*Quality Assurance and Quality Control Plan*”.

The key attributes of the “*Quality Assurance and Quality Control Plan*” include detailed specific procedures (Figure 3-2) and standard verification and quality control forms and checklists, by using Tier 1 (general procedures) and Tier 2 (source-specific procedures), that serve to standardize the process of implementing quality assurance and quality control activities meant to ensure the quality of the national inventory; peer review carried out by experts not directly involved in the national inventory development process; data quality check including by comparing the sets of data obtained from different sources; inventory planning and coordination at an inter-institutional level; as well as the continuous documentation and archiving of all materials used in inventory preparation process.

It is well known that inventory development implies huge amounts of information that has to be gathered, handled and stored. The process sustainability is ensured through a good management and archiving of materials used along the inventory process.

In the Republic of Moldova, the National Inventory Team has a sufficiently transparent documentation allowing to fully reproducing the GHG emissions estimates. A standard system for documenting and archiving numeric and qualitative information, in compliance with the 2006 IPCC Guidelines recommendations was used. The activity data sources were documented by inserting references to these into the inventory document text. Estimation methods & emission factors sources and their selection justification are documented in the corresponding chapters of the NIR. Recalculations made are documented and argued both in sectoral Chapters (3-7), as well as in the Chapter 8 “Recalculations and Improvements” of the NIR.

Individual source and sink categories related documentation include: (1) list of personnel responsible for estimates and individual responsibilities as per Terms of Reference; (2) reference sources for the activity data used; (3); justification of emission factors estimation methods selection; (4) samples of GHG emissions estimation process (in Excel format); (5) uncertainties analysis results by individual source and sink categories; (6) annexes; (7) references.

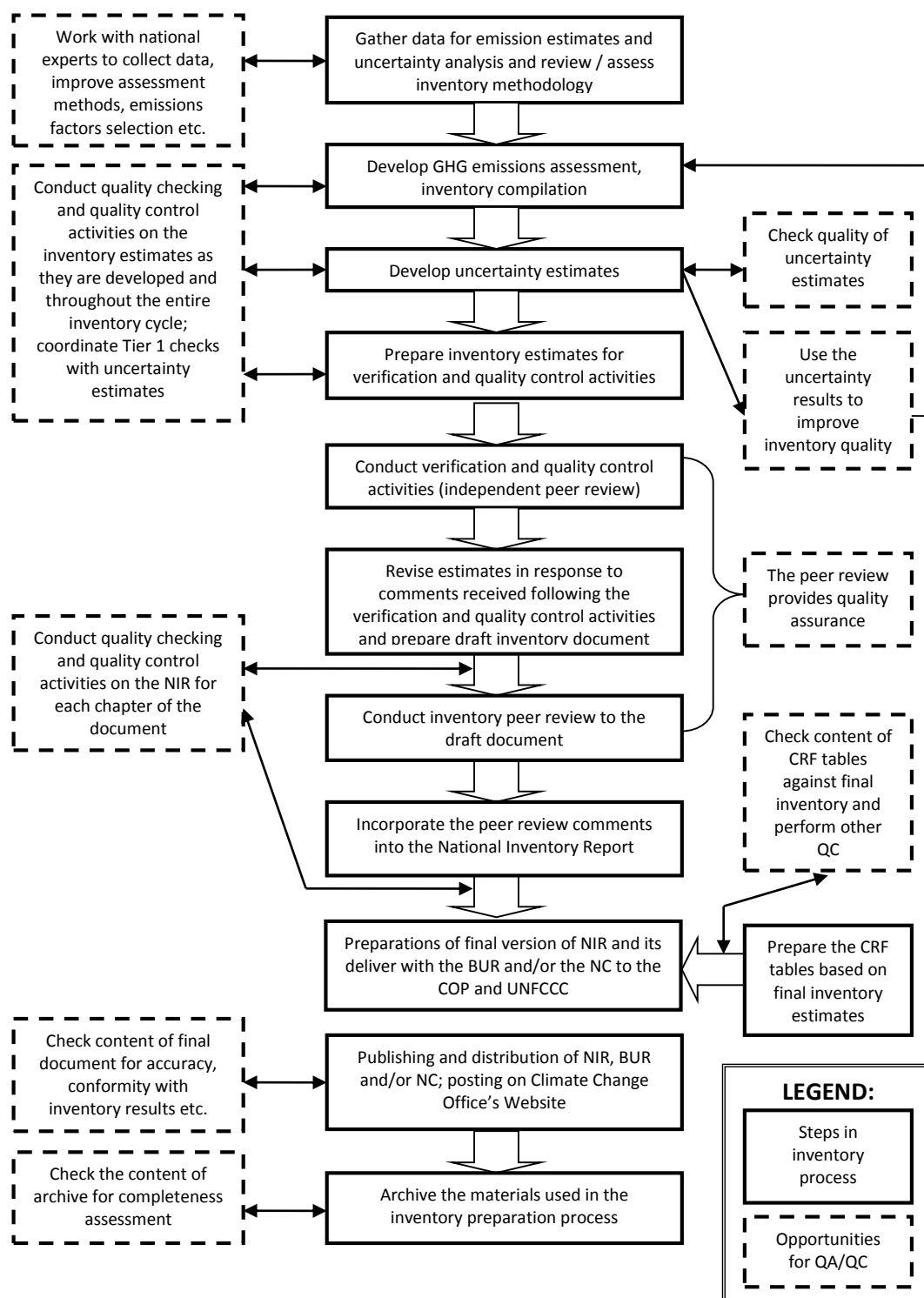
Materials used in the inventory development process were archived both electronically and on hard copies. As the entity responsible for the national inventory development, the Climate Change Office holds all documentation used for its compilation.

Summing up, one can assert that transparency and credibility of a national inventory are ensured through: (1) the ability to demonstrate, through appropriate documentation, transparency of inventory development process; (2) further improvements of the inventory process and its basic products; and

<sup>54</sup> <[https://19january2017snapshot.epa.gov/climatechange/national-ghg-inventory-capacity-building\\_.html](https://19january2017snapshot.epa.gov/climatechange/national-ghg-inventory-capacity-building_.html)>



(3) ensuring that the inventory process employed consistent approaches allowing to obtain comparable results for all source and sink categories.



**Figure 3-2: The Role of QA/QC Activities in the Inventory Preparing Process.**

It is obvious that in comparison with the previous inventory cycles, by continuous integration of QA/QC activities, the Republic of Moldova ensures a better-quality inventory.

#### 3.2.2.4 Recalculations

During the latest inventory cycle in the frame of the BUR2 of the Republic of Moldova to the UNFCCC (2019), the National Inventory Team revised and recalculated GHG emissions and CO<sub>2</sub> removals for each calendar year covered by the inventory for the period from 1990 through 2015, a component part of the Fourth National Communication of the Republic of Moldova under the UNFCCC (2018).

These activities were carried out during the on-going process of improving the quality of the National GHG Inventory (including, by considering the updated activity data, higher tier methodological approaches available in the 2006 IPCC Guidelines, updating country-specific emission factors used, and errors correcting actions). Under the current inventory cycle, improvements were made in all sectors (move to higher tier methodologies, revision of emission factors, activity data, etc.), entailing the need to make recalculations of national GHG emissions for the time period from 1990 through 2015, reflected in the Fourth National Communication of the Republic of Moldova under the UNFCCC (Chapter 2 „National GHG Inventory”).

#### **3.2.2.5 Uncertainty Assessment**

Uncertainty estimates are an essential element of a complete and transparent emissions inventory. Uncertainty information is not intended to challenge the validity of inventory estimates, but to help prioritize efforts to improve the accuracy of future inventories and guide future decisions on methodological choice.

While the Republic of Moldova’s National Inventory Team calculated the emission estimates with the highest possible accuracy, uncertainties are associated to a varying degree with the development of emission estimates for any inventory. Some of current estimates, such as those for CO<sub>2</sub> emissions from fossil fuels combustion or from cement production are considered to have minimal uncertainty associated with them. For some other categories of emissions, however, a lack of data, the use of emission factors used by default or an incomplete understanding of how emissions are generated increases the uncertainty surrounding the estimates presented.

Additional research in the following areas could help reduce uncertainty in the RM’s Inventory:

- *Incorporating excluded emission sources.* Quantitative estimates for some of the sources and sinks of GHG emissions are not available at this time (for example, GHG emissions from source category 5B “Biological Treatment of Solid Waste”).
- *Improving the accuracy of emission factors.* Further research is needed in some cases to improve the accuracy of emission factors used to calculate emissions from a variety of sources (for example, the accuracy of current emission factors applied to CH<sub>4</sub> fugitive emissions from oil and natural gas, emissions of CO<sub>2</sub> from solvents and other products, indirect N<sub>2</sub>O emissions from manure management and indirect N<sub>2</sub>O emissions from agricultural soils etc., is highly uncertain).
- *Collecting more detailed activity data.* Although methodologies for estimating emissions for some sources exist, problems arise in obtaining activity data at a level of detail in which aggregate emission factor can be applied, in particular the ability to estimate emissions of F-gases within Sector 2 “Industrial Processes and Product Use”.

The overall inventory uncertainty was estimated using a Tier 1 methodological approach. Emissions evaluated under the RM’s National GHG Inventory reflect current best estimates; in some cases, however, estimates are based on approximate methodologies, assumptions, and incomplete data. As new information become available in the future, the RM’s inventory team will continue to improve, revise and recalculate its GHG emission estimates.

#### **3.2.2.6 Completeness Assessment**

Republic of Moldova’s National GHG Inventory is, mostly, a complete inventory of the following direct GHG – CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC and SF<sub>6</sub>. The national inventory includes also the indirect GHGs such as: CO, NO<sub>x</sub>, NMVOC and SO<sub>2</sub>.

Despite the effort to cover all existent sources and sinks, the inventory still has some gaps, most being determined by lack of activity data needed to estimate certain emissions and removals, such as: emissions of HFCs from source categories 2F3 “Fire Protection”, 2F5 “Solvents” and 2F6 “Other Applications”; CH<sub>4</sub> emissions from source category 5B “Biological Treatment of Solid Waste”.

As part of the inventory improvement plan, during the future inventory activities, the inventory team will continue the efforts to identify new and relevant data for the GHG emissions/removals assessment from the respective categories.

## **Chapter 4. Assessment of the Coverage Expansion of the Current MRV System to Meet the Requirements of the ETF of Paris Agreement**

### **4.1 Reporting requirements relevant for the Republic of Moldova – Decision 1/CP.21 ‘Adoption of the Paris Agreement’**

The Paris Agreement (PA) has been approved at COP 21 in Paris through Decision 1/CP.21 ‘Adoption of the Paris Agreement’.

In accordance with **Article 2**, the PA has been designed to **enhance the implementation of the UNFCCC, including its objective, aiming to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:**

- (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;*
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and*
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.*

In accordance with the **Article 2, paragraph 3**, the PA will be implemented *to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.*

In accordance with the **Article 4, paragraph 2** of the PA:

*“Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions”.*

In accordance with the **Article 4, paragraph 8** of the PA:

*“In communicating their nationally determined contributions, all Parties shall provide the information necessary for clarity, transparency and understanding in accordance with decision 1/CP.21 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to this Agreement”.*

In accordance with the **Article 4, paragraph 9** of the PA:

*“Each Party shall communicate a nationally determined contribution every five years in accordance with decision 1/CP.21 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to this Agreement and be informed by the outcomes of the global stocktake referred to in Article 14”.*

In accordance with the **Article 4, paragraph 13** of the PA:

*“Parties shall account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement”.*

In accordance with the **Article 4, paragraph 14** of the PA:

*“In the context of their nationally determined contributions, when recognizing and implementing mitigation actions with respect to anthropogenic emissions and removals, **Parties should take into account, as appropriate, existing methods and guidance under the Convention, in the light of the provisions of paragraph 13 of this Article**”.*

In accordance with the **Article 4, paragraph 19** of the PA:

*“All Parties **should** strive to formulate and communicate **long-term low greenhouse gas emission development strategies**, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances”.*

In accordance with the **Article 7, paragraph 9** of the PA:

*“Each Party **shall**, as appropriate, **engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions**, which may include:*

- (a) The implementation of **adaptation actions**, undertakings and/or efforts;*
- (b) The process to **formulate and implement national adaptation plans**;*
- (c) The **assessment of climate change impacts and vulnerability**, with a view to formulating nationally determined prioritized actions, taking into account vulnerable people, places and ecosystems;*
- (d) **Monitoring and evaluating and learning from adaptation plans, policies, programmes and actions**; and*
- (e) Building the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources”.*

In accordance with the **Article 7, paragraph 10** of the PA:

