

United Nations Development Programme

**PROJECT DOCUMENT****Georgia****Title of the Project:** Air Quality for Better Citizen's Health**Project Number:** 01001653 **Award Numbers:** 1214291 and 1214293**Implementing Partner:** Ministry of Environment Protection and Agriculture of Georgia (MEPA)**Modality:** NIM with full Country Office support**Estimated Start Date:** 8 December 2023**End Date:** 7 December 2027**E-LPAC Meeting date:** 26 December 2023**Brief Description**

In order to address the key AQ challenges in Georgia, three UN agencies - UNDP, WHO and UNECE in a partnership with Umweltbundesamt - Environment Agency Austria (UBA) will pull together their expertise to carry out the project, which aims at **improving air quality to better protect the health of citizens.**

The Project will enhance the national capacity to monitor and analyse air quality and regulate industrial emissions through:

- improving AQ monitoring network in existing AQ management zones including Chiatura, suffering from elevated levels of "toxic" dust containing manganese, due to open pit mining operations
- improving modelling and forecasting capacities of National Environmental Agency (NEA) of the Ministry of Environmental Protection and Agriculture (MEPA) as well as the quality/validity of AQ measurements
- Improving AQ health modelling and assessment knowledge and capacities of responsible national agencies – NEA and National Centre for Disease Control and Public Health (NCDC)
- Supporting GoG in establishing and commissioning a national reference laboratory, and building national capacities in operations and maintenance of analytical and inter-calibration equipment
- Improving knowledge and capacities of decision-makers and other relevant stakeholders in AQ health aspects, including, AQ health risk communications
- Building national capacities in adopting and applying gender equality and social inclusion framework and a toolkit, including checklist in AQ management and environmental health assessments
- Elaborating and supporting the adoption of technical regulations on BAT
- Conducting a study on BAT incentives, including concrete proposals and their promotion
- Implementing a pilot project on BAT on a private sector cost-sharing basis
- And, building knowledge and capacity of MEPA and industry representatives on regulation of industrial emissions/BAT

The project will be implemented through a partnership of UNDP with UNECE, WHO and UBA. The project will be governed by a Project Board that will be co-chaired by MEPA and UNDP. All Project Partners will be presented in the PB together with key Government stakeholders, including the MEPA, the Ministry of Economy and Sustainable Development (MoESD) and NCDC. UNDP will engage the National Environmental Agency (NEA) under MEPA in implementing activities related to the improvement of AQ monitoring, modelling and forecasting, and data quality management.

**Contributing Outcome (UNSDCF, CPD, RPD):** UNSDCF 2021-2025

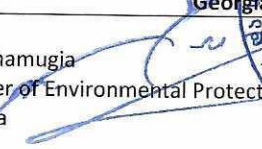
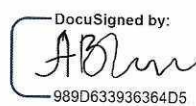
Outcome 5: By 2025, all people, without discrimination, enjoy enhanced resilience through improved environmental governance, climate action and sustainable management, and the use of the natural resource(s) in Georgia;

**CPD 2021-2025 Output 2.1** Environmental governance and institutional capacity enhanced to enable rational, equitable, and sustainable use of natural/land resources, to ensure the conservation of ecosystems, use of innovative and climate-friendly technologies for an inclusive green economy, energy efficiency, and clean energy production, and make communities more resilient to environmental shocks;

**Strategic Plan 2022-25 Output 1.1:** The 2030 Agenda, Paris Agreement and other inter-governmentally agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions

Gender marker: **GEN 2:** Gender Equality as a significant objective.

<b>Total resources required:</b>	<b>4,482,236.84 USD</b>	
<b>Total resources allocated:</b>	<b>UNDP TRAC:</b>	<b>96,271.93 USD</b> (Equivalent of EUR 87,800 per UNORE Exchange rate for Dec 2023 - 0.912)
	<b>EU:</b>	<b>4,385,964.91 USD</b> (Equivalent of EUR 4,000,000 per UNORE Exchange rate for Dec 2023 - 0.912)
<b>Unfunded:</b>	<b>0USD</b>	

<b>Agreed by:</b> <b>The Ministry of Environment Protection and Agriculture of Georgia</b>	<b>Agreed by:</b> <b>United Nations Development Programme</b>
Otar Shamugja Minister of Environmental Protection and Agriculture of Georgia	Anna Chernyshova Deputy Resident Representative
	
Date: 22-Jan-2024	Date: 26-Dec-2023

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LIST OF ACRONYMS:

AAD	AMBIENT AIR DIVISION
AAQD	AMBIENT AIR QUALITY DIRECTIVES
AQ	AIR QUALITY
AQG	AIR QUALITY GUIDELINES
AQI	AIR QUALITY INDEX
BAT	BEST AVAILABLE TECHNIQUES
CBA	COST BENEFIT ANALYSIS
CO	COUNTRY OFFICE
EE	ENVIROMENT AND ENERGY
EIB	EUROPEAN INVESTMENT BANK
ELV	EMISSION LIMIT VALUES
EU	EUROPEAN UNION
EUD	EUROPEAN UNION DELEGATION
GCF	GREEN CLIMATE FUND
GEF	GLOBAL ENVIRONMENTAL FACILITY
GWP	GLOBAL WARMING POTENTIAL
HACT	HARMONIZED APPROACH TO CASH TRANSFER
IPPC	INTEGRATED POLLUTION PREVENTION AND CONTROL
LEPL	LEGAL ENTITIY OF PUBLIC LAW
LTLEDS	LONG-TERM LOW EMISSIONS DEVELOPMENT STRATEGIES
MEPA	MINISTRY OF ENVIRONMENT PROTECTION AND AGRICULTURE OF GEORGIA
MIA	MINISTRY OF INTERNAL AFFAIRS OF GEORGIA
NCDC	NATIONAL CENTER FOR DISEASE CONTROL
NDC	NATIONALLY DETERMINED CONTRIBUTIONS
NEA,	NATIONAL ENVIROMENTAL AGENCY
NEAP	NATIONAL ENVIRONMENTAL ACTION PROGRAMME
NPD	NATIONAL PROJECT DIRECTOR
NRL	NATIONAL REFERENCE LABORATORY
PB	PROJECT BOARD
PMU	PROJECT MANAGEMENT UNIT
PSC	PROJECT STEERING COMMITTEE
UBA	UMWELTBUNDESAMT - ENVIRONMENT AGENCY AUSTRIA
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
UNECE	UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE
UNEP	UNITED NATIONS ENVIRONMENT PROGRAMME
WHO	WORLD HEALTH ORGANIZATION

## I. DEVELOPMENT CHALLENGE

### 1.1 Situation Analysis

#### 1.1.1 Existing Air Quality Challenges and their Immediate and Underlying Causes

For years Georgia has been facing significant ambient air pollution problems especially, in densely populated Tbilisi agglomeration, several other larger urban areas (e.g. Kutaisi, Batumi, etc.) and industrial zones (e.g. in Zestaponi, with elevated levels of fine particulate matter containing manganese). Immediate and underlying causes/pressures for poor air quality are as follow<sup>1</sup>:

- elevated levels of exhaust emissions of Nitrogen Oxides (NOx), fine Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>), Carbon Monoxide (CO) and Volatile Organic Compounds (VOCs), attributed to permanently increasing number of vehicles and outdated fleet, poorly planned and regulated roads and traffic, underdeveloped public transportation, and poor petrol and diesel fuel quality;
- high amounts of industrial emissions especially, from large combustion plants, steel and iron manufacturing, chemical and cement industries due to the presence of outdated pollution abatement technologies, practically no application of Best Available Techniques (BAT) and weak law enforcement<sup>2</sup>;
- household heating and cooking appliances using firewood.
- rapidly growing construction sector in urban areas and touristic spots contributing significant portion to particulate matter emissions.

Negative anthropogenic (man-made) pressures are frequently magnified by summer unfavourable meteorological conditions, such as high temperatures and stagnant conditions for prolonged periods, causing temperature inversions and elevated ambient concentration of ground-level ozone (O<sub>3</sub>) and other pollutants that ultimately lead to summer smog. More than that, limited green spaces and cooling islands as well as poor urban mobility particularly, in Tbilisi create urban heat effect contributing negatively to Ambient AQ.

Practically everywhere where AQ is measured, ambient concentrations of fine particulate matters and nitrogen dioxides (NO<sub>2</sub>) systematically exceed AQ limit values (LVs). For Rustavi the critical problem is regular exceedance of LV for PM<sub>10</sub> (58%, 2019) and for PM<sub>2.5</sub> (32%, 2020) and for Kutaisi – regular exceedance of LV for PM<sub>10</sub> (23%, 2019). For Tbilisi the key problem is exceedances of NO<sub>2</sub> LV at half of the observation (including passive sampling) points by more than 50% (2020). In the city, concentrations of PM<sub>10</sub> are higher than LVs during summer months, with 90% LV exceedances recorded for the month of June of the current year. Moreover, in 10% of cases (8-10 June) of the same month ambient air quality – expressed as Air Quality Index (AQI) – was extremely poor in Tbilisi<sup>3</sup>. Excessive concentrations of NO<sub>2</sub> are also reported for Kutaisi, Batumi, Rustavi, Zestaponi, Chiatura, Marneuli, Bolnisi and Akhaltsikhe. Manganese dioxide is the most problematic pollutant for Zestaponi, where ferro-alloy plant is located using local manganese in the steel production<sup>4</sup>.

**Environmental health.** Poor ambient AQ has short-term acute and longer-term chronic impacts on population exposed, especially on sensitive/vulnerable to air pollution groups as such children, elderly, pregnant women, people suffering from high blood pressure, other cardiovascular diseases and asthma. Longer-term exposure may lead to the development of various cancers.

There is a strong scientific evidence that elevated levels of air pollutants and longer-term exposure of people to these risk factors may lead to development of Chronic Obstructive Pulmonary Disease (COPD). COPD is a group of diseases

<sup>1</sup> საქართველოს გარემოს დაცვის მოქმედებათა მეოთხე ეროვნული პროგრამა (NEAP 4) 2022-2026 <https://www.matsne.gov.ge/ka/document/view/5563250?publication=0>

<sup>2</sup> An Informative Inventory Report of Georgia (1990-2019) clearly manifests that gross polluting sectors for criteria pollutants are combustion in transport sector, manufacturing industries and construction, combustion in manufacturing (Iron and steel) and cement industries and, public electricity and heat production. Concerning priority heavy metals, the main source of lead (Pb) emissions is iron and steel production, both combustion and industry sectors. Energy sector, mainly combustion in cement and iron and steel production, is also a key source of mercury emissions. [https://air.gov.ge/media/pages/Informative\\_Inventory\\_Report\\_Georgia\\_1990-2019.pdf](https://air.gov.ge/media/pages/Informative_Inventory_Report_Georgia_1990-2019.pdf)

<sup>3</sup> [https://air.gov.ge/en/reports\\_page?station=TSRT%2CRST18&report\\_type=monthly&date\\_from=2023-06](https://air.gov.ge/en/reports_page?station=TSRT%2CRST18&report_type=monthly&date_from=2023-06)

<sup>4</sup> საქართველოს გარემოს დაცვის მოქმედებათა მეოთხე ეროვნული პროგრამა (NEAP-4) 2022-2026. <https://www.matsne.gov.ge/ka/document/view/5563250?publication=0>

that cause airflow blockage and breathing-related problems. It includes: i) emphysema<sup>5</sup>; ii) chronic bronchitis<sup>6</sup>; iii) refractory (non-reversible) asthma<sup>7</sup>; and iv) some forms of chronic bronchiectasis<sup>8</sup>. Furthermore, epidemiological studies indicate that there is a strong correlation between air pollution and Upper Respiratory Tract Infections (URTIs), such as pneumonia and influenza, characterised by irritation and swelling of the upper airways. A pertinent risk factor of URTIs is the exposure to major ambient air pollutants, such as carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), particulate matter (PM) and ozone (O<sub>3</sub>). Short and long-term exposures to these air pollutants have shown to have detrimental immunological effects, and can exacerbate several respiratory conditions, including URTIs. Most importantly, findings of recent studies demonstrate that both short-term and long-term exposure to air pollution especially PM<sub>2.5</sub> and nitrogen dioxide (NO<sub>2</sub>) contribute significantly to higher rates of COVID-19 infections and mortalities. A significant correlation has been found between air pollution and COVID-19 infections and mortality in some countries in the world. The available data also indicate that exposure to air pollution may influence COVID-19 transmission. Moreover, exposure to air pollution may increase vulnerability and have harmful effects on the prognosis of patients affected by COVID-19 infections<sup>9</sup>.