*“Each Party **should**, as appropriate, **submit and update periodically an adaptation communication**, which may include its priorities, implementation and support needs, plans and actions, without creating any additional burden for developing country Parties”.*

In accordance with the **Article 7, paragraph 11** of the PA:

*“The **adaptation communication** referred to in paragraph 10 of this Article **shall be**, as appropriate, **submitted and updated periodically, as a component of or in conjunction with other communications or documents, including a national adaptation plan, a nationally determined contribution** as referred to in Article 4, paragraph 2, and/or a **national communication**”.*

In accordance with the **Article 13, paragraph 1** of the PA:

*“In order to build mutual trust and confidence and to promote effective implementation, an **enhanced transparency framework for action and support**, with built-in flexibility which takes into account Parties’ different capacities and builds upon collective experience **is hereby established**”.*

In accordance with the **Article 13, paragraph 2** of the PA:

*“The **transparency framework** shall provide flexibility in the implementation of the provisions of this Article to those developing country Parties that need it in the light of their capacities. The **modalities, procedures and guidelines** referred to in paragraph 13 of this Article shall reflect such flexibility”.*

In accordance with the **Article 13, paragraph 4** of the PA:

*“The **transparency arrangements under the Convention**, including national communications, biennial reports and biennial update reports, international assessment and review and international consultation and analysis, **shall form part of the experience drawn upon for the development of the modalities, procedures and guidelines under paragraph 13 of this Article**”.*

In accordance with the **Article 13, paragraph 5** of the PA:

*“The purpose of the framework for transparency of action is to provide a clear understanding of climate change action in the light of the objective of the Convention as set out in its Article 2, including clarity and tracking of progress towards achieving Parties’ individual nationally determined contributions under Article 4, and Parties’ adaptation actions under Article 7, including good practices, priorities, needs and gaps, to inform the global stocktake under Article 14”.*

In accordance with the **Article 13, paragraph 6** of the PA:

*“The purpose of the framework for transparency of support is to provide clarity on support provided and received by relevant individual Parties in the context of climate change actions under Articles 4, 7, 9, 10 and 11, and, to the extent possible, to provide a full overview of aggregate financial support provided, to inform the global stocktake under Article 14”.*

In accordance with the **Article 13, paragraph 7** of the PA:

*“Each Party shall regularly provide the following information:*

- (a) A national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties serving as the meeting of the Parties to this Agreement; and*
- (b) Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4”.*

In accordance with the **Article 13, paragraph 8** of the PA:

*“Each Party should also provide information related to climate change impacts and adaptation under Article 7, as appropriate”.*

In accordance with the **Article 13, paragraph 10** of the PA:

*“Developing country Parties should provide information on financial, technology transfer and capacity-building support needed and received under Articles 9, 10 and 11”.*

In accordance with the **Article 13, paragraph 11** of the PA:

*“Information submitted by each Party under paragraphs 7 and 9 of this Article shall undergo a technical expert review, in accordance with decision 1/CP.21. For those developing country Parties that need it in the light of their capacities, the review process shall include assistance in identifying capacity-building needs. In addition, each Party shall participate in a facilitative, multilateral consideration of progress with respect to efforts under Article 9, and its respective implementation and achievement of its nationally determined contribution”.*

In accordance with the **Article 13, paragraph 12** of the PA:

*“The technical expert review under this paragraph shall consist of a consideration of the Party’s support provided, as relevant, and its implementation and achievement of its nationally determined contribution. The review shall also identify areas of improvement for the Party, and include a review of the consistency of the information with the modalities, procedures and guidelines referred to in paragraph 13 of this Article, taking into account the flexibility accorded to the Party under paragraph 2 of this Article. The review shall pay particular attention to the respective national capabilities and circumstances of developing country Parties”.*

In accordance with the **Article 13, paragraph 13** of the PA:

*“The Conference of the Parties serving as the meeting of the Parties to this Agreement shall, at its first session, building on experience from the arrangements related to transparency under the Convention, and elaborating on the provisions in this Article, adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support”.*

In accordance with the **Article 13, paragraph 14** of the PA:

*“Support shall be provided to developing countries for the implementation of this Article”.*

In accordance with the **Article 13, paragraph 15** of the PA:

*“Support shall also be provided for the building of transparency-related capacity of developing country Parties on a continuous basis”.*

In accordance with the **Article 14, paragraph 1** of the PA:

*“The Conference of the Parties serving as the meeting of the Parties to this Agreement shall periodically take stock of the implementation of this Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals (referred to as the “global stocktake”). It shall do so in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science”.*

In accordance with the **Article 14, paragraph 2** of the PA:

*“The Conference of the Parties serving as the meeting of the Parties to this Agreement shall undertake its first global stocktake in 2023 and every five years thereafter unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to this Agreement”.*

In accordance with the **Article 14, paragraph 3** of the PA:

*“The outcome of the global stocktake shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international cooperation for climate action”.*

## **4.2 Reporting requirements relevant for the Republic of Moldova – Decision 18/CMA.1 ‘MPGs for the transparency framework for action and support referred to in Article 13 of the Paris Agreement’**

In accordance with the **Article 13, paragraph 13** of the PA:

*“The Conference of the Parties serving as the meeting of the Parties to this Agreement shall, at its first session, building on experience from the arrangements related to transparency under the Convention, and elaborating on the provisions in this Article, adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support”.*

Respective **modalities, procedures and guidelines (MPGs)** has been approved at COP 24 in Katowice (2018) through the *Decision 18/CMA.1 ‘Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement’ (FCCC/PA/CMA/2018/3/Add.2).*

### **Chapter I. Introduction**

In accordance with the **paragraph 3** of the Annex to Decision 18/CMA, the guiding principles of these MPGs are:

- (a) *Building on and enhancing the transparency arrangements under the Convention, recognizing the special circumstances of the least developed countries (LDCs) and small island developing States (SIDS), and implementing the transparency framework in a facilitative, non-intrusive, non-punitive manner, respecting national sovereignty and avoiding placing undue burden on Parties;*
- (b) *The importance of facilitating improved reporting and transparency over time;*
- (c) *Providing flexibility to those developing country Parties that need it in the light of their capacities;*
- (d) *Promoting transparency, accuracy, completeness, consistency and comparability;*

- (e) *Avoiding duplication of work and undue burden on Parties and the secretariat;*
- (f) *Ensuring that Parties maintain at least the frequency and quality of reporting in accordance with their respective obligations under the Convention;*
- (g) *Ensuring that double counting is avoided;*
- (h) *Ensuring environmental integrity.*

In accordance with the **paragraph 7** of the Annex to Decision 18/CMA, in order to facilitate continuous improvement, each Party should, to the extent possible, identify, regularly update and include as part of its **biennial transparency report (BTR)** information on areas of improvement in relation to its reporting pursuant to chapters II, III, IV, V and VI of these MPGs, including, as applicable:

- (a) *Areas of improvement identified by the Party and the technical expert review team in relation to the Party's implementation of Article 13 of the Paris Agreement;*
- (b) *How the Party is addressing or intends to address areas of improvement as referred to in paragraph 7(a), as appropriate;*
- (c) *Those developing country Parties that need flexibility in the light of their capacities are encouraged to highlight the areas of improvement that are related to the flexibility provisions used;*
- (d) *Identification of reporting-related capacity-building support needs, including those referred to in paragraph 6 above, and any progress made, including those previously identified as part of the technical expert review referred to in chapter VII.*

In accordance with the **paragraph 8** of the Annex to Decision 18/CMA:

*“Parties’ domestic plans and priorities with regard to improved reporting reported pursuant to paragraph 7 above are not subject to technical expert review, but the information may inform discussions on areas of improvement and identification of capacity-building needs between the technical expert review team and the Party concerned”.*

Following the stipulations of the **paragraph 9** of the Annex to Decision 18/CMA:

*“In accordance with Article 13, paragraphs 14 and 15, of the Paris Agreement, support shall be provided to developing country Parties for the implementation of Article 13 of the Paris Agreement and for the building of transparency-related capacity of developing country Parties on a continuous basis”.*

The **reporting format of the biennial transparency report (BTR)** is provided in **paragraph 10** of the Annex to Decision 18/CMA:

- (a) *Each Party shall provide a national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases (GHGs), in accordance with the MPGs contained in chapter II;*
- (b) *Each Party shall provide the information necessary to track progress in implementing and achieving its NDC under Article 4 of the Paris Agreement, in accordance with the MPGs contained in chapter III below;*
- (c) *Each Party should provide information on climate change impacts and adaptation under Article 7 of the Paris Agreement, in accordance with the MPGs contained in chapter IV;*
- (d) *Developed country Parties shall provide information pursuant to Article 13, paragraph 9, in accordance with the MPGs contained in chapter V. Other Parties that provide support should provide such information and, in doing so, are encouraged to use the MPGs contained in chapter V;*
- (e) *Developing country Parties should provide information on financial, technology transfer and capacity-building support needed and received under Articles 9, 10 and 11 of the Paris Agreement, in accordance with the MPGs contained in chapter VI below.*

In accordance with the **paragraph 12** of the Annex to Decision 18/CMA:

*“Notwithstanding paragraph 10 above, the **national inventory report** referred to in paragraph 10 above may be submitted as a stand-alone report or as a component of a biennial transparency report”.*

In accordance with the **paragraph 13** of the Annex to Decision 18/CMA:

*“If a Party submits an **adaptation communication** as a component of or in conjunction with a biennial transparency report, it should clearly identify which part of the report is the adaptation communication”.*

In accordance with the **paragraph 14** of the Annex to Decision 18/CMA:

*“When reporting information related to **climate change impacts and adaptation** under Article 7 of the Paris Agreement as referred to in paragraph 10(c) above, a **Party may cross-reference previously reported information and focus its reporting on updates to previously reported information**”.*

In accordance with the **paragraph 15** of the Annex to Decision 18/CMA:

*“Each Party shall transmit its **biennial transparency report, and national inventory report if submitted as a stand-alone report, via an online portal maintained by the secretariat. The secretariat shall post the reports on the UNFCCC website**”.*

In accordance with the **paragraph 16** of the Annex to Decision 18/CMA:

*“Each Party shall submit the reports referred to in paragraphs 10 and 12 above in one of the official languages of the United Nations”.*

## **Chapter II. National inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases**

### **A. Definitions**

In accordance with the **paragraph 17** of the Annex to Decision 18/CMA:

*“The definitions of the GHG inventory principles used shall be as provided in the Intergovernmental Panel on Climate Change (IPCC) 2006 IPCC Guidelines for National Greenhouse Gas Inventories (hereinafter referred to as the 2006 IPCC Guidelines), volume 1, chapter 1, section 1.4”.*

### **B. National circumstances and institutional arrangements**

In accordance with the **paragraph 18** of the Annex to Decision 18/CMA:

*“Each Party should implement and maintain national inventory arrangements, including institutional, legal and procedural arrangements for the continued estimation, compilation and timely reporting of national inventory reports in accordance with these MPGs. National inventory arrangements can vary by Party depending on their national circumstances and preferences, and change over time”.*

In accordance with the **paragraph 19** of the Annex to Decision 18/CMA, each Party shall report on the following functions related to inventory planning, preparation and management:

- (a) Its **national entity or national focal point with overall responsibility** for the national inventory;*
- (b) Its **inventory preparation process**, including division of specific responsibilities of institutions participating in the inventory preparation to ensure that sufficient activity data collection, choice and development of methods, emission factors and other parameters are in accordance with the IPCC guidelines referred to in paragraph 20 below and these MPGs;*
- (c) Its **archiving of all information for the reported time series**, including all disaggregated emission factors and activity data, all documentation about generating and aggregating data, including quality assurance/quality control (QA/QC), review results and planned inventory improvements;*



(d) *Its processes for the official consideration and approval of the inventory.*

### **C. Methods**

#### **1. Methodologies, parameters and data**

In accordance with the **paragraph 20** of the Annex to Decision 18/CMA:

*“Each Party shall use the 2006 IPCC Guidelines, and shall use any subsequent version or refinement of the IPCC guidelines agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). Each Party is encouraged to use the 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands”.*

In accordance with the **paragraph 21** of the Annex to Decision 18/CMA:

*“Each Party shall use methods from the IPCC guidelines referred to in paragraph 20 above. Each Party should make every effort to use a recommended method (tier level) for key categories in accordance with those IPCC guidelines”.*

In accordance with the **paragraph 22** of the Annex to Decision 18/CMA:

*“Each Party may use nationally appropriate methodologies if they better reflect its national circumstances and are consistent with the IPCC guidelines referred to in paragraph 20 above. In these cases, each Party shall transparently explain national methods, data and/or parameters selected”.*

In accordance with the **paragraph 23** of the Annex to Decision 18/CMA:

*“A Party may be unable to adopt a higher tier method for a particular key category owing to lack of resources. In such cases, the Party may use a tier 1 approach, and shall clearly document why the methodological choice was not in line with the corresponding decision tree of the IPCC guidelines referred to in paragraph 20 above. The Party should prioritize for future improvement any key categories for which the good practice method elaborated in the IPCC guidelines referred to in paragraph 20 above cannot be used”.*

In accordance with the **paragraph 24** of the Annex to Decision 18/CMA:

*“Each Party is encouraged to use country-specific and regional emission factors and activity data, where available, or to propose plans to develop them, in accordance with the good practice elaborated in the IPCC guidelines referred to in paragraph 20 above”.*

#### **2. Key category analysis**

In accordance with the **paragraph 25** of the Annex to Decision 18/CMA:

*“Each Party shall identify key categories for the starting year and the latest reporting year, including and excluding land use, land-use change and forestry (LULUCF) categories, using approach 1, for both level and trend assessment, by implementing a key category analysis consistent with the IPCC guidelines referred to in paragraph 20 above; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead identify key categories using a threshold no lower than 85 per cent in place of the 95 per cent threshold defined in the IPCC guidelines referred to in paragraph 20 above, allowing a focus on improving fewer categories and prioritizing resources”.*

#### **3. Time-series consistency and recalculations**

In accordance with the **paragraph 26** of the Annex to Decision 18/CMA:

*“To ensure time-series consistency, each Party should use the same methods and a consistent approach to underlying activity data and emission factors for each reported year”.*

In accordance with the **paragraph 27** of the Annex to Decision 18/CMA:

*“Each Party should use surrogate data, extrapolation, interpolation and other methods consistent with splicing techniques contained in the IPCC guidelines referred to in paragraph 20 above to estimate missing emission values resulting from lack of activity data, emission factors or other parameters in order to ensure a consistent time series”.*

In accordance with the **paragraph 28** of the Annex to Decision 18/CMA:

*“Each Party shall perform recalculations in accordance with the IPCC guidelines referred to in paragraph 20 above, ensuring that changes in emission trends are not introduced as a result of changes in methods or assumptions across the time series”.*

#### **4. Uncertainty assessment**

In accordance with the **paragraph 29** of the Annex to Decision 18/CMA:

*“Each Party shall quantitatively estimate and qualitatively discuss the uncertainty of the emission and removal estimates for all source and sink categories, including inventory totals, for at least the starting year and the latest reporting year of the inventory time series referred to in paragraphs 57 and 58 below. Each Party shall also estimate the trend uncertainty of emission and removal estimates for all source and sink categories, including totals, between the starting year and the latest reporting year of the inventory time series referred to in paragraphs 57 and 58 below, using at least approach 1, as provided in the IPCC guidelines referred to in paragraph 20 above; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead provide, at a minimum, a qualitative discussion of uncertainty for key categories, using the IPCC guidelines referred to in paragraph 20 above, where quantitative input data are unavailable to quantitatively estimate uncertainties, and are encouraged to provide a quantitative estimate of uncertainty for all source and sink categories of the GHG inventory”.*

#### **5. Assessment of completeness**

In accordance with the **paragraph 30** of the Annex to Decision 18/CMA:

*“Each Party should indicate the sources and sinks (categories, pools and gases) that are not considered in the national inventory report but for which estimation methods are included in the IPCC guidelines referred to in paragraph 20 above and explain the reasons for such exclusion”.*

In accordance with the **paragraph 31** of the Annex to Decision 18/CMA:

*“Each Party shall use notation keys where numerical data are not available when completing common reporting tables, indicating the reasons why emissions from sources and removals by sinks and associated data for specific sectors, categories and subcategories or gases are not reported. These notation keys include:*

- (a) “NO” (not occurring) for categories or processes, including recovery, under a particular source or sink category that do not occur within a Party;*
- (b) “NE” (not estimated) for activity data and/or emissions by sources and removals by sinks of GHGs that have not been estimated but for which a corresponding activity may occur within a Party;*
- (c) “NA” (not applicable) for activities under a given source/sink category that do occur within the Party but do not result in emissions or removals of a specific gas;*
- (d) “IE” (included elsewhere) for emissions by sources and removals by sinks of GHGs estimated but included elsewhere in the inventory instead of under the expected source/sink category;*
- (e) “C” (confidential) for emissions by sources and removals by sinks of GHGs where the reporting would involve the disclosure of confidential information”.*

In accordance with the **paragraph 32** of the Annex to Decision 18/CMA:

*“Each Party may use the notation key “NE” (not estimated) when the estimates would be insignificant in terms of level according to the following considerations: emissions from a category should only be considered insignificant if the likely level of emissions is below 0.05 per cent of the national total GHG emissions, excluding LULUCF, or 500 kilotonnes of carbon dioxide equivalent (kt CO<sub>2</sub> eq), whichever is lower. The total national aggregate of estimated emissions for all gases from categories considered insignificant shall remain below 0.1 per cent of the national total GHG emissions, excluding LULUCF. Parties should use approximated activity data and default IPCC emission factors to derive a likely level of emissions for the respective category. Those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead consider emissions insignificant if the likely level of emissions is below 0.1 per cent of the national total GHG emissions, excluding LULUCF, or 1,000 kt CO<sub>2</sub> eq, whichever is lower. The total national aggregate of estimated emissions for all gases from categories considered insignificant, in this case, shall remain below 0.2 per cent of the national total GHG emissions, excluding LULUCF”.*

In accordance with the **paragraph 33** of the Annex to Decision 18/CMA:

*“Once emissions or removals have been estimated for a category and if they continue to occur, each Party shall report them in subsequent submissions”.*

## **6. Quality assurance/quality control**

In accordance with the **paragraph 34** of the Annex to Decision 18/CMA:

*“Each Party shall elaborate an inventory QA/QC plan in accordance with the IPCC guidelines referred to in paragraph 20 above, including information on the inventory agency responsible for implementing QA/QC; those developing country Parties that need flexibility in the light of their capacities with respect to this provision are instead encouraged to elaborate an inventory QA/QC plan in accordance with the IPCC guidelines referred to in paragraph 20 above, including information on the inventory agency responsible for implementing QA/QC”.*

In accordance with the **paragraph 35** of the Annex to Decision 18/CMA:

*“Each Party shall implement and provide information on general inventory QC procedures in accordance with its QA/QC plan and the IPCC guidelines referred to in paragraph 20 above; those developing country Parties that need flexibility in the light of their capacities with respect to this provision are instead encouraged to implement and provide information on general inventory QC procedures in accordance with its QA/QC plan and the IPCC guidelines referred to in paragraph 20 above. In addition, Parties should apply category-specific QC procedures in accordance with the IPCC guidelines referred to in paragraph 20 above for key categories and for those individual categories in which significant methodological changes and/or data revisions have occurred. In addition, Parties should implement QA procedures by conducting a basic expert peer review of their inventories in accordance with the IPCC guidelines referred to in paragraph 20 above”.*

In accordance with the **paragraph 36** of the Annex to Decision 18/CMA:

*“Each Party should compare the national estimates of CO<sub>2</sub> emissions from fuel combustion with those obtained using the reference approach, as contained in the IPCC guidelines referred to in paragraph 20 above, and report the results of this comparison in its national inventory report”.*

## **D. Metrics**

In accordance with the **paragraph 37** of the Annex to Decision 18/CMA:

*“Each Party shall use the 100-year time-horizon global warming potential (GWP) values from the IPCC Fifth Assessment Report, or 100-year time-horizon GWP values from a subsequent IPCC assessment report as agreed upon by the CMA, to report aggregate emissions and removals of GHGs, expressed in CO<sub>2</sub> eq. Each Party may in addition also use other metrics (e.g.*

global temperature potential) to report supplemental information on aggregate emissions and removals of GHGs, expressed in CO<sub>2</sub> eq. In such cases, the Party shall provide in the national inventory document information on the values of the metrics used and the IPCC assessment report they were sourced from”.

## **E. Reporting guidance**

In accordance with the **paragraph 38** of the Annex to Decision 18/CMA:

*“Pursuant to Article 13, paragraph 7(a), of the Paris Agreement, each Party shall provide a national inventory report of anthropogenic emissions by sources and removals by sinks of GHGs. The national inventory report consists of a national inventory document and the common reporting tables. Each Party shall report the information referred to in paragraphs 39–46 below, recognizing the associated flexibilities provided for those developing country Parties that need them in the light of their capacities”.*

### **1. Information on methods and cross-cutting elements**

In accordance with the **paragraph 39** of the Annex to Decision 18/CMA:

*“Each Party shall report methods used, including the rationale for the choice of methods, in accordance with good practice elaborated in the IPCC guidelines referred to in paragraph 20 above, and the descriptions, assumptions, references and sources of information used for the emission factors and activity data used to compile the GHG inventory”.*

In accordance with the **paragraph 40** of the Annex to Decision 18/CMA:

*“Each Party shall provide information on the category and gas, and the methodologies, emission factors and activity data used at the most disaggregated level, to the extent possible, according to the IPCC guidelines referred to in paragraph 20 above, including related data references for reported emission and removal estimates for any country-specific category and gas that is not included in the IPCC guidelines referred to in paragraph 20 above”.*

In accordance with the **paragraph 41** of the Annex to Decision 18/CMA:

*“Each Party shall describe the key categories, including information on the approach used for their identification, and information on the level of disaggregation used, in accordance with paragraph 25 above”.*

In accordance with the **paragraph 42** of the Annex to Decision 18/CMA:

*“Each Party shall report the individual and cumulative percentage contributions from key categories, for both level and trend, consistent with the IPCC guidelines referred to in paragraph 20 above and the provisions referred to in paragraph 25 above”.*

In accordance with the **paragraph 43** of the Annex to Decision 18/CMA:

*“Each Party shall report recalculations for the starting year referred to in paragraphs 57 and 58 below and all subsequent years of the inventory time series, together with explanatory information and justifications for recalculations with an indication of relevant changes and their impact on the emission trends, in accordance with paragraphs 26–28 above”.*

In accordance with the **paragraph 44** of the Annex to Decision 18/CMA:

*“Each Party shall report the results of the uncertainty analysis as well as methods used, underlying assumptions, as applicable, and trends, at least for the starting year and the latest reporting year of the inventory time series referred to in paragraphs 57 and 58 below, in accordance with paragraph 29 above”.*

In accordance with the **paragraph 45** of the Annex to Decision 18/CMA:

*“Each Party shall report information on the reasons for lack of completeness, including information on any methodological or data gaps, in accordance with paragraphs 30–33 above”.*

In accordance with the **paragraph 46** of the Annex to Decision 18/CMA:

*“Each Party shall report the QA/QC plan and information on QA/QC procedures already implemented or to be implemented in the future, in accordance with paragraphs 34–36 above”.*

## **2. Sectors and gases**

In accordance with the **paragraph 47** of the Annex to Decision 18/CMA:

*“Each Party shall report estimates of emissions and removals for all categories, gases and carbon pools considered in the GHG inventory throughout the reported period on a gas-by-gas basis in units of mass at the most disaggregated level, in accordance with the IPCC guidelines referred to in paragraph 20 above, using the common reporting tables, including a descriptive summary and figures underlying emission trends, with emissions by sources listed separately from removals by sinks, except in cases where it may be technically impossible to separate information on emissions and removals in the LULUCF sector, and noting that a minimum level of aggregation is needed to protect confidential business and military information”.*

In accordance with the **paragraph 48** of the Annex to Decision 18/CMA:

*“Each Party shall report seven gases (CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>)); those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead report at least three gases (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) as well as any of the additional four gases (HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>) that are included in the Party’s NDC under Article 4 of the Paris Agreement, are covered by an activity under Article 6 of the Paris Agreement, or have been previously reported”.*

In accordance with the **paragraph 49** of the Annex to Decision 18/CMA:

*“Each Party reporting HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub> shall report actual emissions of the gases, providing disaggregated data by chemical (e.g. HFC-134a) and category in units of mass and in CO<sub>2</sub> eq.”.*

In accordance with the **paragraph 50** of the Annex to Decision 18/CMA:

*“Each Party shall report the following sectors: energy, industrial processes and product use, agriculture, LULUCF and waste, according to the IPCC guidelines referred to in paragraph 20 above”.*

In accordance with the **paragraph 51** of the Annex to Decision 18/CMA:

*“Each Party should provide information on the following precursor gases: carbon monoxide (CO), nitrogen oxides and non-methane volatile organic compounds (NMVOCs), as well as sulfur oxides”.*

In accordance with the **paragraph 52** of the Annex to Decision 18/CMA:

*“Each Party may report indirect CO<sub>2</sub> from the atmospheric oxidation of CH<sub>4</sub>, CO and NMVOCs. For Parties that decide to report indirect CO<sub>2</sub>, the national totals shall be presented with and without indirect CO<sub>2</sub>. Each Party should report indirect N<sub>2</sub>O emissions from sources other than those in the agriculture and LULUCF sectors as a memo item. Those estimates of indirect N<sub>2</sub>O shall not be included in national totals. Parties may provide information on other substances that have an impact on climate”.*

In accordance with the **paragraph 53** of the Annex to Decision 18/CMA:

*“Each Party should report international aviation and marine bunker fuel emissions as two separate entries and should not include such emissions in national totals but report them distinctly, if disaggregated data are available, making every effort to both apply and report according to the method contained in the IPCC guidelines referred to in paragraph 20 above for separating domestic and international emissions”.*

In accordance with the **paragraph 54** of the Annex to Decision 18/CMA:

*“Each Party should clearly indicate how feedstocks and non-energy use of fuels have been accounted for in the inventory, under the energy or industrial processes sector, in accordance with the IPCC guidelines referred to in paragraph 20 above”.*

In accordance with the **paragraph 55** of the Annex to Decision 18/CMA:

*“In the case of a Party addressing the emissions and subsequent removals from natural disturbances on managed lands in its national GHG inventory, that Party shall report information on the approach taken, and how it is consistent with IPCC guidance, as appropriate, and shall indicate if the estimates are indicated in national totals”.*

In accordance with the **paragraph 56** of the Annex to Decision 18/CMA:

*“In the case of a Party using an approach to reporting emissions and removals from harvested wood products in accordance with IPCC guidance other than the production approach, that Party shall also provide supplementary information on emissions and removals from harvested wood products estimated using the production approach”.*

### **3. Time series**

In accordance with the **paragraph 57** of the Annex to Decision 18/CMA:

*“Each Party shall report a consistent annual time series starting from 1990; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead report data covering, at a minimum, the reference year/period for its NDC under Article 4 of the Paris Agreement and, in addition, a consistent annual time series from at least 2020 onwards”.*

In accordance with the **paragraph 58** of the Annex to Decision 18/CMA:

*“For each Party, the latest reporting year shall be no more than two years prior to the submission of its national inventory report; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead have their latest reporting year as three years prior to the submission of their national inventory report”.*

## **Chapter III. Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement**

### **A. National circumstances and institutional arrangements**

In accordance with the **paragraph 59** of the Annex to Decision 18/CMA:

*“Each Party shall describe its national circumstances relevant to progress made in implementing and achieving its NDC under Article 4 of the Paris Agreement, including:*

- (a) Government structure;*
- (b) Population profile;*
- (c) Geographical profile;*
- (d) Economic profile;*
- (e) Climate profile;*
- (f) Sector details”.*

In accordance with the **paragraph 60** of the Annex to Decision 18/CMA:

*“Each Party shall provide information on how its national circumstances affect GHG emissions and removals over time”.*

In accordance with the **paragraph 61** of the Annex to Decision 18/CMA:

*“Each Party shall provide information on the institutional arrangements in place to track progress made in implementing and achieving its NDC under Article 4, including those used for tracking internationally transferred mitigation outcomes, if applicable, along with any changes in institutional arrangements since its most recent biennial transparency report”.*

In accordance with the **paragraph 62** of the Annex to Decision 18/CMA:

*“Each Party shall provide information on legal, institutional, administrative and procedural arrangements for domestic implementation, monitoring, reporting, archiving of information and stakeholder engagement related to the implementation and achievement of its NDC under Article 4”.*

In accordance with the **paragraph 63** of the Annex to Decision 18/CMA:

*“In reporting the information referred to in paragraphs 59–62 above, a Party may reference previously reported information”.*

#### **B. Description of a Party’s nationally determined contribution under Article 4 of the Paris Agreement, including updates**

In accordance with the **paragraph 64** of the Annex to Decision 18/CMA:

*“Each Party shall provide a description of its NDC under Article 4, against which progress will be tracked. The information provided shall include the following, as applicable, including any updates to information previously provided:*

- (a) Target(s) and description, including target type(s) (e.g. economy-wide absolute emission reduction, emission intensity reduction, emission reduction below a projected baseline, mitigation co-benefits of adaptation actions or economic diversification plans, policies and measures, and other);*
- (b) Target year(s) or period(s), and whether they are single-year or multi-year target(s);*
- (c) Reference point(s), level(s), baseline(s), base year(s) or starting point(s), and their respective value(s);*
- (d) Time frame(s) and/or periods for implementation;*
- (e) Scope and coverage, including, as relevant, sectors, categories, activities, sources and sinks, pools and gases;*
- (f) Intention to use cooperative approaches that involve the use of internationally transferred mitigation outcomes under Article 6 towards NDCs under Article 4 of the Paris Agreement;*
- (g) Any updates or clarifications of previously reported information (e.g. recalculation of previously reported inventory data, or greater detail on methodologies or use of cooperative approaches)”.*

#### **C. Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4 of the Paris Agreement**

In accordance with the **paragraph 65** of the Annex to Decision 18/CMA:

*“Each Party shall identify the indicator(s) that it has selected to track progress towards the implementation and achievement of its NDC under Article 4. Indicators shall be relevant to a Party’s NDC under Article 4, and may be either qualitative or quantitative”.*

In accordance with the **paragraph 66** of the Annex to Decision 18/CMA:

*“These indicators could include, as appropriate, for example: net GHG emissions and removals, percentage reduction of GHG intensity, relevant qualitative indicators for a specific policy or measure, mitigation co-benefits of adaptation actions and/or economic diversification plans or other (e.g. hectares of reforestation, percentage of renewable energy use or production, carbon neutrality, share of non-fossil fuel in primary energy consumption and non-GHG related indicators)”.*

In accordance with the **paragraph 67** of the Annex to Decision 18/CMA:

*“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”.*

In accordance with the **paragraph 68** of the Annex to Decision 18/CMA:

*“Each Party shall provide the most recent information for each selected indicator identified in paragraph 65 above for each reporting year during the implementation period of its NDC under Article 4”.*

In accordance with the **paragraph 69** of the Annex to Decision 18/CMA:

*“Each Party shall compare the most recent information for each selected indicator with the information provided pursuant to paragraph 67 above to track progress made in implementing its NDC under Article 4”.*

In accordance with the **paragraph 70** of the Annex to Decision 18/CMA:

*“For the first biennial transparency report that contains information on the end year or end of the period of its NDC under Article 4, each Party shall provide an assessment of whether it has achieved the target(s) for its NDC under Article 4 based on the relevant information described in paragraphs 59–69 above and paragraph 78 below, as applicable, and the most recent information for each selected indicator relevant to tracking progress towards the implementation and achievement of its NDC under Article 4”.*

In accordance with the **paragraph 71** of the Annex to Decision 18/CMA:

*“For the first NDC under Article 4, each Party shall clearly indicate and report its accounting approach, including how it is consistent with Article 4, paragraphs 13 and 14, of the Paris Agreement. Each Party may choose to provide information on accounting of its first NDC consistent with decision 4/CMA.1”.*

In accordance with the **paragraph 72** of the Annex to Decision 18/CMA:

*“For the second and subsequent NDC under Article 4, each Party shall provide information referred to in chapter III.B and C above consistent with decision 4/CMA.1. Each Party shall clearly indicate how its reporting is consistent with decision 4/CMA.1”.*

In accordance with the **paragraph 73** of the Annex to Decision 18/CMA:

*“Each Party shall provide any definitions needed to understand its NDC under Article 4, including those related to each indicator identified in paragraph 65 above, those related to any sectors or categories defined differently than in the national inventory report, or the mitigation co-benefits of adaptation actions and/or economic diversification plans”.*

In accordance with the **paragraph 74** of the Annex to Decision 18/CMA:

*“Each Party shall provide a description of each methodology and/or accounting approach used, as applicable for:*

- (a) Target(s), as described in paragraph 64 above;*
- (b) The construction of baselines, as described in paragraph 64 above, to the extent possible;*
- (c) Each indicator identified in paragraph 65 above”.*

In accordance with the **paragraph 75** of the Annex to Decision 18/CMA:

*“The information referred to in paragraph 74 above shall include, as applicable and available to the Party’s NDC under Article 4:*

- (a) Key parameters, assumptions, definitions, data sources and models used;*
- (b) IPCC guidelines used;*
- (c) Metrics used;*



*(d) Where applicable to its NDC, any sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, taking into account any relevant decision under the Convention, including as applicable:*

- (i) The approach used to address emissions and subsequent removals from natural disturbances on managed lands;*
- (ii) The approach used to account for emissions and removals from harvested wood products;*
- (iii) The approach used to address the effects of age-class structure in forests;*
- (e) Methodologies used to estimate mitigation co-benefits of adaptation actions and/or economic diversification plans;*
- (f) Methodologies associated with any cooperative approaches that involve the use of internationally transferred mitigation outcomes towards its NDC under Article 4, consistent with CMA guidance on cooperative approaches under Article 6;*
- (g) Methodologies used to track progress arising from the implementation of policies and measures;*
- (h) Any other methodologies related to its NDC under Article 4;*
- (i) Any conditions and assumptions relevant to the achievement of its NDC under Article 4.*

In accordance with the **paragraph 76** of the Annex to Decision 18/CMA:

*“Each Party shall also:*

- (a) Describe, for each indicator identified in paragraph 65 above, how it is related to its NDC under Article 4;*
- (b) Explain how the methodology in each reporting year is consistent with the methodology or methodologies used when communicating the NDC;*
- (c) Explain methodological inconsistencies with its most recent national inventory report, if applicable;*
- (d) Describe how double counting of net GHG emission reductions has been avoided, including in accordance with guidance developed in relation to Article 6, if relevant”.*

In accordance with the **paragraph 77** of the Annex to Decision 18/CMA:

***“Each Party shall provide the information referred to in paragraphs 65–76 above in a structured summary to track progress made in implementing and achieving its NDC under Article 4, including:***

- (a) For each selected indicator:*
  - (i) Information for the reference point(s), level(s), baseline(s), base year(s), or starting point(s) referred to in paragraph 67 above;*
  - (ii) Information for previous reporting years during the implementation period of its NDC under Article 4, identified in paragraph 68 above, as applicable;*
  - (iii) The most recent information identified in paragraph 68 above;*
- (b) Where applicable, information on GHG emissions and removals consistent with the coverage of its NDC under Article 4;*
- (c) Contribution from the LULUCF sector for each year of the target period or target year, if not included in the inventory time series of total net GHG emissions and removals, as applicable;*
- (d) Each Party that participates in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards an NDC under Article 4, or authorizes the use of mitigation outcomes for international mitigation purposes other than achievement of its NDC, shall also provide the following information in the structured summary consistently with relevant decisions adopted by the CMA on Article 6:*
  - (i) The annual level of anthropogenic emissions by sources and removals by sinks covered by the NDC on an annual basis reported biennially;*
  - (ii) An emissions balance reflecting the level of anthropogenic emissions by sources and removals by sinks covered by its NDC adjusted on the basis of corresponding adjustments undertaken by effecting an addition for internationally transferred mitigation outcomes first-*

transferred/transferred and a subtraction for internationally transferred mitigation outcomes used/acquired, consistent with decisions adopted by the CMA on Article 6;

(iii) Any other information consistent with decisions adopted by the CMA on reporting under Article 6;

(iv) Information on how each cooperative approach promotes sustainable development; and ensures environmental integrity and transparency, including in governance; and applies robust accounting to ensure inter alia the avoidance of double counting, consistent with decisions adopted by the CMA on Article 6”.