In Georgia, there is practically no environmental health statistics to assess health status caused by poor ambient AQ. Only global assessments are available. Global HRA (health risk assessment) reports by WHO and the Institute for Health Metrics and Evaluation (IHME) – a global health research centre at the University of Washington – indicate that air pollution is a significant factor for mortality and morbidity in the country. According to WHO 2018 global health data, Georgia was on the 70th place with regards to air pollution related mortality. Likewise, 2019 Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) of the IHME, providing the most recent assessment of deaths, years of life lost because of premature mortality, years of life lived with disability, and disability-adjusted life-years, attributable to metabolic, environmental, occupational, and behavioural risk factors shows that air pollution is the 6<sup>th</sup> factor amongst 10 most acute risk factors for driving the most death and disability combined in Georgia. Among top diseases causing high mortality and disability are those known to be linked to air pollution. These are: Ischemic heart disease (1st rank), stroke (1st rank), hypertensive heart disease (4th rank), Lung cancer (6th rank).<sup>10</sup>

UNEP's Pollution Action Note for 2022, published on its web-site, referring to GBD study mentioned above, estimates that in 2019 each person's annual mean exposure to PM<sub>2.5</sub> was 18 µg/m<sup>3</sup> (3.6 times the WHO's 2021 air quality guideline level of 5 µg/m<sup>3</sup>). This translates into estimated value of 85 deaths per 100,000 people and total of 3,112 deaths in the country. Fine particle pollution is an important factor in deaths from type 2 diabetes (12% of death attributable to exposure to PM<sub>2.5</sub>), chronic obstructive pulmonary disease (12%), tracheal, bronchus and lung cancer (12%), stroke (11%), ischemic heart disease (10%), lower respiratory infections (9%) and neonatal disorders (5%).<sup>11</sup>

The most recent World Air Quality Report (2022), prepared by AirQ (Swiss-based Technology Company) in close collaboration with the United Nations Environment Programme (UNEP) and the United Nations Human Settlements Programme (UN-HABITAT) contains an assessment of PM<sub>2.5</sub> annual average concentrations by countries, and their ranking (including colour coding) in comparison with WHO annual air quality guideline levels and interim targets for PM<sub>2.5</sub><sup>12</sup>. In this assessment, Georgia ranks at 61 out of 116 countries, with 17 µg/m<sup>3</sup> average annual PM<sub>2.5</sub> concentration,

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<sup>5</sup> a gradual damage of lung tissue, reduction of lung surface area, trapping of air in a damaged tissue and preventing oxygen movement in a blood stream as well as overflow of lungs and breathing difficulties

<sup>6</sup> inflammation of airways in the lungs (bronchi), causing coughing spells, bringing up mucus, wheezing, chest pain and breath shortness, leading to long-term breathing difficulties

<sup>7</sup> A type of chronic asthma not responding to usual asthma medications

<sup>8</sup> A chronic condition in which the walls of the bronchi are thickened from inflammation and infection

<sup>9</sup> <https://www.frontiersin.org/articles/10.3389/fpubh.2020.580057/full>

<sup>10</sup> GBD 2019, <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2820%2930752-2>

<sup>11</sup> <https://www.unep.org/interactive/air-pollution-note/>

<sup>12</sup> The WHO annual average guideline aims to quantify risks for long-term, chronic exposure. Sustained exposure to PM<sub>2.5</sub> concentrations above the annual average guideline level result in a chronic impact on individuals' respiratory and circulatory systems leading to long-term complications such as heart disease and decreased lung function. Apart from the explicit health effects from chronic exposure, long-lasting poor air quality conditions can have detrimental consequences related to mental health of affected populations. Concerning target values, they have been set to support the planning of incremental milestones toward cleaner air, particularly for cities, regions and countries that are struggling with high air pollution levels.



which is 3.4 times the WHO's air quality level and meets WHO interim target 2 (25 µg/m<sup>3</sup>). Tbilisi is ranked at 57, with 16.3 µg/m<sup>3</sup> average annual PM<sub>2.5</sub> concentration, which is slightly above the WHO interim target 3 (15 µg/m<sup>3</sup>).

Reforms, achievements. Since its independence and particularly – since signing EU-Georgia Association Agreement (EUAA) – Georgia has carried out a number of legal-regulatory, policy and institutional reforms in the area of ambient AQ management and, improved its ambient AQ monitoring infrastructure. More specifically, the country:

- became a party to LRTAP Convention<sup>13</sup> in 1999 and its EMEP Protocol<sup>14</sup> in 2013. Since then it has established emission inventory and reporting systems in line with the requirements of the Convention; Georgia is now working on the ratification of the Gothenburg Protocol to the CLRTAP Convention;
- made relevant amendments to the Law on Atmospheric Air Protection (22 May 2020)<sup>15</sup> and subsidiary legislation<sup>16</sup> (27 July, 2018) to transpose relevant articles of EU CAFE Directive (AQD) and Directive 2004/107/EU (hereafter Ambient Air Quality Directives (AAQDs)) on AQ planning, classification of zones and agglomerations, AQ LVs, AQ monitoring and assessment, etc.;
- On June 29, 2023 adopted the law on Industrial Emissions as per EU Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on Industrial Emissions (Integrated Pollution Prevention and Control);
- adopted EURO-5 fuel quality standards for petrol and diesel fuel (effective as of 1 January 2023 for diesel fuel) as well as EURO-5/V vehicle emission standards (effective as of 1 January 2024 for M1 and M2 category vehicles<sup>17</sup>, and effective as of 1 January 2025 for M3, N1, N2 category vehicles<sup>18</sup>);
- assessed national capacity of existing paint production and distribution system to fulfil new requirements on VOCs based on EU Directive 2004/42/EC, conducted a regulatory impact assessment for the transposition of the mentioned EU directive, discussed issues with product manufacturers and importers and prepared a draft regulation on the use of organic solvents in paints to reduce emissions of Volatile Organic Compounds (VOCs);
- conducted an initial air quality assessments, identified needs for monitoring network and based on this has developed and adopted AQ monitoring system development plan (a road map) in 2021; The same year divided Georgia into agglomerations and zones;
- In 2020 has introduced mandatory vehicle inspection system;
- Since 2016 has purchased and installed new automated background AQ monitoring stations in Tbilisi (including those for PM<sub>10</sub> and PM<sub>2.5</sub>) and a number of cities and zones and;
- has created air-quality data-base and a portal ([www.air.gov.ge](http://www.air.gov.ge)) and emission sources and emissions georeferenced database.
- In 2022 as means for cross-agency coordination, the GoG has established an inter-agency commission to discuss and agree upon such multi-sectoral issues, as fuel quality, vehicle emissions regulations, transport policy, etc.
- At the municipal level, Tbilisi and Batumi developed Clean City Action Plans and Sustainable Urban Mobility/Sustainable Urban Transport Strategies<sup>19</sup> and have started their implementation.

AQ monitoring status. At present, there are 9 automatic AQ monitoring stations across the country that are fully operational. 6 stations are located in Tbilisi, including 2 mobile stations 1 in Rustavi, 1 in Batumi and 1 in Kutaisi. All criteria pollutants covered by CAFE Directive<sup>20</sup> and meteorological parameters are measured. Since the end of 2021

<sup>13</sup> UNECE Convention on long-range transboundary air pollution (CLRTAP)

<sup>14</sup> 1984 Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP)

<sup>15</sup> <https://matsne.gov.ge/en/document/download/16210/11/en/pdf>

<sup>16</sup> The Government Resolution №383 on approval of European ambient air quality standards (EU directives 2008/50/EC, 2004/107/EC)

<sup>17</sup> A) M category vehicle – vehicles with 4 wheels, designed for transporting passengers and their luggage: M1 - no more than 8 seats (except the driver's seat); M2 - with more than 8 seats (except the driver's seat) and no more than 5 tons in total weight; M3 - with more than 8 seats (except the driver's seat) and more than 5 tons in total weight; b) N category vehicle: Vehicles with at least 4 wheels, intended for cargo transportation: N1 – no more than 3.5 tons in full weight; N2 – between 3.5 tons and 12 tons in full weight; N2 – more than 12 tons in full weight.

<sup>18</sup> Resolution No. 238 of June 28, 2023 of the Government of Georgia Regarding the approval of the "Technical Regulation - on the implementation of the maximum allowable limits of emission from various types of transport and other vehicles polluting the atmospheric air with harmful substances in the territory of Georgia, provided for by the European Union legislation. <https://www.matsne.gov.ge/ka/document/view/5845990?publication=0>

<sup>19</sup> i) Tbilisi Green City Action Plan, 2017 – 2030. <https://www.tbilisi.gov.ge/page/green-city?lang=en>; ii) Tbilisi Sustainable Transport Strategy, 2015-2030,

[http://mdf.org.ge/storage/assets/file/documents%202016/murtazi/Strategic%20Paper%20Report%20PDF%20Geo\(18\\_03\\_2016\)/Strategic%20Paper%20Report%20final%20ENG.pdf](http://mdf.org.ge/storage/assets/file/documents%202016/murtazi/Strategic%20Paper%20Report%20PDF%20Geo(18_03_2016)/Strategic%20Paper%20Report%20final%20ENG.pdf); iii) Batumi Green Cities Action Plan, <https://ebrdgreencities.com/assets/Uploads/PDF/Batumi-Green-City-Action-Plan-English-V5.pdf>; iii) Integrated Sustainable Urban Mobility Plan for Batumi, 2017-2030, <https://www.undp.org/georgia/publications/sustainable-urban-mobility-plan-batumi-city-2017#:~:text=It%20aims%20to%20create%20an,gas%20emissions%20and%20energy%20consumption>.

<sup>20</sup> PM<sub>10</sub>, PM<sub>2.5</sub>, CO, SO<sub>2</sub>, NO<sub>2</sub>, O<sub>3</sub>

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following heavy metals: Cd (Cadmium), Pb (Lead), Ni (Nickel), As (Arsenic) as well as Benzo[a]pyrene have been measured at 7 stations, and the Central Laboratory of NEA has received an international accreditation for these components. Continuous data flow from automatic stations ensures storage and further use of data in NEA's central repository linked to the web-portal. A passive sampling is carried out 4 times a year in around 30 municipalities.

NEA has recently introduced up-to-date software for validating air quality data and kicked off the development of a new system for air quality modelling (regional model FARM). Initial validation of primary data at some stations are being performed. Furthermore, NEA has developed data verification and reporting protocols, has compiled software manuals and has trained technicians in air modelling and reporting. It is noteworthy to mention that NEA runs dense hydrometeorological network of ground stations and there are couple of radars in the country, which may provide necessary input meteorological data for AQ modelling.

As for non-automatic stations, in total there is 1 station 1 in Zestaponi; the latter measures MnO<sub>2</sub>, specific to existing ferro-alloy plant is measured. A delivery period is monthly, data are entered to the database and shown on [www.air.gov.ge](http://www.air.gov.ge). After data input, reports are generated automatically with indicator of validation. Annual reports are included in yearbooks of environmental quality published by NEA. The assessment of air quality is carried out by the harmonized system with the EU atmospheric Air Quality Indices (AQI).

Ongoing AQ activities and near future plans. At present, the Ministry of Environmental Protection and Agriculture (MEPA) through i) Ambient Air Division (AAD) under the Department of Environmental and Climate Change, in charge of air protection policies, ii) Environmental Assessment Department (EAD) under the NEA, in charge of environmental permitting and iii) Environmental Supervision Department, in charge of environmental compliance supervision and control – with a support of EU Initiative Support to Environmental Protection and Fight Against Climate Change in Georgia (Hereafter EPFACC project) – is working on:

1. translation of BAT conclusions on Large Combustion Plants, Waste Incineration and Co-incineration Plants, Cement, Lime and Manganese Oxide, Iron and Steel, and Intensive Rearing of Poultry or Pigs. This task has been already accomplished;
2. technology needs assessment of BAT implementation in the following industries:
  - Cement production - "Heidelbergcement Georgia" LLC;
  - Waste Co-incineration - "Heidelbergcement Georgia" LLC;
  - Poultry sector - "GPP - Georgian Poultry Production" LLC;
  - Iron and Steel Production - "Geosteel" LLC;
  - Sulfuric acid production - "MN Chemical" LLC.
3. development and adoption of AQ plans for Tbilisi and Batumi in line of requirements of EU CAFE directive. Tbilisi AQ plan will be adopted by the end of 2023 and Batumi AQ plan – during the first half of 2024. The Central Zone AQ plan was developed with Sida's assistance and approved by # 1431, 7 July 2023 GoG resolution.
4. regulation and control of VOC emissions resulting from the storage of petrol and its distribution from terminals to service stations which might reach to the replacement of outdated engine as per Directive 1994/63/EC
5. cost assessment for establishing AQ national reference laboratory at NEA and development of national QA/QC programme (e.g. AQ/QC programmes c.f. AQUILA network)

AAD is preparing the basis for ratification of the latest three protocols as amended in particular the Gothenburg Protocol of the Air Convention; MEPA together with Italian consultants works on establishing LIMS for various specialized agencies including NEA.