In accordance with the **paragraph 78** of the Annex to Decision 18/CMA:

*“Each Party with an NDC under Article 4 that consists of adaptation actions and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement shall provide the 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, including:*

- (a) Sectors and activities associated with the response measures;*
- (b) Social and economic consequences of the response measures;*
- (c) Challenges in and barriers to addressing the consequences;*
- (d) Actions to address the consequences”.*

In accordance with the **paragraph 79** of the Annex to Decision 18/CMA:

*“Each Party shall report the information referred to in paragraphs 65–78 above in a narrative and common tabular format, as applicable. Such common tabular formats should accommodate all types of NDC under Article 4, as appropriate”.*

**D. Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation actions and economic diversification plans, related to implementing and achieving a nationally determined contribution under Article 4 of the Paris Agreement**

In accordance with the **paragraph 80** of the Annex to Decision 18/CMA:

*“Each Party shall provide information on actions, policies and measures that support the implementation and achievement of its NDC under Article 4 of the Paris Agreement, focusing on those that have the most significant impact on GHG emissions or removals and those impacting key categories in the national GHG inventory. This information shall be presented in narrative and tabular format”.*

In accordance with the **paragraph 81** of the Annex to Decision 18/CMA:

*“To the extent possible, Parties shall organize the reporting of actions by sector (energy, transport, industrial processes and product use, agriculture, LULUCF, waste management and other)”.*

In accordance with the **paragraph 82** of the Annex to Decision 18/CMA:

*“Each Party shall provide the following information on its actions, policies and measures, to the extent possible, in a tabular format:*

- (a) Name;*
- (b) Description;*
- (c) Objectives;*
- (d) Type of instrument (regulatory, economic instrument or other);*
- (e) Status (planned, adopted or implemented);*
- (f) Sector(s) affected (energy, transport, industrial processes and product use, agriculture, LULUCF, waste management or other);*
- (g) Gases affected;*
- (h) Start year of implementation;*
- (i) Implementing entity or entities”.*

In accordance with the **paragraph 83** of the Annex to Decision 18/CMA:

*“Each Party may also provide the following information for each action, policy and measure reported:*

- (a) Costs;*
- (b) Non-GHG mitigation benefits;*
- (c) How the mitigation actions as identified in paragraph 80 above interact with each other, as appropriate”.*

In accordance with the **paragraph 84** of the Annex to Decision 18/CMA:

*“For each Party with an NDC under Article 4 of the Paris Agreement that consists of mitigation co-benefits resulting from Parties’ adaptation actions and/or economic diversification plans consistent with Article 4, paragraph 7, information to be reported under paragraphs 80, 82 and 83 above includes relevant information on policies and measures contributing to mitigation co-benefits resulting from adaptation actions or economic diversification plans”.*

In accordance with the **paragraph 85** of the Annex to Decision 18/CMA:

*“Each Party shall provide, to the extent possible, estimates of expected and achieved GHG emission reductions for its actions, policies and measures in the tabular format referred to in paragraph 82 above; those developing country Parties that need flexibility in the light of their capacities with respect to this provision are instead encouraged to report this information”.*

In accordance with the **paragraph 86** of the Annex to Decision 18/CMA:

*“Each Party shall describe the methodologies and assumptions used to estimate the GHG emission reductions or removals due to each action, policy and measure, to the extent available. This information may be presented in an annex to its biennial transparency report”.*

In accordance with the **paragraph 87** of the Annex to Decision 18/CMA:

*“Each Party should identify those actions, policies and measures that are no longer in place compared with the most recent biennial transparency report, and explain why they are no longer in place”.*

In accordance with the **paragraph 88** of the Annex to Decision 18/CMA:

*“Each Party should identify its actions, policies and measures that influence GHG emissions from international transport”.*

In accordance with the **paragraph 89** of the Annex to Decision 18/CMA:

*“Each Party should, to the extent possible, provide information about how its actions, policies and measures are modifying longer-term trends in GHG emissions and removals”.*

In accordance with the **paragraph 90** of the Annex to Decision 18/CMA:

*“Each Party is encouraged to provide detailed information, to the extent possible, on the assessment of economic and social impacts of response measures”.*

#### **E. Summary of greenhouse gas emissions and removals**

In accordance with the **paragraph 91** of the Annex to Decision 18/CMA:

*“Each Party that submits a stand-alone national inventory report shall provide a summary of its GHG emissions and removals. This information shall be provided for those reporting years corresponding to the Party’s most recent national inventory report, in a tabular format”.*

#### **F. Projections of greenhouse gas emissions and removals, as applicable**

In accordance with the **paragraph 92** of the Annex to Decision 18/CMA:

***“Each Party shall report projections pursuant to paragraphs 93–101 below; those developing country Parties that need flexibility in the light of their capacities are instead encouraged to report these projections”.***

In accordance with the **paragraph 93** of the Annex to Decision 18/CMA:

***“Projections are indicative of the impact of mitigation policies and measures on future trends in GHG emissions and removals, and shall not be used to assess progress towards the implementation and achievement of a Party’s NDC under Article 4 of the Paris Agreement unless the Party has identified a reported projection as its baseline as identified in chapter III.B above”.***

In accordance with the **paragraph 94** of the Annex to Decision 18/CMA:

***“Each Party that reports pursuant to paragraph 92 above shall report a ‘with measures’ projection of all GHG emissions and removals and may report a ‘with additional measures’ projection and a ‘without measures’ projection<sup>55</sup>”.***

In accordance with the **paragraph 95** of the Annex to Decision 18/CMA:

***“Projections shall begin from the most recent year in the Party’s national inventory report and extend at least 15 years beyond the next year ending in zero or five; those developing country Parties that need flexibility in the light of their capacities with respect to this provision have the flexibility to instead extend their projections at least to the end point of their NDC under Article 4 of the Paris Agreement”.***

In accordance with the **paragraph 96** of the Annex to Decision 18/CMA:

***“Each Party should provide information in describing the methodology used to develop the projections. This information should include:***

- (a) Models and/or approaches used and key underlying assumptions and parameters used for projections (e.g. gross domestic product growth rate/level, population growth rate/level);*
- (b) Changes in the methodology since the Party’s most recent biennial transparency report;*
- (c) Assumptions on policies and measures included in the ‘with measures’ projections and ‘with additional measures’ projections, if included;*
- (d) Sensitivity analysis for any of the projections, together with a brief explanation of the methodologies and parameters used”.*

In accordance with the **paragraph 97** of the Annex to Decision 18/CMA:

***“Each Party shall also provide projections of key indicators to determine progress towards its NDC under Article 4 of the Paris Agreement”.***

In accordance with the **paragraph 98** of the Annex to Decision 18/CMA:

***“Each Party shall include projections on a sectoral basis and by gas, as well as for the national total, using a common metric consistent with that in its national inventory report”.***

In accordance with the **paragraph 99** of the Annex to Decision 18/CMA:

***“Projections shall be presented relative to actual inventory data for the preceding years”.***

In accordance with the **paragraph 100** of the Annex to Decision 18/CMA:

***“Emission projections shall be provided with and without LULUCF”.***

In accordance with the **paragraph 101** of the Annex to Decision 18/CMA:

***“Projections shall be presented in graphical and tabular formats”.***

In accordance with the **paragraph 102** of the Annex to Decision 18/CMA:

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<sup>55</sup> A ‘with measures’ scenario encompasses currently implemented and adopted policies and measures. If provided, a ‘with additional measures’ scenario encompasses implemented, adopted and planned policies and measures. If provided, a ‘without measures’ projection excludes all policies and measures implemented, adopted and planned after the year chosen as the starting points for the projection

*“Those developing country Parties that need flexibility in the light of their capacities with respect to paragraphs 93–101 above can instead report using a less detailed methodology or coverage”.*

#### **G. Other information**

In accordance with the **paragraph 103** of the Annex to Decision 18/CMA:

*“Each Party may provide any other information relevant to tracking progress made in implementing and achieving its NDC under Article 4 of the Paris Agreement”.*

#### **Chapter IV. Information related to climate change impacts and adaptation under Article 7 of the Paris Agreement**

In accordance with the **paragraph 104** of the Annex to Decision 18/CMA:

*“Each Party should provide information related to climate change impacts and adaptation under Article 7 of the Paris Agreement, as appropriate. Providing such information is not mandatory”.*

In accordance with the **paragraph 105** of the Annex to Decision 18/CMA:

*“The information referred to below could facilitate, inter alia, recognition of the adaptation efforts of developing country Parties”.*

#### **A. National circumstances, institutional arrangements and legal frameworks**

In accordance with the **paragraph 106** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate:*

- (a) National circumstances relevant to its adaptation actions, including biogeophysical characteristics, demographics, economy, infrastructure and information on adaptive capacity;*
- (b) Institutional arrangements and governance, including for assessing impacts, addressing climate change at the sectoral level, decision-making, planning, coordination, addressing cross-cutting issues, adjusting priorities and activities, consultation, participation, implementation, data governance, monitoring and evaluation, and reporting;*
- (c) Legal and policy frameworks and regulations”.*

#### **B. Impacts, risks and vulnerabilities, as appropriate**

In accordance with the **paragraph 107** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate:*

- (a) Current and projected climate trends and hazards;*
- (b) Observed and potential impacts of climate change, including sectoral, economic, social and/or environmental vulnerabilities;*
- (c) Approaches, methodologies and tools, and associated uncertainties and challenges, in relation to paragraph 107(a) and (b) above”.*

#### **C. Adaptation priorities and barriers**

In accordance with the **paragraph 108** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate:*

- (a) Domestic priorities and progress towards those priorities;*
- (b) Adaptation challenges and gaps, and barriers to adaptation”.*

#### **D. Adaptation strategies, policies, plans, goals and actions to integrate adaptation into national policies and strategies**

In accordance with the **paragraph 109** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate:*

- (a) Implementation of adaptation actions in accordance with the global goal on adaptation as set out in Article 7, paragraph 1, of the Paris Agreement;*
- (b) Adaptation goals, actions, objectives, undertakings, efforts, plans (e.g. national adaptation plans and subnational plans), strategies, policies, priorities (e.g. priority sectors, priority regions or integrated plans for coastal management, water and agriculture), programmes and efforts to build resilience;*
- (c) How best available science, gender perspectives and indigenous, traditional and local knowledge are integrated into adaptation;*
- (d) Development priorities related to climate change adaptation and impacts;*
- (e) Any adaptation actions and/or economic diversification plans leading to mitigation co-benefits;*
- (f) Efforts to integrate climate change into development efforts, plans, policies and programming, including related capacity-building activities;*
- (g) Nature-based solutions to climate change adaptation;*
- (h) Stakeholder involvement, including subnational, community-level and private sector plans, priorities, actions and programmes”.*

#### **E. Progress on implementation of adaptation**

In accordance with the **paragraph 110** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate, on progress on:*

- (a) Implementation of the actions identified in chapter IV.D above;*
- (b) Steps taken to formulate, implement, publish and update national and regional programmes, strategies and measures, policy frameworks (e.g. national adaptation plans) and other relevant information;*
- (c) Implementation of adaptation actions identified in current and past adaptation communications, including efforts towards meeting adaptation needs, as appropriate;*
- (d) Implementation of adaptation actions identified in the adaptation component of NDCs, as applicable;*
- (e) Coordination activities and changes in regulations, policies and planning”.*

In accordance with the **paragraph 111** of the Annex to Decision 18/CMA:

*“Developing country Parties **may also include information on, as appropriate, implementation of supported adaptation actions, and the effectiveness of already implemented adaptation measures**”.*

#### **F. Monitoring and evaluation of adaptation actions and processes**

In accordance with the **paragraph 112** of the Annex to Decision 18/CMA:

*“In order to enhance their adaptation actions and to facilitate reporting, as appropriate, each Party **should report on the establishment or use of domestic systems to monitor and evaluate the implementation of adaptation actions. Parties should report on approaches and systems for monitoring and evaluation, including those in place or under development**”.*

In accordance with the **paragraph 113** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate, related to monitoring and evaluation:*

- (a) Achievements, impacts, resilience, review, effectiveness and results;*
- (b) Approaches and systems used, and their outputs;*
- (c) Assessment of and indicators for:*
  - (i) How adaptation increased resilience and reduced impacts;*
  - (ii) When adaptation is not sufficient to avert impacts;*
  - (iii) How effective implemented adaptation measures are;*

- (d) *Implementation, in particular on:*
  - (i) *Transparency of planning and implementation;*
  - (ii) *How support programmes meet specific vulnerabilities and adaptation needs;*
  - (iii) *How adaptation actions influence other development goals;*
  - (iv) *Good practices, experience and lessons learned from policy and regulatory changes, actions and coordination mechanisms”.*

In accordance with the **paragraph 114** of the Annex to Decision 18/CMA:

*“Each Party should provide information related to the effectiveness and sustainability of adaptation actions, as appropriate, including on:*

- (a) *Ownership, stakeholder engagement, alignment of adaptation actions with national and subnational policies, and replicability;*
- (b) *The results of adaptation actions and the sustainability of those results”.*

#### **G. Information related to averting, minimizing and addressing loss and damage associated with climate change impacts**

In accordance with the **paragraph 115** of the Annex to Decision 18/CMA:

*“Each interested Party may provide, as appropriate, information related to enhancing understanding, action and support, on a cooperative and facilitative basis, to avert, minimize and address loss and damage associated with climate change impacts, taking into account projected changes in climate-related risks, vulnerabilities, adaptive capacities and exposure, including, as appropriate, on:*

- (a) *Observed and potential climate change impacts, including those related to extreme weather events and slow onset events, drawing upon the best available science;*
- (b) *Activities related to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change;*
- (c) *Institutional arrangements to facilitate the implementation of the activities referred to in paragraph 115(b) above”.*

#### **H. Cooperation, good practices, experience and lessons learned**

In accordance with the **paragraph 116** of the Annex to Decision 18/CMA:

*“Each Party should provide the following information, as appropriate, related to cooperation, good practices, experience and lessons learned:*

- (a) *Efforts to share information, good practices, experience and lessons learned, including as they relate to:*
  - (i) *Science, planning and policies relevant to adaptation;*
  - (ii) *Policy innovation and pilot and demonstration projects;*
  - (iii) *Integration of adaptation actions into planning at different levels;*
  - (iv) *Cooperation to share information and to strengthen science, institutions and adaptation;*
  - (v) *Area, scale and types of cooperation and good practices;*
  - (vi) *Improving durability and effectiveness of adaptation actions;*
  - (vii) *Helping developing countries to identify effective adaptation practices, needs, priorities, and challenges and gaps in a way that is consistent with encouraging good practices;*
- (b) *Strengthening scientific research and knowledge related to:*
  - (i) *Climate, including research and systematic observation and early warning systems, to inform climate services and decision-making;*
  - (ii) *Vulnerability and adaptation;*
  - (iii) *Monitoring and evaluation”.*

#### **I. Any other information related to climate change impacts and adaptation under Article 7 of the Paris Agreement**

In accordance with the **paragraph 117** of the Annex to Decision 18/CMA:

*“Each Party may provide, as appropriate, any other information related to climate change impacts and adaptation under Article 7”.*

## **Chapter V. Information on financial, technology development and transfer and capacity-building support provided and mobilized under Articles 9–11 of the Paris Agreement**

In accordance with the **paragraph 118** of the Annex to Decision 18/CMA:

*“Developed country Parties shall provide information pursuant to Article 13, paragraph 9, of the Paris Agreement in accordance with the MPGs contained in this chapter. Other Parties that provide support should provide such information and, in doing so, are encouraged to use the MPGs contained in this chapter”.*

### **A. National circumstance, and institutional arrangements**

In accordance with the **paragraph 119** of the Annex to Decision 18/CMA:

*“Information on national circumstances and institutional arrangements relevant to reporting on the provision and mobilization of support, including:*

- (a) Description of the systems and processes used to identify, track and report on support provided and mobilized through public interventions;*
- (b) Description of challenges and limitations;*
- (c) Information on experience and good practices in relation to public policy and regulatory frameworks to incentivize further private climate financing and investment;*
- (d) Efforts taken to enhance comparability and accuracy of information reported on financial support provided and mobilized through public interventions, such as through use of international standards or harmonization with other countries, institutions and international systems”.*

In accordance with the **paragraph 120** of the Annex to Decision 18/CMA:

*“Information, if available, on national circumstances and institutional arrangements for the provision of technology development and transfer and capacity-building support”.*

### **B. Underlying assumptions, definitions and methodologies**

In accordance with the **paragraph 121** of the Annex to Decision 18/CMA:

*“In order to enhance the transparency of reporting, a description of the underlying assumptions, methodologies and definitions, as applicable, used to identify and/or report, including:*

- (a) The chosen reporting year (calendar year, fiscal year);*
- (b) The conversion between domestic currency and United States dollars;*
- (c) The status (committed, disbursed);*
- (d) The channel (bilateral, regional, multi-bilateral, multilateral);*
- (e) The funding source (official development assistance (ODA), other official flows (OOF), other);*
- (f) The financial instrument (e.g. grant, concessional loan, non-concessional loan, equity, guarantee, insurance, other (specify));*
- (g) Information on instruments and funding sources reported, including how a Party has determined finance to be concessional and/or ODA, including by using information such as grant equivalency, institution and/or instrument-based approaches;*
- (h) The type of support (e.g. adaptation, mitigation, cross-cutting);*
- (i) The sector;*
- (j) The subsector;*



- (k) Whether it supported capacity-building and/or technology development and transfer objectives;
- (l) The support as being climate-specific;
- (m) Information on the efforts taken to avoid double counting, including on:
  - (i) How double counting among multiple Parties involved in the provision of support was avoided;
  - (ii) How double counting among multiple Parties involved in the mobilization of private finance through public interventions was avoided, including the methodologies and assumptions used to attribute the mobilized resources through public interventions reported to the Party that reports them, if possible relative to the type of instrument used for the mobilization;
  - (iii) How double counting was avoided between the resources reported as provided or mobilized, and the resources used under Article 6 of the Paris Agreement by the acquiring Party for use towards the achievement of its NDC;
  - (iv) How support is attributed between multiple recipient countries, in cases where a project involves multiple recipient countries and where this information is reported on a country-by-country basis;
- (n) The definition of public and private finance, in particular where entities or funds are mixed;
- (o) How private finance was assessed as mobilized through public interventions, including by:
  - (i) Identifying a clear causal link between a public intervention and mobilized private finance, where the activity would not have moved forward, or moved forward at scale, in the absence of the Party's intervention;
  - (ii) Providing information on the point of measurement (e.g. point of commitment, point of disbursement) of the private finance mobilized as a result of the public intervention, to the extent possible in relation to the type of instrument or mechanism used for the mobilization;
  - (iii) Providing information on the boundaries used to identify finance as mobilized by public intervention;
- (p) How it seeks to ensure that support provided and mobilized through public interventions effectively addresses the needs and priorities of developing country Parties for the implementation of the Paris Agreement, as identified in country-driven strategies and instruments, such as biennial transparency reports, NDCs and national adaptation plans;
- (q) How it seeks to ensure that support provided and mobilized through public interventions is in line with the long-term goals of the Paris Agreement;
- (r) An indication of what new and additional financial resources have been provided, and how it has been determined that such resources are new and additional;
- (s) How the information provided reflects a progression from previous levels in the provision and mobilization of finance under the Paris Agreement;
- (t) Information on reporting on multilateral finance, including:
  - (i) Whether the multilateral finance reported is based on the Party's inflow contribution to a multilateral institution and/or on the Party's share in the outflow of the multilateral institution;
  - (ii) Whether and how multilateral finance has been reported as climate-specific and how the climate-specific share was calculated, including by, for example, using existing international standards;
  - (iii) Whether multilateral finance has been reported as core/general, with the understanding that the actual climate finance amount it would transfer into depends on the programming choices of the multilateral institutions;
  - (iv) Whether and how multilateral finance has been attributed to the reporting Party".

In accordance with the **paragraph 122** of the Annex to Decision 18/CMA:

*“A description of the underlying assumptions, definitions and methodologies used to provide information on technology development and transfer and capacity-building support”.*

### **C. Information on financial support provided and mobilized under Article 9 of the Paris Agreement**

#### **1. Bilateral, regional and other channels**

In accordance with the **paragraph 123** of the Annex to Decision 18/CMA:

*“Relevant information, in a tabular format, for the previous two reporting years without overlapping with the previous reporting periods, on bilateral and regional financial support provided, specifying:*

- (a) Year (calendar year, fiscal year);*
- (b) Amount (in United States dollars and domestic currency) (the face value and, on a voluntary basis, the grant-equivalent value);*
- (c) Recipient, including, to the extent possible, information on the recipient region or country and the title of the project, programme, activity or other (specify);*
- (d) Status (disbursed, committed);*
- (e) Channel (bilateral, regional, multi-bilateral, other (specify));*
- (f) Funding source (ODA, OOF, other (specify));*
- (g) Financial instrument (e.g. grant, concessional loan, non-concessional loan, equity, guarantee, insurance, other (specify));*
- (h) The type of support (e.g. adaptation, mitigation or cross-cutting);*
- (i) Sector (e.g. energy, transport, industry, agriculture, forestry, water and sanitation, cross-cutting, other (specify));*
- (j) Subsector, as available;*
- (k) Additional information, as available (such as project/programme details, implementing agency and, to the extent possible, link to relevant project/programme documentation);*
- (l) Whether it contributes to capacity-building and/or technology development and transfer objectives, as available.”.*

#### **2. Multilateral channels**

In accordance with the **paragraph 124** of the Annex to Decision 18/CMA:

*“Relevant information, in a tabular format, for the previous two reporting years without overlapping with the previous reporting periods, on financial support provided through multilateral channels, specifying:*

- (a) Year (calendar year, fiscal year);*
- (b) Institution (e.g. multilateral fund, the operating entities of the Financial Mechanism, entities of the Technology Mechanism, multilateral financial institution, international organization, other (specify));*
- (c) Amount (in United States dollars and domestic currency) (the face value and, on a voluntary basis, the grant-equivalent value);*
- (d) Core-general or climate-specific, as applicable;*
- (e) Inflows and/or outflows, as applicable;*
- (f) Recipient (e.g. country, region, global, project, programme, activity, other (specify)), as applicable, as available;*
- (g) Status (disbursed, committed);*
- (h) Channel (multilateral, multi-bilateral);*
- (i) Funding source (ODA, OOF, other (specify));*
- (j) Financial instrument (e.g. grant, concessional loan, non-concessional loan, equity, guarantee, insurance, other (specify));*
- (k) The type of support (e.g. adaptation, mitigation or cross-cutting), as available;*
- (l) Sector (e.g. energy, transport, industry, agriculture, forestry, water and sanitation, cross-cutting, other (specify)), as available;*
- (m) Subsector, as available;*

(n) Whether it contributes to capacity-building and/or technology development and transfer objectives, as applicable, as available”.

### **3. Information on finance mobilized through public interventions**

In accordance with the **paragraph 125** of the Annex to Decision 18/CMA:

*“Relevant information, in textual and/or tabular format, for the previous two reporting years without overlapping with the previous reporting periods, on financial support mobilized through public interventions through bilateral, regional and multilateral channels, including the operating entities of the Financial Mechanism and entities of the Technology Mechanism, as applicable and to the extent possible:*

- (a) Year (calendar year, fiscal year);
- (b) Amount (in United States dollars and domestic currency) (the face value and, on a voluntary basis, the grant-equivalent value, if applicable);
- (c) Amount of resources used to mobilize the support (in United States dollars and domestic currency);
- (d) Type of public intervention used (e.g. grant, concessional loan, non-concessional loan, equity, guarantee, insurance, policy intervention, capacity-building, technology development and transfer, technical assistance);
- (e) Recipient (country, region, global, project, programme, activity, other (specify));
- (f) Channel (bilateral, regional, multilateral);
- (g) The type of support (e.g. adaptation, mitigation or cross-cutting);
- (h) Sector (e.g. energy, transport, industry, agriculture, forestry, water and sanitation, cross-cutting, other (specify));
- (i) Subsector;
- (j) Additional information”.

### **D. Information on support for technology development and transfer provided under Article 10 of the Paris Agreement**

In accordance with the **paragraph 126** of the Annex to Decision 18/CMA:

*“Information, in textual format, on support for technology development and transfer provided under Article 10 of the Paris Agreement, including, to the extent possible, qualitative and/or quantitative information on:*

- (a) Strategies employed to support technology development and transfer, including case studies;
- (b) Support provided at different stages of the technology cycle;
- (c) Support for the development and enhancement of endogenous capacities and technologies of developing country Parties;
- (d) Efforts to encourage private sector activities related to technology development and transfer and how such efforts support developing country Parties;
- (e) Efforts to accelerate, encourage and enable innovation, including research, development and deployment efforts, and collaborative approaches to research and development;
- (f) Knowledge generated”.

In accordance with the **paragraph 127** of the Annex to Decision 18/CMA:

*“Quantitative and/or qualitative information in a common tabular format on measures or activities related to support for technology development and transfer implemented or planned since their previous report, including, to the extent possible and as relevant:*

- (a) Title;
- (b) Recipient entity;
- (c) Description and objectives;
- (d) Type of support (mitigation, adaptation or cross-cutting);
- (e) Sector;

- (f) Type of technology;
- (g) Status of measure or activity;
- (h) Whether the activity was undertaken by the public and/or private sector”.