In the area of environmental health, National Centre for Disease Control (NCDC) has started application of WHO/Europe AIRQ+, by collecting relevant data for the model and conducting test assessments. Ongoing EU Environment and CC and EU Twinning projects inter alia aim at capacity-building of relevant agencies (NCDC and NEA) in the area of environmental health, through carrying out relevant assessments for pilot areas of the project.

It is noteworthy to mention that recently civic activism in AQ monitoring, assessment, advocacy and awareness has increased significantly. Currently, there is a Georgia-based NGO – "Green Pole" associated with the civic movement "My City Kills Me". The movement aims to draw attention to the issue of heavy air pollution in Georgian cities, especially Tbilisi, and the health consequences of this condition.

Since January 2023, the given NGO in cooperation with Czech non-governmental organization "Arnika" and the "TRANSITION" programme of the Czech Ministry of Foreign Affairs, has been working on creating the first civic air

quality monitoring network in Georgia in the following cities: Tbilisi, Kutaisi, Rustavi, Chiatura, Kaspi and Oni. The initial focus is on monitoring of key pollutants, including PM<sub>2.5</sub>. The goal of the project “Transition” is to promote access to air quality information and to register the polluted municipalities and settlements of Georgia based on the information obtained through the monitoring network. By the end of the year, total number of AQ civil monitoring stations will increase to 30. AirGE is the name of the first civil AQ monitoring station and also the name of the entire citizens’ air pollution monitoring network. The first prototype produced by volunteers in Tbilisi, Georgia, on the weekend of 20-21 May 2023. Parts of three dozen other stations have been modelled on it.<sup>21</sup>

### 1.1.2 Institutional Setting

In Georgia MEPA through AAD represents the key policy-making body in the area of AQ management. There are also other structural units and specialized agencies of MEPA that are engaged in the implementation of the laws and policies in the given field.

The key legislative body is the Parliament of Georgia which adopts laws and amendments to the laws as well initiates new bills and discusses them with relevant stakeholders through the Sectoral Committee (e.g. Environmental Protection and Natural Resources, Economic and Transport Committees, etc.) and Parliamentary Hearing. Sectoral committees also serve as parliamentary supervisory bodies through Committee Hearings and Thematic Inquiries.

In more details, institutional setting in AQ management is as follows:

#### 1. MEPA:

- AAD/MEPA – development and coordination of implementation of AQ policies and regulations, emission inventories, registries, reporting to the Air Convention, coordination of development of AQ plans;
- Environmental Assessment Department under NEA/MEPA – environmental permitting (IPPC permitting once the Law on Industrial Emissions is entered into force), keeping permit registries;
- Department of Environmental Supervision and its Industrial Emissions unit – supervision and control/law enforcement of permitted industries, vehicle emissions;
- Department of Environmental Pollution Monitoring and its central and regional laboratories under NEA – AQ monitoring, including continuous and intermittent measurements, passive measurements, modelling, AQ database management and reporting, development of AQ plans;
- Environmental Information and Education Centre (EIEC) – environmental information management, awareness and education.

#### 2. Ministry of Economy and Sustainable Development (MoESD):

- Economic Policy Department; Service Agency – tax policies;
- Ground Transport Administration – vehicles related policies, regulation; tax policies;

#### 3. Ministry of Finance (MoF): Customs Department under Revenue Service of Georgia – customs checks and clearances;

#### 4. Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia (MoIDPLHSA): National Centre for Disease Control and Public Health (NCDC) – public and occupational health policies, environmental health assessments and information;

#### 5. Ministry of Internal Affairs (MIA): Patrol Police – control/law enforcement of vehicle emissions;

#### 6. Local self-governments (LSGs): development and implementation of transport and traffic (including sustainable mobility/transport) and green cities policies;

#### 7. Industries, including large combustion plants: EIAs, acquiring environmental permits, meeting ELVs (emission limit values) and implementing BATs once they are introduced;

#### 8. Vehicle testing centres and accreditation centres: vehicles annual mandatory testing for road worthiness, including exhaust emissions;

#### 9. Vehicle importers: vehicle imports;

#### 10. Environmental and civic activism NGOs (CENN, RECC, Green Pole, etc): AQ civil monitoring, assessment, awareness raising and advocacy

#### 11. Media: information distribution and public discussions

<sup>21</sup> <https://greenpole.org/en/project/proeqti-airge-haeris-khariskhis-samoqalaqo-monitoringi-saqarthveloshi/>



### 1.1.3 Past and On-going donor efforts

In order to address current AQ management needs there are a number of donor-funded ongoing and completed projects, including:

1. **EU Project - Support to Environmental Protection and Fight against Climate Change (EPFACC)** – NIRAS, 2022-2024 (2 years) - developing Tbilisi and Batumi AQ plans, based on emission inventory and appointment of pollution sources, GIS-based gridded emission distribution modelling, AQ assessment and stakeholder consultations, conducting environmental health assessments, improving urban mobility and green concept, conducting CBA for establishing the reference laboratory, improving AQ monitoring and QA/QC procedures, further developing fugitive VOC emission regulation, fuel quality standards and law enforcement for fuel quality and vehicle engines, assisting MEPA in preparation of subsidiary legislation in line with the Law on Industrial Emissions based on EU IED, i.e. translating key BAT conclusions, technology needs assessments (see 1.1.2), etc;
2. **Sida Project - Save the Nature, 2021-2024, direct recipient LEPL NEA** – purchase and installation of 8 new automated air quality monitoring stations for Tbilisi, Rustavi, Telavi, Akhaltsikhe, Batumi, Kutaisi, Zugdidi, Mestia and 1 mobile station, AQ capacity building and development of AQ plan for Central Zone (Rustavi inclusive);
3. **EU Twinning Project - Support in implementation of Health Impact Assessment Practice in Georgia** – creating capacities in Georgia for environmental health assessment by conducting pilot assessments in 4 cities of Georgia (Tbilisi, Rustavi, Batumi, Kutaisi) using AirQ+;
4. **UNDP/Sida Governance Reform Fund's (GRF), 2019-2021** – a road map for AQ monitoring, improving gravimetric analysis capacities, a software for validating air quality data and calibration and application of a new system for air quality modelling (Italian model FARM);
5. **UNDP/GEF Project - Green Cities: Integrated Sustainable Transport for the City of Batumi and the Adjara Region, 2015-2020** – sustainable urban transport practices in Batumi and Adjara region, sustainable urban mobility plans for Batumi and Adjara, specific feasibility studies and functional plans for low carbon transport in Batumi, sustainable transport investments in Batumi, sustainable transport plans for other corridors of Batumi and the rest of municipalities in Adjara;
6. **UNDP/GCF/SDC/Sida UNDP/GCF/SDC/Sida programme: Reducing the Risk of Climate-Driven Disasters in Georgia, 2018-2025** and its two component projects: **UNDP/GCF project: Scaling-up Multi-Hazard Early Warning and the Use of Climate Information in Georgia** and **UNDP/SDC project: Strengthening the Climate Adaptation Capacities in Georgia** – among other things, improvement of meteorological monitoring and forecasting;
7. **UNEP-Air Project - Sustainable Low Emissions Transport to contribute to finding solutions to current air quality challenges; CENN, 2019-2021** – draft technical regulation (by law) to introduce EU emission standards (EURO 4+) for road transport and Cost Benefit Analysis (CBA) on introducing low emission transport policies and standards in Georgia;
8. **UNECE-led Georgia Road Safety Performance Review (RSPR), 2018;**
9. **UNECE CLRTAP capacity-building programme (2014-2023)** - several in-country workshops held to support emission inventory development; sub-regional workshops on modelling emission projection scenarios (GAINS), transport emissions (COPERT) and BATs; development of national action plan for accession to and implementation of the Conventions' protocols; national clean air dialogue to follow-up on national action plan;
10. **EU Air Governance Programme, CENN, NGO, 2013-2014** - initial ambient AQ assessment for Georgia and Tbilisi, developed recommendations on classification of Georgia into zones and agglomerations, purchased, installed and supported running of ADMS-Urban air quality model and built NEA's capacity in running the model.

## 1.2 Development challenges and the need for additional assistance (Project rationale)

Notwithstanding the current efforts in the area of AQ, there are still unaddressed country development challenges which are as follows:

1. **Weak capacities and tools for AQ planning and assessment to manage priority AQM zones of the country** - Ongoing EU project EPFACC covers development of AQ plans for Tbilisi and Batumi. Central Zone, including Rustavi was covered by Sida. The West Zone is not covered by ongoing technical assistance. However, this development challenge will be addressed by another parallel project under this EU

Programme to be implemented by the consortium of Slovak-Spanish Agencies. More specifically, Slovak Environmental Agency will assist MEPA in developing West Zone AQ plan, based on existing AQ monitoring, emission inventory and modelling data, while the Spanish consultants will work on improvement regulation and control of vehicle emissions.

2. **Insufficient AQ monitoring system** – Based on AQ monitoring road map, total of 27 AQ stations are needed to have full coverage of the country. 9 AQ monitoring stations, including 2 mobile stations are operated by NEA. 9 new AQ stations, including 1 mobile station will be acquired and installed this year through Sida's assistance<sup>22</sup>. Tender dossier with detailed technical specifications and other requirements has been already prepared by NEA and agreed upon with Sida. Thus, there is still lack of 9 stations, to meet EU AQ monitoring criteria as per CAFE directive and the road map. The road map does not envisage acquisition and installation of AQ monitoring station in Chiatura, which is one of the hotspots of fugitive dust emissions (particulate matter containing e.g. manganese), due to open mining activities. Therefore, a gravimetric sampler is needed for this town to measure fine particles and other specific components, including manganese. The needs which are confirmed and agreed upon with MEPA.
3. **Poor/absent AQ modelling and forecasting capacities and tools** – current AQ modelling capacities are limited at NEA. FARM model, currently tested by the agency is applicable for regional pollution assessments and thus, there is still a need for finer-scale and more complex (e.g. urban) AQ models. A couple of environmental consulting firms engaged (e.g. Ecospectre, Gamma, etc.) in environmental baseline and impact assessments and development of emission limits for industries, use dispersion models to identify AQ impacts of target industrial facilities. However, none of them carry out AQ assessments larger geographic areas, and AQ models used by them are not applicable for such assessments. AQ forecasting tools, they are absent at NEA. Most importantly, NEA does not have well-established QA/QC system, including tools for initial and final data validation and verification, which is partially addressed by parallel EU EPFACC and Sida projects.
4. **Non-existence of a national reference laboratory** (NRL) – ongoing EU EPFACC project covers feasibility study/CBA for the reference laboratory and focuses on the capacities of NEA. Moreover, based on CBA, NEA will develop a Road Map for the establishment of the NRL. The rest (e.g. development of specifications, hard and soft assistance in purchasing, installing and commissioning lab analysis equipment, etc.) is not tackled. According to MEPA, it is planned to allocate a proper building space for the NRL in 2025 and therefore, it is crucial to purchase the necessary equipment after this action. In general, GoG has neither experience nor financial resources to establish and properly run the NRL. Therefore, external technical and financial assistance is needed to fully equip and operationalize the NRL.
5. **Lack of widely accessible, user friendly and secure AQ web-portal** – Current AQ web-portal is not fully user-friendly, secure enough<sup>23</sup> and does not have well-understandable health messaging. In addition, there is no user-friendly mobile device to be applied for checking AQ levels at different positions. This task will be implemented as part of the sister/parallel project to this EU programme.
6. **Limited knowledge and capacities on the health impact assessment of air pollution and available tools, as well as limited public health/epidemiological data** - existing EPFACC project only includes pilot environmental health assessment for Tbilisi and Batumi. EU Twinning project also works on environmental health assessment for Tbilisi, Batumi, Kutaisi and Rustavi, using limited available data.
7. **Absence of institutional set-up for law enforcement of EURO 5/V equivalent vehicle emission standards which were adopted on 28 June 2023 and which are to be effective starting from 2024. Local knowledge and capacity, including relevant infrastructure (e.g. mobile exhaust testing equipment) for regulation and law enforcement to implement recently adopted EURO 5/V equivalent emission standards is also practically absent** - technical assistance and capacity building are needed to enable responsible units (e.g., Custom department, MEPA/ESD, LTA, MIA, etc.) to implement the new requirements. The main challenge is that parts of vehicles imported into Georgia do not have certificates of emission standards and it will be difficult for the responsible department/agency to identify the emission standards of such vehicles. This gap/challenge will be addressed by the complementary project under this EU programme to be implemented by Slovak and Spanish Consortium namely, by Spanish partners.
8. **Absence of gender mainstreaming and social inclusion tools in environmental and in particular in ambient AQ management, lack of capacity development trainings for application of tools, low**

<sup>22</sup> Automated AQ monitoring stations acquired by NEA through Sida's assistance will be installed in Tbilisi, Rustavi, Kutaisi, Batumi, Zugdidi, Telavi, Akhaltsikhe and Mestia

<sup>23</sup> anyone with basic knowledge of a computer can hack the system.

**awareness raising on the subject, missing local knowledge and capacity** – not covered by any of ongoing assistance.

9. **Lack of knowledge and capacity of permitting and law enforcement officers of MEPA on integrated pollution prevention and control (IPPC), and IPPC permit system implementation** – ongoing EU EPFACC project includes several classroom training sessions for relevant decision-makers from governmental authorities on BATs. To complement and build on the results of the EPFACC project, trainings for MEPA staff should be continued. Moreover, a study tour(s) to EU member states especially to new EU member states with more or less similar to Georgia industry profiles may be value-added. While a similar study tour was conducted under the Twinning project led by Spain (2017-2018), BATs have evolved and the situation in Georgia has changed as the law on Industrial Emissions based on EU IED has recently been enacted, with BATs for targeted industries to be introduced by 2026. Implementation of the new law requires significant institutional and staff-level capacity and knowledge building. This process in MEPA has started with restructuring of its units and sub-ordinated bodies, resulting in notable staff turnover, with some core staff engaged leaving the Ministry and some additional units and new staff added/to be added to the Ministry. Training of staff through a study tour and capacity-building trainings is therefore important. Moreover, self-paced on-line courses in Georgian language with proper BAT-related content, including a terminology are missing at MEPA, a gap that can be filled through the development of e-learning course under this project, which could certify permitting and law enforcement authorities and industrial representatives and thus may add a sustainability element to the capacity building and knowledge management programmes of MEPA in regulating industrial emissions.
10. **Lack/absent industry knowledge, resources and incentives to implement BATs via applying state-of-the-art technologies, inputs and processes and implementing resource-saving measures** – ongoing EU EPFACC project covers some aspects of BAT implementation. To complement activities and to build on the result under EPFACC, BAT pilot project(s), including a feasibility study and cost assessment, is needed to be supported for demonstration and replication purposes, and financial assistance is needed to retrofit/upgrade existing plant(s), especially SMEs. Trainings and a study tour for both government and industry representatives to new EU member states with similar to Georgia industry profiles may be highly beneficial for acquiring practical knowledge for regulation and control of industrial emissions, on the one hand, and for compliance with BAT requirements on the other hand, particularly in view of the recently enacted law on industrial emissions. Apart from knowledge and capacity gaps, there are not any kind of incentives in the country to promote BAT implementation and meeting ELVs.
11. **Outdated vehicle fleet not meeting EU emission standards as well as lack of cleaner, more efficient vehicles (e.g. electric cars); absent regulatory or economic instruments / fiscal policies to promote the fleet renewal and increase fuel efficiency** – in order to address this issue there is a need for conducting a feasibility study on introducing specific regulatory or economic instruments, stakeholder consultations, advocacy and lobbying with high-level decision makers. This challenge will be addressed by sister/parallel project under the given EU Programme to be implemented by Slovak-Spanish consortium.

Above-mentioned critical challenges need an external donor assistance due to their complexity and lack of in-house knowledge and resources within key stakeholders, in particular MEPA and industries. Especially, the assistance from EU and its Member States and/or agencies – with expertise and experience in EU acquis approximation – would be a value added in order for Georgia to fully meet its obligations under EUAA. Some of these challenges are currently being fully or partially addressed by Sida and EU projects mentioned in previous paragraphs that includes but is not limited to the development of AQ planning frameworks, regulation and control of vehicles emissions, etc. However, an additional technical assistance is needed in those areas, which lack either government or donor financing. These priority areas are as follows:

- AQ monitoring, assessment, modelling and forecasting;
- AQ data quality management;
- Gender mainstreaming and social inclusion tools in environmental and in particular in ambient AQ management, lack of capacity development trainings for application of tools, low awareness raising on the subject, missing local knowledge and capacity;
- Further regulation of industrial emissions and strengthening of capacities for implementation of the Law on Industrial emissions.

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## II. STRATEGY

### 2.1 Intervention Logic

In order to address the persisting AQ challenges in Georgia in those areas of AQ management where additional donor assistance is needed highlighted in previous part, three UN agencies – UNDP, WHO and UNECE in a partnership with Umweltbundesamt - Environment Agency Austria (UBA) will carry out the present Project.

The Project has the overall objective: **To improve air quality in order to better protect the health of citizens** that will be attained through following specific objective (SO1, same as outcome): **Better capacity to monitor, analyse and regulate air quality.**

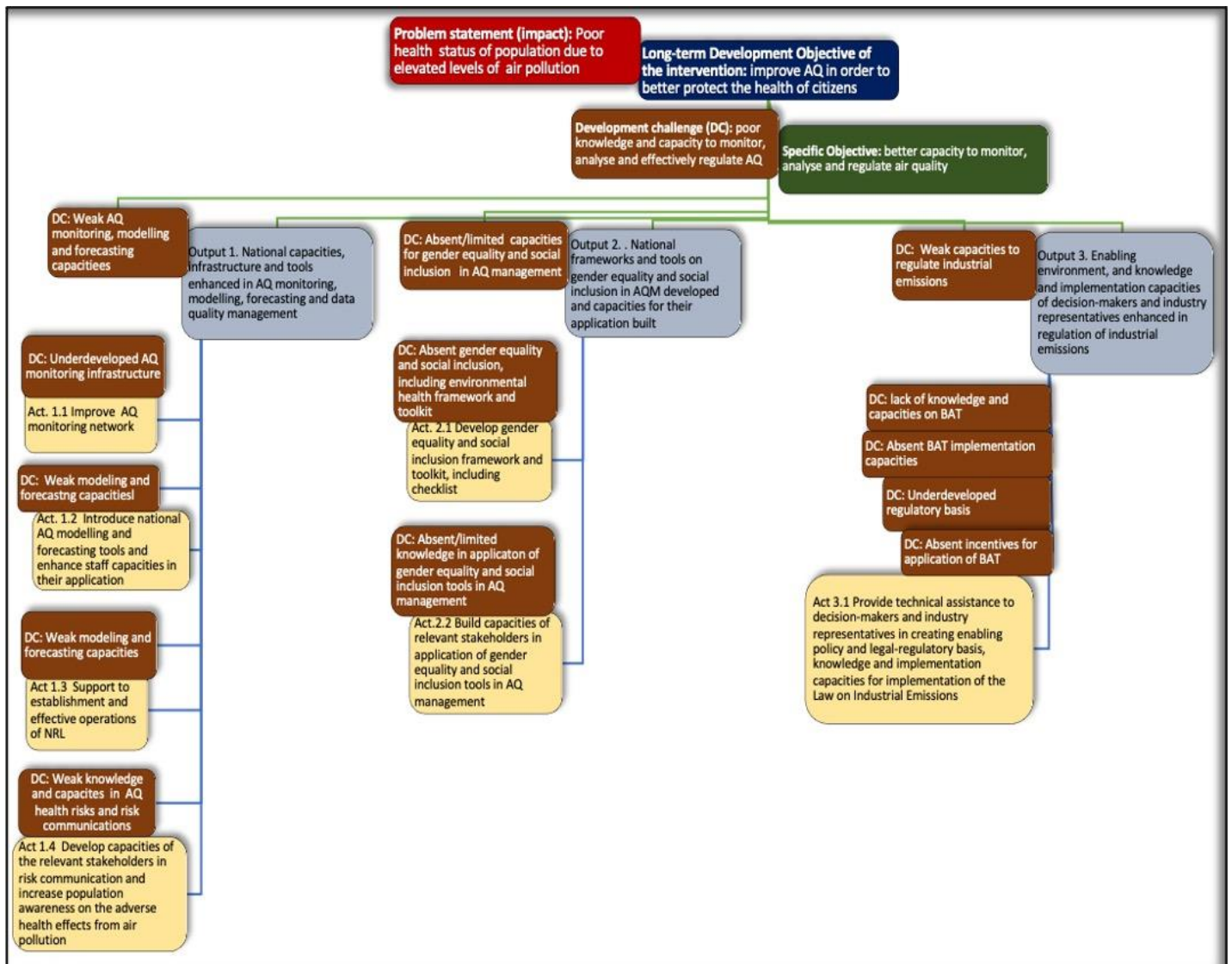
The Project will enhance the national capacity to monitor and analyse air quality through:

- improving AQ monitoring network in existing AQ management zones as well as in Chiatura, suffering from elevated levels of “toxic” dust containing manganese, due to open pit mining operations
- improving modelling and forecasting capacities of NEA under MEPA as well as the quality/validity of AQ measurements
- Supporting GoG in establishing and commissioning a national reference laboratory, and building national capacities in operations and maintenance of analytical and inter-calibration equipment
- Building national capacities in adopting and applying gender equality and social inclusion framework and a toolkit, including checklist in AQ management and environmental health assessments

The Project will enhance regulatory capacities of the GoG through supporting implementation of the Law on Industrial Emissions that will include:

- elaboration and support to the adoption of technical regulations on BAT
- A study on BAT incentives, including concrete proposals and their promotion
- Implementation of a pilot project on BAT on a private sector cost-sharing basis
- And, knowledge and capacity building of MEPA and industry representatives on regulation of industrial emissions/BAT

Figure 1 below depicts a diagramme of a Theory of Change (ToC).



**Figure 1. Theory of Change**

The Achievement of the Outcome (SO1) of the project will depend on following assumptions (detailed risks and assumptions are described in detailed in risk matrix, results framework and logframe of this document):

- All parallel donor assistance projects, contribute successfully to the development of capacities for AQ monitoring and regulation; GoG (MEPA/NEA) is fully committed to provide proper O/M for received equipment and software and maintain trained staff for longer periods; No significant force majeure happens.
- Sufficient reliable health and AQ data is available; All parallel donor assistance projects contribute successfully to Georgia's capacity development in environmental health;
- Industries are interested to engage in BAT-related activities and co-fund a pilot; GoG is willing to introduce incentive schemes for industrial emissions; Private sector is acceptive of incentives introduced; Multi-stakeholder cooperation is successful; MEPA provides effective leadership for a multi-sectoral dialogue and consultations; No significant force majeure happens.

The Logical Framework Matrix in the EU format, which summarizes in a single framework the main characteristics and specification of intervention, including measurement indication and it is also a relevant tool of the monitoring and evaluation process of the Project throughout its implementation. The results chain includes:

- Outputs: results directly delivered by the programme and under its control;



- Outcomes (specific objectives): intermediate changes that the Project effects on the target audiences or populations (e.g., change in knowledge, attitudes, beliefs, skills, behaviours, access to services, policies, etc.); they are under Project direct influence, but not under its direct control;
- Impact (overall objective): the long-term change the intervention aims to contribute to, but which can only be indirectly influenced; impact is a cumulative effect of multiple interventions over time on what they ultimately aim to change (e.g., a population-level health outcome).