#### **E. Information on capacity-building support provided under Article 11 of the Paris Agreement**

In accordance with the **paragraph 128** of the Annex to Decision 18/CMA:

*“Information, in textual format, on capacity-building support provided under Article 11 of the Paris Agreement, including, to the extent possible, qualitative and/or quantitative information on:*

- (a) Strategies employed to provide capacity-building support, including case studies;*
- (b) How capacity-building support that was provided responds to the existing and emerging capacity-building needs, priorities and gaps identified by developing country Parties in the areas of mitigation, adaptation, and technology development and transfer;*
- (c) Policies that promote capacity-building support;*
- (d) Involvement of stakeholders;*
- (e) How support for capacity-building actions in developing country Parties that was provided promotes the sharing of lessons learned and best practices”.*

In accordance with the **paragraph 129** of the Annex to Decision 18/CMA:

*“Quantitative and/or qualitative information in a common tabular format on measures or activities related to capacity-building support implemented or planned since their previous report, including, to the extent possible and as relevant:*

- (a) Title;*
- (b) Recipient entity;*
- (c) Description and objectives;*
- (d) Type of support (mitigation, adaptation or cross-cutting);*
- (e) Status of measure or activity”.*

#### ***Chapter Information on financial, technology development and transfer and capacity-building support needed and received under Articles 9–11 of the Paris Agreement***

##### **A. National circumstances, institutional arrangements and country-driven strategies**

In accordance with the **paragraph 130** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide information on national circumstances and institutional arrangements relevant to reporting on support needed and received, including:*

- (a) A description of the systems and processes used to identify, track and report support needed and received, including a description of the challenges and limitations;*
- (b) Information on country priorities and strategies and on any aspects of the Party’s NDC under Article 4 of the Paris Agreement that need support”.*

##### **B. Underlying assumptions, definitions and methodologies**

In accordance with the **paragraph 131** of the Annex to Decision 18/CMA:

*“In reporting information on support needed and received, developing country Parties should describe the underlying assumptions, definitions and methodologies used to provide information on support needed and received, including, as applicable, those used to:*

- (a) Convert domestic currency into United States dollars;*
- (b) Estimate the amount of support needed;*
- (c) Determine the reporting year or time frame;*
- (d) Identify support as coming from specific sources;*
- (e) Determine support as committed, received or needed;*
- (f) Identify and report the status of the supported activity (planned, ongoing or completed);*

- (g) Identify and report the channel (bilateral, regional or multilateral);
- (h) Identify and report the type of support (mitigation, adaptation or cross-cutting);
- (i) Identify and report the financial instrument (grant, concessional loan, non-concessional loan, equity, guarantee or other);
- (j) Identify and report sectors and subsectors;
- (k) Report on the use, impact and estimated results of the support needed and received;
- (l) Identify and report support as contributing to technology development and transfer and capacity-building;
- (m) Avoid double counting in reporting information on support needed and received for the implementation of Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building, when reporting such information separately from other information on support needed and received”.

**C. Information on financial support needed by developing country Parties under Article 9 of the Paris Agreement**

In accordance with the **paragraph 132** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide information on financial support needed under Article 9 of the Paris Agreement in textual format, including, to the extent possible and as available and as applicable:*

- (a) Sectors for which the Party wishes to attract international finance, including existing barriers to attracting international finance;*
- (b) Description of how the support will contribute to its NDC and to the long-term goals of the Paris Agreement”.*

In accordance with the **paragraph 133** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in a common tabular format, information on financial support needed, including the following, to the extent possible, and as available and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Programme/project description;*
- (c) Estimated amount (in domestic currency and in United States dollars);*
- (d) Expected time frame;*
- (e) Expected financial instrument (grant, concessional loan, non-concessional loan, equity, guarantee or other);*
- (f) Type of support (mitigation, adaptation or cross-cutting);*
- (g) Sector and subsector;*
- (h) Whether the activity will contribute to technology development and transfer and/or capacity-building, if relevant;*
- (i) Whether the activity is anchored in a national strategy and/or an NDC;*
- (j) Expected use, impact and estimated results”.*

**D. Information on financial support received by developing country Parties under Article 9 of the Paris Agreement**

In accordance with the **paragraph 134** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in a common tabular format, information on financial support received, including, to the extent possible, and as available and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Programme/project description;*
- (c) Channel;*
- (d) Recipient entity;*
- (e) Implementing entity;*
- (f) Amount received (in domestic currency and in United States dollars);*

- (g) *Time frame*;
- (h) *Financial instrument (grant, concessional loan, non-concessional loan, equity, guarantee or other)*;
- (i) *Status (committed or received)*;
- (j) *Sector and subsector*;
- (k) *Type of support (mitigation, adaptation or cross-cutting)*;
- (l) *Whether the activity has contributed to technology development and transfer and/or capacity-building*;
- (m) *Status of activity (planned, ongoing or completed)*;
- (n) *Use, impact and estimated results*".

**E. Information on technology development and transfer support needed by developing country Parties under Article 10 of the Paris Agreement**

In accordance with the **paragraph 135** of the Annex to Decision 18/CMA:

*"Developing country Parties should provide, in textual format, information on technology development and transfer support needed under Article 10 of the Paris Agreement, including on, to the extent possible, and as available and as applicable:*

- (a) Plans, needs and priorities related to technology development and transfer, including those identified in technology needs assessments, where applicable;*
- (b) Technology development and transfer related needs for the enhancement of endogenous capacities and technologies*".

In accordance with the **paragraph 136** of the Annex to Decision 18/CMA:

*"Developing country Parties should provide, in a common tabular format, information on technology development and transfer support needed, including, to the extent possible and as available and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Programme/project description;*
- (c) Type of support (mitigation, adaptation or cross-cutting);*
- (d) Type of technology;*
- (e) Expected time frame;*
- (f) Sector;*
- (g) Expected use, impact and estimated results*".

**F. Information on technology development and transfer support received by developing country Parties under Article 10 of the Paris Agreement**

In accordance with the **paragraph 137** of the Annex to Decision 18/CMA:

*"Developing country Parties should provide, in textual format, information on technology development and transfer support received under Article 10 of the Paris Agreement, including on, to the extent possible, and as available and as applicable:*

- (a) Case studies, including key success and failure stories;*
- (b) How the support contributes to technology development and transfer, endogenous capacities and know-how;*
- (c) The stage of the technology cycle supported, including research and development, demonstration, deployment, diffusion and transfer of technology*".

In accordance with the **paragraph 138** of the Annex to Decision 18/CMA:

*"Developing country Parties should provide, in a common tabular format, information on technology development and transfer support received, including on, to the extent possible, and as available and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Programme/project description;*

- (c) *Type of technology;*
- (d) *Time frame;*
- (e) *Recipient entity;*
- (f) *Implementing entity;*
- (g) *Type of support (mitigation, adaptation or cross-cutting);*
- (h) *Sector;*
- (i) *Status of activity (planned, ongoing or completed);*
- (j) *Use, impact and estimated results”.*

**G. Information on capacity-building support needed by developing country Parties under Article 11 of the Paris Agreement**

In accordance with the **paragraph 139** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in textual format, information on capacity-building support needed under Article 11 of the Paris Agreement, including on, to the extent possible and as available and as applicable:*

- (a) The approach a Party seeks to take to enhance capacity-building support;*
- (b) Country-specific capacity-building needs, constraints and gaps in communicating those needs, and an explanation of how the capacity-building support needed would improve the provision of such information;*
- (c) Processes for enhancing public awareness, public participation and access to information in relation to capacity-building”.*

In accordance with the **paragraph 140** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in a common tabular format, information on capacity-building support needed, including the following, to the extent possible, and as available and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Programme/project description;*
- (c) Expected time frame;*
- (d) Type of support (mitigation, adaptation or cross-cutting);*
- (e) Expected use, impact and estimated results”.*

**H. Information on capacity-building support received by developing country Parties under Article 11 of the Paris Agreement**

In accordance with the **paragraph 141** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in textual format, information on capacity-building support received under Article 11 of the Paris Agreement, including on, to the extent possible, and as available and as applicable:*

- (a) Case studies, including key success and failure stories;*
- (b) How support received has enhanced a Party’s capacity;*
- (c) Capacity-building support received at the national and, where appropriate, subregional and regional level, including priorities, participation and the involvement of stakeholders”.*

In accordance with the **paragraph 142** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in a common tabular format, information on capacity-building support received, including the following, to the extent possible and as available and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Programme/project description;*
- (c) Implementing entity;*
- (d) Recipient entity;*
- (e) Type of support (mitigation, adaptation or cross-cutting);*

- (f) *Time frame;*
- (g) *Status of activity (planned, ongoing or completed);*
- (h) *Use, impact and estimated results”.*

**I. Information on support needed and received by developing country Parties for the implementation of Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building**

In accordance with the **paragraph 143** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide information on support needed and received for implementing Article 13 of the Paris Agreement and transparency-related activities, including on, to the extent possible:*

- (a) Support needed and received for preparing reports pursuant to Article 13;*
- (b) Support needed and received for addressing the areas for improvement identified by the technical expert review teams”.*

In accordance with the **paragraph 144** of the Annex to Decision 18/CMA:

*“Developing country Parties should provide, in a common tabular format, summary information on support needed and received for implementing Article 13 and transparency-related activities, including for transparency-related capacity-building, including, to the extent possible and as applicable:*

- (a) Title (of activity, programme or project);*
- (b) Objectives and description;*
- (c) Recipient entity;*
- (d) Channel;*
- (e) Amount (in domestic currency and in United States dollars);*
- (f) Time frame;*
- (g) Status of activity (planned, ongoing or completed);*
- (h) Use, impact and estimated results”.*

In accordance with the **paragraph 145** of the Annex to Decision 18/CMA:

*“In reporting information on support needed and received for the implementation of Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building, developing country Parties should ensure the avoidance of double counting in reporting this information separately from other information on financial, technology development and capacity-building support that is needed or received”.*



## **Chapter 5. Revision Proposals in Romanian Language of the Governmental Decision (GD) No. 1277 as of 26.12.2018 on the Establishment and Functioning of the National System for Monitoring and Reporting Greenhouse Gas Emissions and other Information Relevant to Climate Change**

The national consultant has assessed the current legal and technical framework for the national MRV system, established through the Governmental Decision (GD) No. 1277 as of 26.12.2018 on the Establishment and Functioning of the National System for Monitoring and Reporting Greenhouse Gas Emissions and other Information Relevant to Climate Change and has propose revisions (in Romanian language) in the text of the GD No. 1277 as of 26.12.2018, to enable its compliance with the ETF requirements of the PA, in accordance with Decision 18/CMA.1 ‘Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement’.

Due to large volume of the document and different language, the proposals have been submitted in Romanian language, as per contract stipulations, it was provided as a separate Annex of the report.

## Chapter 6. National Consultative Workshop Concept Note, Agenda and List of Participants

On 16 December 2019, in the Conference Hall on the 1st floor of the Jolly Alon Hotel, Maria Cibotari Street 37, Chisinau, Republic of Moldova, it has been organized the National Consultative Workshop on Strengthening the National Monitoring, Reporting and Verification System According to the Enhanced Transparency Framework of the Paris Agreement. The national consultative workshop has been attended by 35 participants (see below the Concept Note, Workshop Agenda and the List of Participants).

### EU4CLIMATE PROJECT BACKGROUND

The project EU4Climate helps governments in the six EU Eastern Partnership (EaP) countries Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine to act against climate change. The objective is to support the development and implementation of climate-related policies by the EaP countries which contribute to their low emission and climate resilient development and their commitments to the Paris Agreement on Climate Change. The Initiative builds on important achievements of past cooperation programmes, such as the EU ClimaEast Programme, which supported climate change mitigation and adaptation efforts in EaP countries and was completed in 2017. The scope of the Initiative was defined in cooperation with all partner countries.

Overall, EU4Climate consists of the following components: (i) update of National Determined Contributions (NDCs); (ii) development of long-term (mid-century) low-emission development strategies (LT-LEDS); (iii) strengthening the national emissions monitoring, reporting and verification (MRV) frameworks; (iv) alignment with EU climate and energy acquis; (v) mainstreaming climate in other sector, inter-institutional awareness and sectoral guidelines for implementing the Paris Agreement; (vi) climate investment; (vii) adaptation planning. This workshop focuses on component (iii) – strengthening the national emissions monitoring, reporting and verification (MRV) frameworks.

### SUMMARY OVERVIEW OF THE NATIONAL AND INTERNATIONAL MRV CONTEXT

On behalf of the Government, MoARDE is responsible for implementation of international environment treaties to which the Republic of Moldova is a Part (including the United Nations Framework Convention on Climate Change, signed by the Republic of Moldova on June 12, 1992, ratified by the Parliament on 16 March 1995<sup>56</sup>, as well as the Kyoto Protocol, ratified by the Republic of Moldova on 13 February 2003<sup>57</sup>, the official date of accession being April 22, 2003).

The Republic of Moldova signed an Association Agreement (AA)<sup>58</sup> with the EU on 27 June 2014, which has entered into force in September 2014. The Parliament of Moldova ratified the AA on 2 July 2014 through the Law No. 112 as of 02.07.2014<sup>59</sup>.

In September 2015, at the 21<sup>st</sup> Conference of Parties in Paris, the RM presented its ambitious targets for reducing GHG emissions by 2030, expressed in the Intended National Determined Contribution (INDC). The 21<sup>st</sup> Conference of the Parties approved and submitted for signing and ratification a new international treaty, which came to take over the activities of the Kyoto Protocol and which was named the Paris Agreement of the United Nations Framework Convention on Climate Change.

The Paris Agreement, which was adopted at COP 21 in December 2015 and entered into force in

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<sup>56</sup> Official Gazette No. 23 of 27.04.1995. Parliament Decision No. 404 from 16.03.1995 on ratification of United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=306968>>).