## 2.2 Relevance of the Project

### 2.2.1 Strategic alignment with existing national, UN and EU policies

The Project is in line with key environmental and environmental health strategies and plans of Georgia as well as with UN/UNDP and EU relevant policies including EU Pillar approach. Following are the strategic documents and approaches which the Project conforms to:

#### National Policies:

- **Vision 2030 – A long-term development strategy for Georgia** - OBJECTIVE 14.4: Improve ambient air quality and develop an ambient air quality monitoring and evaluation system – improvement AQ legislation, pollution abatement from various sectors, expansion of AQ monitoring network (installation and put into operations total of 18 automated AQ monitoring stations, 22 gravimetric instruments and 2 mobile stations by 2026), introduction of AQ modelling and forecasting system and data quality management and control mechanisms, establishment of AQ monitoring and management zones and agglomerations, development of AQ plans, improvement of AQ data portal and development of corresponding mobile application introduction of integrated permitting system for industries, based on BATs and emission limit values;
- **National Environmental Action Programme (NEAP-4), 2022-2026<sup>24</sup>** - Strategic objectives: 2. Improved prevention and control mechanisms for industrial emissions, 3. Enhanced effectiveness of environmental supervision and law enforcement, and 7. Ensured clean and safe for public health AQ across Georgia;
- **National Environmental Health Action Plan (NEHAP)-2 for 2018-2022** - Reduce the harmful effects of ambient and indoor air pollution on human health;
- **AQ Monitoring Roadmap** – minimum requirements for AQ monitoring network in line with EU CAFE directive;
- **National CC strategy for 2030 and action plan for 2021-2023** – Objectives: 4.1 Reduce the level of greenhouse gas emissions from industrial processes and energy consumption of industrial facilities by applying BAT; **National Sustainable Development document and localized SDGs:** SDG 3: Healthy life and well-being for all people (3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination)SDG 5: Achieve Gender Equality and Empower All Women and Girls (5.1 Reduce all forms of discrimination against all women and girls everywhere; 5.5 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision making in political, economic and public life); SDG 9: development of sustainable infrastructure, promotion of inclusive and modern industrialisation and innovations; SDG 11: inclusive, safe and sustainable development of cities and settlements;
- **National Action Plan for 2022–2024** on the implementation of the Women, Peace and Security agenda

#### UN policies:

- **UN-Georgia Strategic Development Cooperation Framework (SDCF) for 2021-2025:** outcome 5: By 2025, all people, without discrimination, enjoy enhanced resilience through improved environmental governance, climate action and sustainable management and use of natural resources in Georgia.<sup>25</sup>
- **UNDP CPD, Output 2.1 and Output 2.2<sup>26</sup>;**
- **The UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP) and its protocols**

#### EU policies:

- **EUAA Chapter 3; Annex XXVI – Environment and Annex XXVII – Climate Action;**

<sup>24</sup> საქართველოს გარემოს დაცვის მოქმედებათა მეოთხე ეროვნული პროგრამა (NEAP 4), 2022-2026. <https://www.matsne.gov.ge/ka/document/view/5563250?publication=0>

<sup>25</sup> [https://unsdg.un.org/sites/default/files/2020-11/Georgia\\_UNSDCF\\_%202021%20to%202025\\_0.pdf](https://unsdg.un.org/sites/default/files/2020-11/Georgia_UNSDCF_%202021%20to%202025_0.pdf)

<sup>26</sup> [https://www.undp.org/sites/g/files/zskgke326/files/migration/ge/undp\\_ge\\_cpd\\_georgia\\_2021-2025.pdf](https://www.undp.org/sites/g/files/zskgke326/files/migration/ge/undp_ge_cpd_georgia_2021-2025.pdf)

- **Green and Health Team Europe Initiative in Georgia** - focuses on following transformational potential: 1) to contribute to a multi-sectoral transformation towards a greener country more respectful of the environment and of the health of its citizens, 2) to accelerate a long-term and complex societal transition in Georgia engaging the participation of all actors of society, 3) to stimulate the creation of green jobs and reinforce the resilience of the country through reinforcing its attractiveness. The initiative includes following 6 pillars: 1) TA and capacity building to institutions to ensure a proper implementation of the relevant legislation, 2) equipment for the institutions to ensure their functions of protection of the environment and health of the population, 3) better air quality and water quality: monitoring stations, water supply and sanitation, public awareness, 4) solid, chemicals and hazardous waste management, 5) equip the country with modern infrastructure to deliver a new level of services to citizens in the sectors of water, waste, and urbanisation - green cities, 6) equipment and tools to protect forestry and biodiversity: sustainable forest management, timber measurement technology. The Given EU Action is fully in line with Team Europe Green and Health, directly contributing to its pillar 3 - better air quality and water quality. It has also a subsidiary contribution to following pillars: TA and capacity building for implementation; tools and equipment for the institutions to ensure their functions of protection of the environment and health of the population.
- **Georgia's flagship priority 5: 'Improved Air Quality' under Georgia's Economic and Investment Plan** - helping over 1 million people in Tbilisi breathe cleaner air. The given EU Project intends to implement multiple, systemic, capacity building and infrastructure improvement measures across the country. It has synergies with ongoing EU TA on Environment and CC and other similar efforts, which will ultimately lead to **improved health of Georgian population, especially in heavily polluted areas including Tbilisi.** The project will be implemented in close coordination with the Green and Health Team Europe Initiative in Georgia, as well as the Tbilisi focused EIP Georgia Flagship on improved air quality. By joining forces with Environment Agency Austria (Umweltbundesamt), UNDP together with other UN partner agencies will ensure that the project contributes to the Team Europe policy dialogue with the Georgian authorities on AQ improvement. In addition to this, it will provide EU and Team Europe visibility.

UNDP, UNECE, WHO and UBA – having relevant experience, expertise, available resources, and already established strong strategic partnerships and stakeholder/community of practice network in Georgia – are best positioned to successfully implement the Project. Below is a list of project partners, with brief elaboration of their experience and technical competence:

- **UNDP:** At the global level UNDP has developed a legal screening tool for air pollution and health. At the local level, In the field of AQ (e.g. Sida-funded GRF project) UNDP Georgia has been assisting NEA for years. Therefore, it gained comprehensive experience in AQ monitoring and assessment in line with related Conventions, protocols and EU Directives - an indispensable requisite for the project. This includes the ability to develop AQ monitoring road maps and facilitate their official adoptions, to name a few. UNDP has been supporting Georgia in controlling Ozone Depleting Substances (ODS), in preparing and implementing national communications under UNFCCC and the NDCs under the Paris Agreement. UNDP regularly supports MEPA in improving climate policies and strategies under EU4Climate initiative. In addition, under the multi-million (GCF/SDC/SIDA), large-scale programme on climate-induced multi-hazard risk reduction, UNDP has been supporting the expansion of hydrometeorological, agrometeorological and geological monitoring infrastructure and developing modelling and forecasting capacities. Over 141 pieces of hydrometric, meteorological and hydrometeorological posts and stations have been procured and are being installed jointly with NEA through the partnership agreement (Letter of Agreement) with UNDP. The latter has provided technical advice to NEA in designing specifications, tender documents and installations and supervised overall procurement project. This partnership has worked very well, as NEA gains experience for managing large projects and increases its ownership. Such approach will also be considered under the given Project. Extensive work has been performed to establish forecasting and modelling capacities for climatic hazards, strengthened by comprehensive training of NEA staff and improved ICT systems.
- **UNECE:** UNECE provides the secretariat to the Air Convention, the only MEA regulating air pollutants on a broad regional basis. BAT-based ELVs are referred to in the most recent protocols<sup>27</sup> to the Air Convention and are mirrored in IED 2010/75/EU. The Task Force on Techno-Economic Issues under the Convention has developed several guidance documents identifying best abatement options focusing on BATs. Through the Task Force, UNECE has an excellent expert network with EU Member States Agencies working in the area of BATs, such as French CITEPA, German KIT and Italian ENEA. To promote the understanding and implementation

<sup>27</sup> Protocol on Heavy Metals, the Protocol on POPs and the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol)

of the Convention and its protocols across the UNECE region, UNECE has organised subregional workshops on BATs, modelling of emission projection scenarios and transport emissions. In addition, UNECE also carried out several emission inventory workshops in Georgia and a national legislation analysis resulted in a national action plan to accede to and implement the latest protocols to the Convention. In 2022, UNECE organized a national clean air dialogue in Georgia to discuss progress towards implementation of actions outlined in the national action plan, and to promote discussions on next steps among governmental and non-governmental organisations. UNECE develops tools on integrating gender aspects into environmental policies and provides capacity building trainings for government officials at national and local level on gender mainstreaming in environmental policies.

- **WHO:** WHO is the UN agency specialised in promoting multilateral cooperation in the area of health and is supporting the countries' efforts to improve health outcomes linked to environmental risks, through sharing good practices, research, policies and action on environmental and occupational hazards to health and strengthening environmental surveillance and information systems. WHO has strong expertise in environment and health, including reducing the health burden of air pollution and Climate Change (CC). It is providing transformative policy approaches, knowledge, decision-support and advocacy tools, and technical assistance to countries in assessing the health impacts of improving AQ and mitigating CC, attaining health-based AQ targets, reducing polluting fuel technologies, strengthening health systems and communities, resilient to climate change, and promoting cleaner energy, the use of public transport and non-motorised mobility. Moreover, it has normative role, through developing the [AQ guidelines](#)<sup>28</sup>, methods and tools, and maintains and strengthens global and regional thematic networks of experts to provide support to countries in need. WHO has developed AQ related tools, including on the links to CC mitigation, household fuel combustion, and non-motorised transportation (AirQ+, HEAT, CLIMAQ-H, etc.). WHO ECEH is chairing the Joint Task Force on the Health Aspects of Air Pollution<sup>29</sup>, established in 1997 within the UNECE Convention on Long-range Transboundary Air Pollution. WHO is a valued partner to the Georgian authorities in promoting better health through healthier environments for Georgian population and has an extensive experience in the field of air quality within the Georgian context, e.g., NEHAP 2, capacity building AQ and health guidelines and tools, etc.
- **Umweltbundesamt - Environment Agency Austria (UBA):** The Umweltbundesamt - Environment Agency Austria (UBA) is a top provider of environmental services in various areas, including AQ monitoring, emission inventories, pollutants release and transfer register, AQ information systems and data reporting, etc. The agency makes use of its experience from environmental research projects, carried out in collaboration with research institutes and universities, and provides consultancy services in large areas of expertise including assessment of EU policy implementation across EU Member States, provision of recommendations to policy makers, capacity building of South-eastern Europe countries in their adaptation to EU legislation and implementation of environmental policies, environmental data management and reporting. It is noteworthy to mention that UBA's calibration laboratory under the Department for Air Pollution Control, Buildings & Registries has been acting as National EU Reference Laboratory for Ambient AQ since the coming into force of the Austrian Ambient Air Quality Protection Act in 2000. It is accredited as calibration laboratory according to EN ISO/IEC 17025 hence, the Agency has a vast experience in operating EU-compliant reference lab. Concerning AQ modelling and forecasting, UBA agency has a long-term cooperation with the GeoSphere Austria (formerly Central Institute for Meteorology and Geodynamics/Zentralanstalt für Meteorologie und Geodynamik – ZAMG) who through its Department of Environmental Meteorology conducts AQ modelling and forecasting. As of 1 January 2023 as a result of a merger of ZAMG and Austrian Geological Survey (Geologische Bundesanstalt - GBA) a new Federal Institute for Geology, Geophysics, Climatology and Meteorology (Geosphere Austria) was formed. Thus, UBA may engage experts of GeoSphere Austria or other organizations with similar mandates and expertise in providing technical assistance to NEA/MEPA in AQ modelling and forecasting.

### 2.2.3 Familiarity with relevant approaches in the sector as well as understanding of regulatory framework, policy developments and implementing approaches

UNDP, WHO, UNECE and UBA have pooled together comprehensive knowledge of EU AQ, industrial emissions acquis as well as sector approaches to address economic instruments and policy issues. UNDP CO in Georgia has strong grasp of current institutional settings, policy context, capacities and infrastructure of air governance sectors.

<sup>28</sup> WHO global air quality guidelines, 2021 (<https://www.who.int/publications/i/item/9789240034228>)

<sup>29</sup> Joint Task Force on the Health Aspects of Air Pollution (who.int)

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WHO is the global lead agency in environment and health and develops normative guidance on environmental health assessments/epidemiological studies, compiles environmental health statistics and provides health related recommendations and, data and limit values to be considered by countries for the protection of human health.

UNECE provides the secretariat to the Air Convention, the only multilateral environmental agreement to reduce air pollution on a broad regional basis. The Convention provides access to emissions, measurement and modelling data and information on the effects of air pollution on ecosystems, health, crops and materials.

WHO/Europe and UNECE provide joint secretariat to the Transport, Health and Environment Pan-European Programme (THE PEP) designed to integrate environmental and health aspects into transport, mobility and urban planning policies, as well as the European Environment and Health Process (EHP) aiming to eliminate the most significant environmental threats to human health. Moreover, in 1997 UNECE and WHO established a Joint Task Force on the Health Aspects of Air Pollution to assess the health effects of such pollution and provide supporting documentation. The Task Force works to quantify how long-range transboundary air pollution affects human health and helps define priorities to guide future monitoring and abatement strategies. It also advises on monitoring and modelling activities to improve the quality of assessments. Its work is based on estimates of air pollution concentrations (particularly those derived by the Cooperative Programme for Monitoring and Evaluation of Long-range Transmission of Air Pollutants in Europe – EMEP), and on the results of hazard assessment carried out by WHO.

UBA has strong expertise and experience within and outside Austria (EU member states and South-East Europe) in providing environmental services including AQ monitoring (e.g. macro- and micro-siting of sampling points, monitoring equipment, data processing), calibration services, inter-laboratory comparisons (gaseous pollutants, and particles) and QA/QC protocols and procedures. UBA has established strong partnership with sister agencies and thus can provide expertise and experience in AQ modelling and forecasting and will bring its in-house and external expertise and know-how in Georgia under the given Project.

#### **2.2.4 Country presence, capacity and programme**

UNDP has been active in Georgia since 1993, with a goal to accelerate the transition to sustainable development, ensuring that the most vulnerable and excluded are not left behind. It will implement the project using own staff, recruited Project Team and external consultants. The staff will provide operational backstopping to the Project Team, including HR, financial services, procurement, logistics and contracting services. The professional capacity of UNDP Georgia is based on rules, procedures and fiduciary standards fully in line with the best international standards demonstrated at the large-scale initiatives. These shall ensure an efficient approach to the EU Green Connectivity Programme and the overall aim of the project. UNDP Energy and Environment portfolio since 2000 has implemented over 80 projects with around USD 75 million investment (approx. USD 30 million from GEF and USD 27.5 million from the GCF). Its overarching goal is to support Georgia's transition to sustainable and low-carbon economy/development, build climate resilient eco-systems, communities and livelihoods. The UNDP EE team manages a big contingent of project staff and consultants hired on service or individual contracts. Current (2021-2025) Portfolio budget is around USD 46 million for a range of initiatives covering CC adaptation and mitigation, climate policies and countries' strategies, biodiversity conservation, Ozone layer protection, etc. All UNDP projects are subject to independent project evaluations<sup>30</sup>, recommendations as well as lessons learned are considered, especially for future actions.

Similar to UNDP, WHO is also present in Georgia since 1993, providing leadership and advice on health care sector development and intersectoral health issues, as well as technical assistance along the major health care reforms and priorities, including ameliorated environment factors for better health outcomes. WHO in Georgia is equipped with a strong team of national and international staff covering a broad range of health areas, also a national professional officer dedicated to environmental and health work. As well, in the recent past, the office has managed to built-up solid programme management experience enabled by durable administrative, financial and logistical capacities. Noteworthy is the WHO CO GEO has been extensively partnering with the EU in the past 3 years (over 15 million EUR) supporting Georgia mitigating the COVID-19 pandemic, advance key priorities and reforms in health sector in partnership with the national authorities, UN and other developmental partners. WHO CO GEO will be further supported by the WHO European Centre for Environment and Health (ECEH), Bonn, Germany, will provide technical expertise both from distance and through country missions.

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<sup>30</sup> Examples of such evaluations can be seen [here](#)

UNECE and UBA as partner agencies without resident country offices in Georgia provide technical expertise from a distance (e.g. virtually) and will carry out in-country missions and engagement of respective national partners. WHO Country Office in Georgia will be further supported by the WHO European Centre for Environment and Health (ECEH), Bonn, Germany, which will provide technical expertise both from distance and through country missions.

### **2.2.5 Deployment of high-level and technical experts as required**

UNDP Georgia as a member of the global UNDP community, enjoys access to UNDP in-house knowledge, expertise and resources in the environment protection, CC and AQ management. It has also the capacity to rapidly mobilise top-notch international expertise, as well as to resort to the regional experience where needed through its well-established roster of consultants/community of practice. Through close collaboration all project partners – UNDP, UNECE, WHO and UBA – will also draw upon their competitive advantages, specialised knowledge and experience in fostering synergies and complementary effort in achieving the intended results. Moreover, outside their own agency rosters each agency has country-specific or international best practice professional networks, which can be utilised effectively upon demand. UBA will provide its experts to share the experience of EU Member States in approximation with EU AQ management systems.

### **2.2.6 Relevance of the methodology**

Project partners will apply a blend of methods to ensure effective implementation. Methods will comprise international-standard based feasibility studies, stakeholder consultations and consumer dialogues (including human-centred co-design of required products, e.g. gender equality and social inclusion as well as and environmental health equality tools), facilitation of policy reforms through developing packages of regulatory requirements and policy adaptations. The project will engage a wide range of stakeholder through various stakeholder engagement tools and mechanisms, including workshops, consultations, personal or on line meetings, parliamentary committee hearing and PSC where it will invite key government agencies, e.g. MEPA, MoESD, NCDC as PSC members. The project will set-up a comprehensive capacity building programme to include guidance documents, trainings and study tour(s) where appropriate. Finally, the project will exploit synergies and cooperate closely with, build on and thereby complement ongoing projects and activities, in particular with the EU EPFACC and environmental health Twinning projects.



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### III. RESULTS AND PARTNERSHIPS

#### 3.1 Expected Results/Outputs and Activities

The Project has the overall objective: **To improve air quality in order to better protect the health of citizens** that will be attained through the following outcome: **Better capacity of the Government of Georgia to monitor, analyse and regulate air quality.**

The mentioned outcome will be delivered through the following three outputs:

- Output 1. National capacities, infrastructure and tools enhanced in AQ monitoring, modelling, forecasting and data quality management
- Output 2. National frameworks and tools on gender equality and social inclusion in AQM developed and capacities for their application built
- Output 3. Enabling environment, knowledge and implementation capacities of decision-makers and industry representatives enhanced in regulation of industrial emissions

These three outputs/key results will be attained through implementing following 6 activities:

##### **Output 1:**

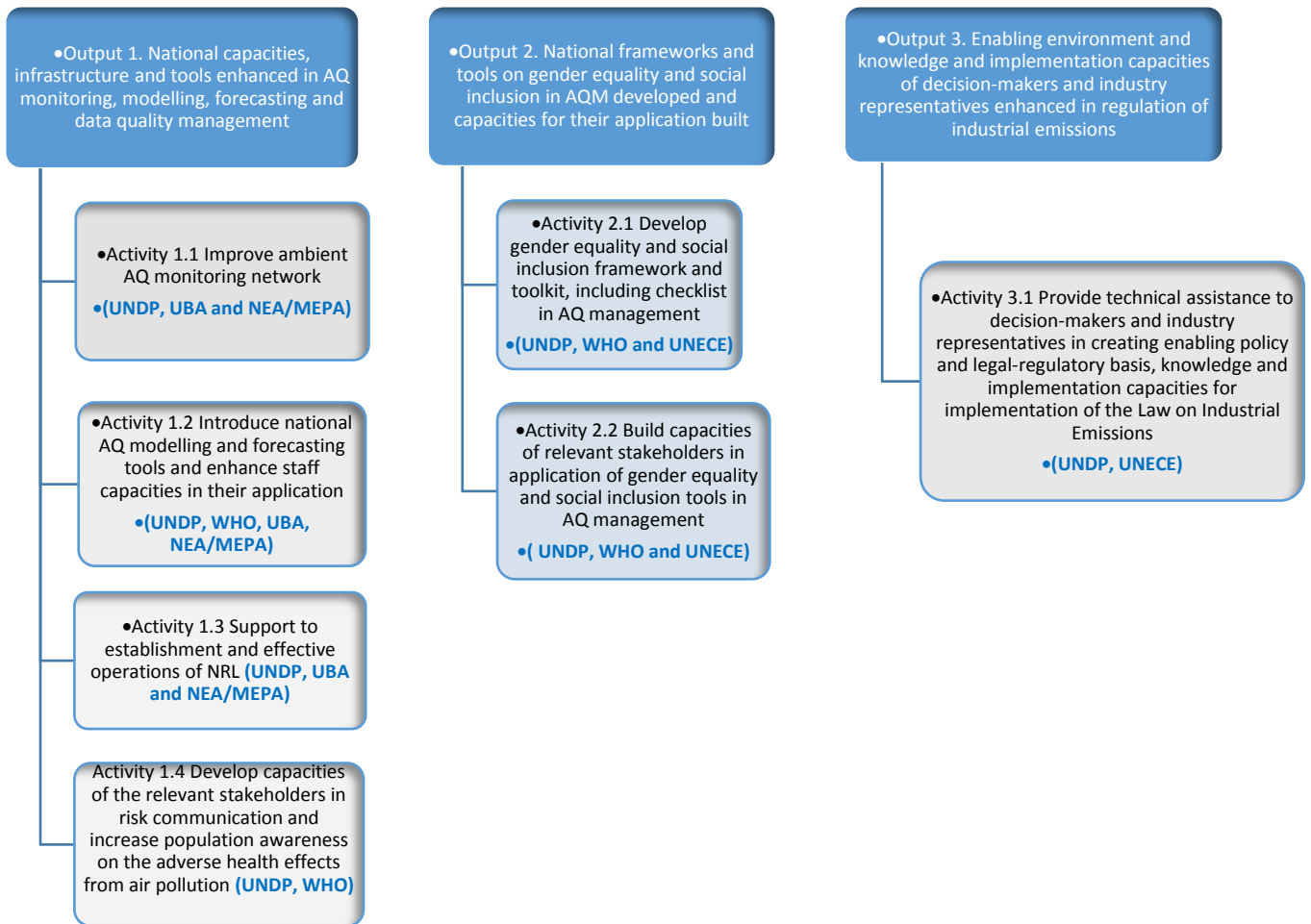
- Activity 1.1 Improve ambient AQ monitoring network
- Activity 1.2 Introduce national AQ modelling and forecasting tools and enhance staff capacities in their application
- Activity 1.3 Support to establishment and effective operations of NRL
- Activity 1.4 Develop capacities of the relevant stakeholders in risk communication and increase population awareness on the adverse health effects from air pollution

##### **Output 2:**

- Activity 2.1 Develop gender equality and social inclusion framework and toolkit, including checklist in AQ management
- Activity 2.2 Build capacities of relevant stakeholders in application of gender equality and social inclusion tools in AQ management

##### **Output 3:**

- Activity 3.1 Provide technical assistance to decision-makers and industry representatives in creating enabling policy and legal-regulatory basis, knowledge and implementation capacities for implementation of the Law on Industrial Emissions



**Figure 2. Diagramme of Outputs, Activities and Responsible organizations**

While UNDP is the implementing partner and responsible for the coordination of the overall action, the technical activities' implementation will be carried out in a spirit of complementarity and synergetic collaboration with WHO, UNECE and UBA, to ensure good usage of the most relevant expertise and comparative advantages in that area.

Below is given the description of activities and sub-activities that will be implemented under the Project in order to achieve each result/output:

**Output/result 1:** National capacities, infrastructure and tools enhanced in AQ monitoring, modelling, forecasting and data quality management

#### **Activity 1.1 Improve ambient AQ monitoring network**

Activity 1.1 will include:

- review of existing documentation on AQ monitoring stations, outlined in AQ Monitoring Roadmap as well as in a tender dossier developed under on-going Sida project: Save the Nature., and in consultation with MEPA and relevant parallel EU projects (e.g. EPFACC), development of specification for the stations to be procured
- Procurement of AQ monitoring stations, their installation, calibration
- Training of NEA's staff in proper operation and maintenance of stations

At this stage, what is known from the AQ Monitoring Roadmap and MEPA, 9 new stationary continuous AQ monitoring stations are needed to meet the minimum requirements of EU CAFE and its daughter directives in terms of the density of the network. At least 5 stations, out of 9 should include gravimetric equipment to measure heavy metals and B(a)P.