<sup>57</sup> Official Gazette No. 48 of 18.03.2003. Law No. 29 from 13.02.2003 on adherence of the Republic of Moldova to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=313083>>)

<sup>58</sup> Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and the Republic of Moldova, of the other part (OJ L 260, 30.8.2014, p. 4–738) (<[http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0830\(01\)&rid=4](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:22014A0830(01)&rid=4)>).

<sup>59</sup> Official Gazette No. 185-199 of 18.07.2014. Law No. 112 from 02.07.2014 on ratification of the Association Agreement between the Republic of Moldova, on one side, and the European Union and European Community of Atomic Energy and its Member States, on the other side (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=353829>>).

November 2016<sup>60</sup>, aims to strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty, including by holding the increase in the global average temperature well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, increasing the ability to adapt to impacts of climate change, and making finance flows consistent with a low GHG emissions and climate-resilient development<sup>61</sup>.

With entry into force of the Paris Agreement, the global community has entered a new era of climate action with an emphasis on implementation in all countries with transparency. Action from both developed and developing countries is needed.

Each Party is to put forward every five years a Nationally Determined Contribution (NDC) that it intends to achieve. Every five years, a global stocktake will assess the collective progress towards achieving the purpose of the Agreement and its long-term goals. The outcome of the global stocktake is to inform the preparation of future NDCs.

Further, the Agreement includes provisions on finance, technology, and capacity-building to support action by developing countries and the most vulnerable countries. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

Aiming at implementing the National Determined Contribution (NDC), on 24 March 2017 the Low Emissions Development Strategy of the Republic of Moldova until 2030 and the Action Plan for its implementation came into force<sup>62</sup>.

Based on a study of the low carbon economic development constraints, the LEDS provides an integral vision over the change in Moldovan economic development paradigm in the medium and long term run towards a green economic development. The approach set out in the strategy looks to increase financial coverage to promote adequate GHG mitigation policies in the national economy without compromising economic growth.

The overall objective of LEDS is the same as the one set out in the National Determined Contribution for the Paris Agreement.<sup>63</sup> According to this objective, the Republic of Moldova committed to achieve the unconditional target of 64-67% of GHG emissions reduction by 2030 relative to the reference year level (1990). The 64% reduction complies with the energy system development scenario under which the domestic electricity consumption can be fully covered by its own generation sources, while the 67% reduction implies the need for up to 30% electricity imports. The commitment to reduce GHG emissions could potentially increase to 78% provided the availability of low-cost financial resources, technology transfer and multilateral technical cooperation, accessed to the extent global climate change challenge.

The overall target until 2030 is supported by interim targets set for 2020 and 2025, including by sectors. The GHG emission reduction targets set in the LEDS for 2020 are in line with those planned in the 2014-2023 Environmental Strategy and the Action Plan for its Implementation<sup>64</sup>, the second normative act of the Republic of Moldova expressly stating the state policy on combating greenhouse gas emissions.

The LEDS interim targets provide for reducing total GHG emissions by at least 65% (by 2020) and 69% (by 2025), respectively, relative to 1990 levels. These targets can be enhanced with greater financial support through international mitigation mechanisms planned to be developed and approved within UNFCCC.

Further, through the Government Decision No. 549 as of 13.06.2018 on creation, organizing and

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<sup>60</sup> As of January 2019, 184 of the 197 Parties to the Convention Parties have ratified the Paris Agreement (<<https://unfccc.int/process/the-paris-agreement/status-of-ratification>>).

<sup>61</sup> "Paris Agreement". United Nations Treaty Collection. 8 July 2016.

<sup>62</sup> Official Gazette No. 85-91 of 24.03.2017. GD No. 1470 from 30.12.2016 regarding the approval of the Low-Emission Development Strategy of the Republic of Moldova until 2030 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=369528>>).

<sup>63</sup> <<https://www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx>>

<sup>64</sup> Official Gazette No 104-109 of 06.05.2014. GD No. 301 from 24.04.2014 regarding the approval of the Environmental Strategy for 2014-2023 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=352740>>)

functioning of the Environment Agency<sup>65</sup>, the latter has been recently assigned with the following competencies in the field of air protection and climate change:

- implementing the provisions of policy documents and international environmental treaties to which the RM is a part in the field of protection of atmospheric air quality and ozone layer, *GHG emissions reductions and adaptation to climate change*, the elaboration and presentation to the MoARDE of information on their implementation (point 9 (2), let. c);
- participation to the works of the *National Commission for Climate Change* (point 9 (2), let. j) (*the National Commission for Climate Change is to be created in 2019 and will take over the functions and responsibilities of the National Commission for the implementation of the UNFCCC provisions on climate change as well as the provisions and mechanisms of the Kyoto Protocol*);
- ensuring the implementation of the *monitoring, reporting and verification (MRV) system for GHG emissions* (point 9 (2), let. k);
- performing the *process of collecting, centralizing, validating and processing data and required information for the inventories and reports on atmospheric pollutants and GHG emissions* (point 9 (2), let. l);
- providing technical support to MoARDE for the development of *national communications and biennial update reports* according to UNFCCC provisions (point 9 (2), let. o).

On 26 December 2018 it has been established through the Governmental Decision No. 1277, the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change<sup>66</sup>. The Environment Agency has been designated as the national authority responsible for NSMR management and implementation.

Through establishing the NSMR it has been created the legal framework for enforcement the Article 15 of the Law No. 1515 as of 16 June 1993 on Environmental Protection<sup>67</sup>, the implementation of the provisions of the United Nations Framework Convention on Climate Change ratified by Parliament Decision No. 404 as of 16 March 1995<sup>68</sup>, the provisions of the Kyoto Protocol to which the Republic of Moldova joined by Law No. 29 as of 13 February 2003<sup>69</sup>; the provisions of the Association Agreement the Republic of Moldova – European Union (see Chapter 17 “Climate policies”), ratified through the Law No. 112 as of 02.07.2014<sup>70</sup>, and the provisions of the Environment Strategy for 2014-2023 and the Action Plan for its implementation, approved by the Government Decision No. 301 as of 24 April 2014<sup>71</sup>. By creating the NSMR it was also partially transposed the Regulation (EU) No. 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting (MMR) greenhouse gas emissions and for reporting other information relevant to climate change at national and Union level and for repealing Decision No. 280/2004/EC<sup>72</sup>.

The Republic of Moldova signed the Paris Agreement on 21 September 2016 at the 71<sup>st</sup> session of

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<sup>65</sup> Official Gazette No. 210-223 of 22.06.2018. GD No. 549 from 13.06.2018 on creation, organizing and functioning of the Environment Agency (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=375961>>).

<sup>66</sup> Official Gazette No. 38-47 of 08.02.2019. GD No. 1277 from 26.12.2018 on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=379061>>).

<sup>67</sup> Gazette of the Parliament of the Republic of Moldova No. 10 of 01.10.1993. Law No. 1515 from 16.06.1993 on Environmental Protection (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=311604>>).

<sup>68</sup> Official Gazette No. 23 of 27.04.1995. Parliament Decision No. 404 from 16.03.1995 on ratification of United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=306968>>).

<sup>69</sup> Official Gazette No. 48 of 18.03.2003. Law No. 29 from 13.02.2003 on adherence of the Republic of Moldova to the Kyoto Protocol of the United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=313083>>).

<sup>70</sup> Official Gazette No. 185-199 of 18.07.2014. Law No. 112 from 02.07.2014 on ratification of the Association Agreement between the Republic of Moldova, on one side, and the European Union and European Community of Atomic Energy and its Member States, on the other side (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=353829>>).

<sup>71</sup> Official Gazette No. 104-109 of 06.05.2014. Government Decision No. 301 from 24.04.2014 on approval of the Environment Strategy for 2014 – 2023 and the Action Plan for its implementation (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=352740>>).

<sup>72</sup> Official Journal of the European Union L 165/13, 18.6.2013, p. 13–40, <<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0525&from=EN>>.

the UN General Assembly and ratified it on 4 May 2017<sup>73</sup>. In accordance with the Regulation on the mechanism for the conclusion, enforcement and termination of international treaties<sup>74</sup>, this Agreement entered into force on 20 July 2017.

In accordance with the Article 13, paragraph 13 of the Paris Agreement:

*“The Conference of the Parties serving as the meeting of the Parties to this Agreement shall, at its first session, building on experience from the arrangements related to transparency under the Convention, and elaborating on the provisions in this Article, adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support”.*

Respective modalities, procedures and guidelines (MPGs) has been approved at COP 24 in Katowice (2018) through the *Decision 18/CMA.1 ‘Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement’ (FCCC/PA/CMA/2018/3/Add.2).*

## WORKSHOP OBJECTIVE

The workshop will support MoARDE and the Environment Agency in:

- Outlining the legislative gaps against the Coverage Expansion of the Current MRV System to Meet the Requirements of the Enhanced Transparency Framework (ETF) of Paris Agreement;
- Obtaining inputs from stakeholder engagement consultations on enabling the ETF requirements of the Paris Agreement into the national legislation, through the revision of the Governmental Decision No. 1277, the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change<sup>75</sup>.

## WORKSHOP AGENDA

Time	Sessions	Speakers & Comments
<b>8.30 – 09.00</b>	<b>Registration of Participants</b>	
<b>09.00 – 09.30</b>	<b>Welcome remarks by</b> <ul style="list-style-type: none"> <li>• State Secretary, Ministry of the Agriculture, Regional Development and Environment</li> <li>• Representative of the EU Delegation to the Republic of Moldova</li> <li>• Cluster Lead of Climate Change, Energy and Environment, UNDP Moldova</li> </ul>	Mr. Dorin ANDROS  Mr. Christian BALLARO  Ms. Inga PODOROGHIN
<b>09.30 – 10.00</b>	Workshop’s objective  Tour de table	Mr. Marius TARANU  All participants
<b>10.00 – 10.45</b>	Review of the National MRV System under the UNFCCC in the Republic of Moldova and the Institutional Arrangements in Place. Questions and responses.	Dr. Anatol TARITA
<b>10.45 – 11.15</b>	<b>Coffee Break</b>	

<sup>73</sup> Official Gazette No. 162-170 of 26.05.2017. Law No. 78 from 04.05.2017 on ratification of the Paris Agreement of the United Nations Framework Convention on Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=370323>>).

<sup>74</sup> Official Gazette No. 190-196 of 24.07.2015. GD No. 442 from 17.07.2015 regarding the approval of the Regulation on the mechanism for the conclusion, enforcement and termination of international treaties (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=360015>>).

<sup>75</sup> Official Gazette No. 38-47 of 08.02.2019. GD No. 1277 from 26.12.2018 on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change (<<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=379061>>).

<b>11.15 – 12.00</b>	The MRV Legal Framework in Place - Law No. 78 as of 4 May 2017 on ratification of the Paris Agreement of the United Nations Framework Convention on Climate Change and Governmental Decision No. 1277 as of 26 December 2018, on establishing and functioning of the National System for Monitoring and Reporting (NSMR) Greenhouse Gas Emissions and Other Information Relevant to Climate Change. Questions and responses.	Dr. Natalia ZAMFIR
<b>12.00 – 12.45</b>	Assessment of the Needed Coverage Expansion of the Current MRV System to Meet the Requirements of the ETF of Paris Agreement, following the stipulations of the Decision 1/CP.21 ‘Adoption of the Paris Agreement’ and Decision 18/CMA.1 ‘MPGs for the transparency framework for action and support referred to in Article 13 of the Paris Agreement’. Questions and responses.	Dr. Anatol TARITA Dr. Natalia ZAMFIR
<b>12.45 – 13.00</b>	Conclusions of the national workshop.	All participants Dr. Anatol TARITA Dr. Natalia ZAMFIR
<b>13.00 – 14.00</b>	<b>Lunch</b>	All participants

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35. Veronica LOPOTENCO – national climate expert (freelancer) ([lopotenco.veronica@gmail.com](mailto:lopotenco.veronica@gmail.com)).

Following the stakeholder engagement consultations, organized on 16 December 2019, there were collected their views and inputs, which have been incorporated together with the legal consultant into the Governmental Decision (GD) No. 1277 as of 26.12.2018 on the Establishment and Functioning of the National System for Monitoring and Reporting GHG Emissions and other

Information Relevant to Climate Change. It is to be noted also that it has been developed a draft Governmental Decisions on modification of the Governmental Decision (GD) No. 1277 as of 26.12.2018 on the Establishment and Functioning of the National System for Monitoring and Reporting GHG Emissions and other Information Relevant to Climate Change, as well as an Informative Note on the modification of the GD No. 1277 (all 3 documents are provided as annexes in the Final report of the Legal Consultant).