**Table 1. List of locations where new AQ monitoring stations are needed to be installed according to the AQ Monitoring Roadmap and NEA/MEPA**

#	Location	Status/type of area	Municipality	Region	AQ zone	Exact location	Type of station
1	Poti	Self-governing City	Poti	Samegrelo-Zemo Svaneti	Black Sea	Central Park	Urban Background (UB)
2	Ozurgeti	City, administrative centre of the region	Ozurgeti	Guria	Black Sea	Triangular Park	UB
3	Zestaponi	City, administrative centre of the municipality	Zestaponi	Imereti	West	Industrial area	Industrial (Ind)
4	Zestaponi	City, administrative centre of the municipality	Zestaponi	Imereti	West	Irene Park	UB
5	Rustavi	Self-governing City, administrative centre of the region	Rustavi	Kvemo Kartli	Central	Village Tazakendi	Ind
6.	Bolnisi	City, administrative centre of the municipality	Bolnisi	Kvemo Kartli	Central	# 1 Public School	UB
7.	Gori	City, administrative centre of the region	Gori	Shida Kartli	Central	Stalin Avenue	UB
8.	Signagi	City, administrative centre of the municipality	Signagi	Kakheti	East	Museum	UB
9	Borjomi	City, administrative centre of the municipality	Borjomi	Samtskhe-Javakheti	High mountainous	Borjomi-Kharagauli national park	Rural Background

In addition to fixed (stationary) automated AQ monitoring stations – based on the outcomes of project planning consultations with representatives of AAD and NEA – there is a need for acquisition of a gravimetric sampler for Chiatura town, due to the city's suffering from high levels of fine particulate matter, containing manganese and other toxic metals. Given Chiatura has small population size and density, a fewer vehicles, practically zero number of stationary sources of pollution to cause elevated levels of ambient air concentrations of various criteria pollutants (except for PM), and multiple diffused sources of PM pollution from open pit mining operations, it is more reasonable and cost effective to acquire gravimetric sampler for this town, which is not considered a priority settlement for MEPA/NEA to monitor priority/criteria substances such as NO<sub>x</sub>, SO<sub>2</sub>, VOCs, etc. (except for PM). This location is not included in the AQ monitoring road map, an official guidance document for NEA. Gravimetric sampling allows for subsequent analysis via AAS (Atomic Absorption Spectroscopy) or ICP-MS (Inductively Coupled Plasma Mass Spectrometry), which are well known analytical methods for other heavy metals. The reference method for measurement of arsenic, cadmium, lead and nickel according to European Union Directive 2004/107/EC is the one described in EN 14902:2005, which names these methods. Gravimetric samplers are available as weather-proof and stand-alone instruments, i.e., such samplers do not need a further housing or a complete AQ monitoring station, which allows for a more flexible siting of the instrument at lower costs.

Based on the review of existing documentation and consultations with representatives of AAD and Environmental Pollution Monitoring Department of NEA as well as with ongoing EU parallel projects addressing the AQ issues, detailed specifications and a tender dossier for new AQ monitoring stations will be developed that will be followed by acquisition, installation and commissioning of AQ monitoring equipment. On-demand technical assistance to NEA will be provided in developing annual operational plans for the new monitoring stations, including budget allocation from NEA to cover O/M costs. From time to time NEA's performance will be checked through site visits, information meetings and, a review and concurrence of periodic progress report of NEA.

UNDP will provide daily management to the project, liaise with key local counterparts in particular, with NEA/MEPA, periodically monitor and review project progress and report back to EU Delegation. As UNDP's partner agency, UBA through its in-house AQ experts will review the results of AQ monitoring road map/identify needs, develop specifications for AQ monitoring equipment, including ensuring compatibility with existing monitoring network, conduct market research for the equipment and contribute to preparation of the tender dossier in terms of minimum

requirements and technical qualifications of suppliers. Actual procurement will be carried out by UNDP for NEA, as per the request of the later. However, the procurement package will be agreed with NEA, as the recipient of the to-be-procured stations prior to the tender launching.

UNDP, with support from UBA technical experts, will organize up to three training sessions of NEA's staff in proper operation and maintenance of stations. This is required to ensure full functionality of AQ monitoring network as well as operation of the stations. Depending on the needs number of trainings may be revised.

### **Activity 1.2 Introduce national AQ modelling and forecasting tools and enhance staff capacities in their application**

Activity 1.2 will focus on three aspects:

- AQ modelling and forecasting;
- AQ health impact assessment modelling;
- Data quality and data management.

Under AQ modelling and forecasting part, a feasibility study – proving an option analysis on AQ modelling and forecasting tools – will be conducted, taking into consideration inter alia following criteria:

- existing AQ practices and tools used by NEA/MEPA;
- existing meteorological modelling and forecasting tools used by NEA/MEPA;
- availability of emission inventories, and AQ and meteorological data;
- existing inhouse capacity of NEA for AQ and meteorological modelling and forecasting;
- compatibility with existing computer operating system used at NEA/MEPA;
- international standard-based models widely applied in EU and elsewhere;
- precision, robustness, multi-scale (e.g. regional, urban, etc.) applicability and simplicity to run the model;
- Cost considerations.

It is noteworthy to mention that recently NEA has started application of AQ model FARM, which is a multi-grid Eulerian model for dispersion, transformation and deposition of airborne pollutants in gas and aerosol phases. The model is more applicable for regional pollution assessments rather than for urban air quality for large cities, like Tbilisi which is a top priority concern in the country in terms the status of AQ and population exposure. In the recent past NEA had a project-based experience with UK based ADMS-urban model, which was used in 2014 under EU funded initial technical assistance project for Georgia in order to conduct initial AQ assessment for Georgia, Tbilisi and several larger cities and draw preliminary recommendations on the AQ assessment methodology, number and location of AQ monitoring stations, passive sampling points, zones and agglomerations and also, population exposure for key pollutants (The Air Quality Governance project in (ENPI) East Countries, 2014). Since then, NEA has not used this model.

A comprehensive listing of air quality models and forecasting tools, including those with low/no cost used in Europe can be found at the EIONET Model Documentation System web; Also, in official documents of a FAIRMODE- EU JRC<sup>31</sup>. Widely used open-source models are e.g. the Community Multiscale Air Quality Modelling System (CMAQ) suggested by US EPA<sup>32</sup> or the Weather Research and Forecasting (WRF)<sup>33</sup> model coupled with Chemistry (WRF-Chem)<sup>34</sup>, developed and maintained by NOAA in strong collaboration with other research groups. It is noteworthy to mentioned that Slovak Hydrometeorological Institute (SHMU) which will be engaged in developing AQ plan for West Zone of Georgia and assist MEPA in upgrading AQ portal under parallel complementary project of this EU initiative, uses CMAQ as well.<sup>35</sup>

A feasibility study will be carried out in close consultation with parallel EU projects addressing AQ issues (e.g. EPFACC as well parallel project under this Environment and Health Call) as well as with MEPA and based on these consultations and feasibility study findings the most appropriate/optimum model(s) and forecasting tool(s) will be selected and a concept will be developed for calibration, testing, which will be followed by trainings to NEA's staff in application of these tools.

<sup>31</sup> FAIRMODE - EU JRC: <https://fairmode.jrc.ec.europa.eu/> - platform for national experts on modelling (applying their own models; inter-comparison methodology) (<https://fairmode.jrc.ec.europa.eu/Segment/Terms>)

<sup>32</sup> CMAQ - USEPA: <https://www.epa.gov/cmaq> - open source modelling/ models and extended documentation (<https://www.epa.gov/cmaq/cmaq-documentation>)

<sup>33</sup> <https://esrl.noaa.gov/gsd/wrfportal/>

<sup>34</sup> <https://ruc.noaa.gov/wrf/wrf-chem/>

<sup>35</sup> <https://www.shmu.sk/en/?page=2661>

In order to allow coupling of AQ and meteorological models to improve predictions, the project will support a close cooperation of NEA's two departments – Environmental Pollution Monitoring and Hydrometeorology, as well as will establish a close cooperation with ongoing UNDP/GCF/SDC/Sida project *Scaling-up Multi-Hazard Early Warning System and the Climate Information in Georgia*, which among other scope also works on improvement of meteorological modelling and forecasting.

In order to improve AQ monitoring, modelling and forecasting data quality and data management, under the activity 1.2, data validation and data management software will be identified and procured/adapted. As it was mentioned above, NEA uses regional AQ model FARM. Ambient air quality model FARM uses the Arianet website: <http://www.aria-net.it/>. NEA through technical assistance trainings learned the use of the software – F-Air (<http://doc.aria-net.it/F-Air>), a support tool for the management and control of the operations of integrated modelling steps for AQ forecasting. More specifically, this software includes all necessary stages from the initial data (emission inventories, meteorology, chemical initial and boundary conditions) preparation to FARM running, and post-processing of data. F-Air is unavailable to NEA and is one of the priority needs of this agency, based on consultation with the management and technical staff of NEA during project design phase.

NEA prepares initial data in its own computer programme, then processes data in WRF, and prepares FARM for launch. NEA also has a FARM enabling software. The disadvantage of this soft is that, unlike F-Air, it does not have a graphical interface and cannot automatically manage configuration files. Configuration files must be aligned and aligned manually before starting specific calculations. It also lacks a root logging system.

Concerning data validation and verification, NEA connects to VPN 172.16.2.230 remote desktop from where it accesses the validation programme as “airadmin” user. It should be noted that during these three years air monitoring specialists have been working in the validation programme created by the Italians, which is not well-understandable to Georgian specialists. First of all, NEA needs to have a programme written at least in English, at best in Georgian.

AQ and health modeling/impact assessment part of the activity will introduce the package of WHO environmental health assessment tools, including the links to climate change mitigation, household fuel combustion, and non-motorised transportation (AirQ+, HEAT, CLIMAQ-H, etc.).

Quantifying the effects of exposure to air pollution in terms of public health has become a critical component in policy discussion. Beneficiaries will be offered opportunities to build and/or enhance capacities to assess the health risks and impacts of air pollution, both ambient and household, through the introduction and hands-on training on several tools, developed by WHO, namely:

- **AirQ+ tool** is a widely used software that performs calculations that allow quantification of the health effects of exposure to air pollution, including estimates of the reduction in life expectancy, for the most significant air pollutants. The tool was first presented in Georgia in 2018. AirQ+ training workshop is estimated as a 4-5-day capacity building activity, with practical application of the tool, where participants work on national/local data collected beforehand. This practical training on the use of the tool (software) is accompanied by an introductory theoretical part to set the scene and provide basic info about the current knowledge on AP and health. That is important for the interpretation of the results of using the tool.
- **CLIMAQ-H - Climate Change Mitigation, Air Quality and Health** software is another new tool. Air pollution and climate change share common drivers, therefore policies that reduce emissions also improve air quality, bringing health co-benefits. CLIMAQ-H tool can be used to estimate the health and related economic gains achieved by Member States by implementing actions and measures aimed at mitigating climate change by reducing domestic carbon emissions, as reported in the nationally determined contributions. Using methodologies based on evidence from epidemiological studies, CLIMAQ-H calculates the annual benefit of averted long-term mortality and morbidity from exposure to ambient air pollution. New training curriculum for CLIMAQ-H tool will be developed and offered to beneficiaries, as pilot implementation.
- **HEAT** (Health Economic Assessment Tool), which estimates the value of reduced mortality that results from regular walking or cycling, or
- **BAR-HAP** (Benefits of Action to Reduce Household Air Pollution), which is a planning tool for assessing the costs and benefits of different interventions that aim to reduce cooking-related household air pollution.

Under this activity WHO work will consist of:

- **development/adaptation of environmental health impact assessment tools** (AirQ+, CLIMAQ-H, HEAT, BAR-HAP) for the Georgian needs;
- **development/adaptation of a training curriculum and materials** on the environmental health impact assessment tools and their application; and



- **organisation and delivery of 4 capacity building workshops** for both **environment and public health professionals** (one per tool).

Under this activity, UNDP will partner with WHO and Umweltbundesamt (UBA) - Environment Agency Austria. More specifically:

- UNDP will provide overall management to the activity, liaise with and mobilize local stakeholders and carry out procurement of necessary software;
- UBA will conduct a feasibility study in close consultation with MEPA/NEA and parallel EU projects and provide a technical advice and trainings to NEA staff in proper operations of AQ modelling and forecasting tools;
- WHO will provide its technical expertise to local stakeholders on applying WHO tools on Air Pollution/Health through tools development/adaptation and provision of capacity building for environmental and capacity building professionals (as described above).

Under the given activity UNDP, UBA and WHO will cooperate closely with parallel complementary (“sister”) project under the same EU Green and Health Programme to be implemented by a Slovak-Spanish consortium as well as with ongoing EU EPFACC project and EU Twinning -Support to implementation of Health Impact Assessment practice in Georgia with NCDC. From Slovak side, Slovak Hydrometeorological Institute (SHMU) and its Department for Emission and Air Quality Monitoring will be engaged in AQ assessment and modelling and development of AQ plan for West Zone of Georgia. Data and information collected as well as assessments made under two projects will be exchanged and methods for AQ modelling will be coordinated between two parallel “sister” projects.

### **Activity 1.3 Support to establishment and effective operations of a national reference laboratory (NRL)**

Activity 1.3 will include:

- review of the feasibility study/cost analysis for establishing NRL in Georgia, being currently developed under EU EPFACC project, focusing on NEA’s internal capacities and needs, followed by development of detailed specifications for analytical and calibration equipment of the reference laboratory of NEA
- acquisition, installation and commissioning of NRL’s equipment
- training of the staff of the NEA in O/M of the testing and calibration equipment;
- provision of a technical assistance to the NEA in QA/QC procedures, analysis and intercalibration and intercomparison protocols, preparation to international accreditation/certification, and cooperation with AQUILA - formal network of European NRFs.

UNDP will implement the activity with thematic contribution of UBA. More specifically, UNDP will provide overall management to the activity, organize/convene trainings, procure analytical and calibration equipment and periodically monitor operations of this equipment by NEA; UBA – through its inhouse experts – will provide technical advice to NEA in validation/needs assessment study being developed under EPFACC project, establishing and running the NRL, metrological service provision, QA/QC, development of specification for the equipment to be purchased, and the capacity building, including trainings of NEA staff in O/M and calibration equipment, QA/QC procedures, analysis, intercalibration and intercomparison protocols, etc. This will create the basis for NEA to receive an international accreditation and network with AQUILA.

The NRL to be established should meet the requirements of [Directive 2008/50/EC](#) (CAFE) pursuant to Article 3 and Annex I of the given directive, and should be accredited according to EN/ISO 17025<sup>36</sup> for the reference methods referred to in Annex VI, at least for the pollutants for which concentrations are above the lower assessment thresholds, according to the relevant harmonized standard for testing and calibration laboratories.

The NRL’s purpose should be as follows:

- assessment of ambient air quality;
- approval of measurement systems (methods, equipment, networks and laboratories);
- ensuring the accuracy of measurements;
- analysis of assessment methods;
- coordination of quality assurance programmes.

<sup>36</sup> ISO/IEC 17025 - Standard of International Standardization Organization setting general requirements for the competence of testing and calibration laboratories. It is applicable to all organizations performing laboratory activities, regardless of the number of personnel.

Under this activity, UNDP and UBA will closely cooperate with ongoing EU EPFACC project and will discuss the soft and hard assistance needs with the project's relevant experts.

#### **1.4 Develop capacities of the relevant stakeholders in risk communication and increase population awareness on the adverse health effects from air pollution**

Communication and outreach, awareness raising, and public participation are instrumental to achieve transformational change, promoting adaptive actions and pro-environment behaviours.

The importance of risk communication on the adverse health effects from air pollution is recognized in several key WHO and United Nations documents. Resolution WHA68.8, Health and the Environment: addressing the Health Impacts from Air Pollution, identifies the following key activity: providing information to policymakers and the public about the health impacts of air pollution and actions to reduce them. At a broader level, raising awareness of the risks from air pollution is aligned with and supports the United Nations' strategic priorities for the prevention and control of non-communicable diseases, as well as those established in the 2030 Agenda for Sustainable Development.

**Quality health messaging** can help users to react specifically to elevated levels of ambient air pollution. Georgia provides health risk messages based on index categories and organized by pollutants and sensitive groups are specifically mentioned (e.g. for O<sub>3</sub>, people with asthma) and recommendations made for behaviour modification.

**Focused research is needed to understand how the public uses air quality information and AQ indexes, including any special alerts:** Important questions to consider include how many people are aware of the index and, for those who are aware of it, whether they consult the index regularly, whether they modify their behaviour in response to information from the index, and what specific actions they take in response to the index values and associated health messages.

The importance of **health-care providers in raising public awareness and interpreting air quality information.** Healthcare providers are a trusted source and need to be trained and empowered to provide relevant health information and advice in relation to air pollution. WHO training on risk communication in environment (air pollution) and health, can be used to increase knowledge among health care providers. In addition, information and communication materials could be specifically developed for healthcare providers so that they, in turn, can better educate their patients.

Under this activity, in attempt to strengthen risk communication on air pollution, increase the general population awareness of air quality, its causes and effects on health and encourage informed healthier behaviours, WHO will implement the following targeted sequential interventions:

- **Capacity building in risk communication in environment and health, in particular on AP and health for the health-care providers, public health professionals and relevant staff of MoDPLHSA and MEPA** (information on the principles of risk communication, and on affected subpopulations, describe likely symptoms and providing advice on approaches to reduce exposures and health risks).
- **Focused research/social listening: 2 behavioural insights studies on public understanding and usage of the air quality information and indexes – baseline and after the awareness raising component completion to evaluate the effectiveness of health messaging** (ex. how many people are aware of the index, whether they consult it regularly, whether they modify behaviour in response to the information, and what specific actions they take in response to index values and associated health messages). The surveys' scope will potential cover the following main themes: current environmental and air quality awareness, perceived indicators of air quality and health effects, current understanding and awareness of air quality indicators, needs and requirements of air quality information, trust, responsibilities and influence.
- **Awareness raising campaign with tailored messaging** (ideally, based on the 1<sup>st</sup> wave of behavioural insights research findings).

**Output 2:** National frameworks and tools on gender equality and social inclusion in AQM developed and capacities for their application built

Acknowledging the shortcomings in recognising and responding to gender dynamics and social inclusion considerations in relation to the management of AQ, the activities of Output 2 are intended to provide pragmatic solutions to allow for systematic application of gender and social inclusion in AQ management practices.

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To ensure a coherent approach to the activities of Output 2, for both activity 2.1 and 2.2, WHO and UNECE will work together to ensure that substantive aspects reflect the experiences and best practices of both organisations, while the intersectionality of gender, social inclusion and health will also be accommodated comprehensively in how the activities are designed and delivered. Preparatory workshops will be held for WHO and UNECE teams to prepare and effectively synchronise their respective scope and responsibilities under these activity categories.

### **Activity 2.1 Develop gender equality and social inclusion framework and toolkit, including checklist in AQ management**

The role of gender analysis in environmental epidemiology has a potential to provide a model for exploring other social factors that can shape population responses to air pollution and contribute to designing effective interventions with an aim of improving population health, including vulnerable groups. In the context of air pollution, it is more about different exposure pattern (due to different behaviours), not only to ambient air pollution but also to household air pollution; there is a component of different susceptibilities (for example in case of pregnant women). Also, using gender perspective heading women could be empowered as 'agents of change'. This activity refers also to social inclusion – and that goes broader, taking into account different groups, including with different social and economic status, education, access to healthcare, outdoor workers, etc.

A comprehensive **gender equality and social inclusion framework, toolkit and checklist** which brings together the expertise and proven guidance approaches of both WHO and UNECE will be jointly developed under activity 2.1, ensuring a simple and pragmatic suite of resources is provided for project beneficiaries, which is adaptable to the local context and needs. These products will be based on UNECE and WHO existing tools, methods, and experiences in working to address gender equality, environmental health inequalities, air pollution related health impact assessment tools, as well as approaches developed in consideration of localised behavioural and cultural insights. The combined work of WHO and UNECE in these areas, may also include the work on AQ reporting/communication tools that would incorporate specific health aspects of vulnerable groups (elderly, children, people with special health conditions, etc. that are particularly affected by poor air quality).

UNDP will provide overall management to the activity. WHO will implement the activity 2.1 in close cooperation with UNECE. Both organisations will work collaboratively to bring together in-house expertise and proven approaches to develop the framework, toolkit and checklist to offer concrete guidance in relation to gender and social inclusion within AQ management and environmental health considerations. Specifically, UNECE will leverage its available tools and past experiences in relation to gender equality interventions while WHO will contribute environmental health expertise with a focus on air quality management and health and have coordination role vs-a-vis key government counterparts – MEPA and NCDC based on the already established partnerships and communication channels.

WHO and UNECE joint work under this activity will result in **a consolidated gender equality and social inclusion framework** (that is incorporating environmental health, gender and social dimensions), **and propose a toolkit (including a check-list) for its operationalisation.**

### **Activity 2.2 Build capacities of relevant stakeholders in application of gender equality and social inclusion in AQ management**

Activity 2.2 is complementing the work under activity 2.1 and will ensure that targeted beneficiaries of the **gender equality and social inclusion framework and the operationalisation toolkit and check list**, will be further supported in **developing capacities** to operationalise and optimise the benefits of these tools and instruments. In practice, this will include a set of **capacity building interventions aimed to strengthen the relevant stakeholders'** (MEPA, NCDC, National Gender Committee, selected local municipalities, etc.) **capacities in gender equality and mainstreaming**, as well as, in social inclusion in environmental area in general, and AQ management in particular (since the project's scope is strongly AQ related) **using frameworks and tools designed under activity 2.1.**

The capacity building of stakeholder will also include **pilot application of gender and social inclusion analysis framework and a toolkit**, as well as **environmental health assessment tools** for a selected AQ management plan part, which will be pre-agreed with MEPA, NCDC, and other key government counterparts.

This approach will also ensure the activity 2.1 deliverables are well understood by beneficiaries and adopted into AQ management processes effectively. The practical application of the activity 2.1 deliverables within the scope of capacity building allows for any arising issues of compatibility or synchronicity with AQ managing processes to be addressed

collectively with practitioners, to ensure that there is a high degree of sustainability and resilience to the application of activity 2.1 tools in the daily work of AQ management.

In its capacity as a Regional Commission, UNECE applies bespoke tools and instruments to ensure a meaningful change for gender equality is accommodated in how the organisation does business and delivers its mandate. UNECE brings this expertise to activity 2.2, in the design of proven methodologies for the incorporation of gender equality into highly specialised, technical areas of work and the design of accompanying capacity building efforts. Having a regional vantage point, also allows UNECE to readily draw from best practices from across the region and ensure proven practices in similar contexts are applied to upcoming interventions. The promotion of knowledge sharing, cooperation and collaboration is a core aspect of UNECE's work, allowing for such approaches to also be taken forward by wider interested partners and collaborators.

WHO's work on gender equality and social inclusion would focus on the **health aspects of air pollution, including on different vulnerable population groups**. It would benefit from the ongoing WHO work on EH inequalities, behavioural and cultural aspects, and consideration of vulnerable groups, including children, (pregnant) women, people with chronic diseases, as well as those socially disadvantaged. In **developing capacity building training on the inclusion of gender equity and social inclusion in AQ management**, WHO would also build on the WHO global air quality guidelines<sup>37</sup> (AQG), the resource package to support the implementation of the WHO AQG in Member States of the WHO European Region<sup>38</sup>, as well as existing tools and the guidance on risk communication in environment/air pollution and health<sup>39,40</sup>.

Similar to activity 2.1 implementation, WHO and UNECE will closely collaborate and implement the technical scope through provision of technical knowledge and expertise in the areas of gender and social inclusion, including environmental health aspects under the WHO stewardship. As part of the activity implementation WHO and UNECE will liaise with and mobilize – in cooperation with MEPA and NCDC – key stakeholders for trainings and engagement in pilot activities.

**During the capacity building workshops, WHO will train relevant stakeholders in environmental health aspects of gender equality and social inclusion framework and tools, as well as in their operationalisation and practical application, with participation of key government counterparts (e.g. NCDC) will carry out pilot assessment, while UNECE will train target stakeholders in gender mainstreaming as part of the gender equality and social inclusion framework as well in application of the tools designed under activity 2.1 and with participation of local stakeholders will conduct pilot gender impact assessment in the area of AQ management.**

The expected key deliverables of this activity and close cooperation between WHO and UNECE are, as follows:

- a set of training materials on environment and health aspects of gender equality and social inclusion (WHO);
- a set of training material based on the gender mainstreaming (UNECE);
- at least one capacity building workshop on environment and health aspects of gender equality and social inclusion (WHO) and on gender aspects of the framework (UNECE);
- a guidance note on piloting the application of the tailored tools to the relevant key counterparts (WHO and UNECE);
- at least one pilot application of Gender Equality and Social Inclusion and Gender Mainstreaming framework and tools.

**Output 3:** Enabling environment, knowledge and implementation capacities of decision-makers and industry representatives enhanced in regulation of industrial emissions

**Activity 3.1 Provide technical assistance to decision-makers and industry representatives in creating enabling policy and legal-regulatory basis, knowledge and capacities for implementation of the Law on Industrial Emissions** – This activity will include following sub-activities/steps, which will be closely coordinated with the EPFACC project and/or will be based on EPFACC's outcomes:

<sup>37</sup> [WHO global air quality guidelines: particulate matter \(PM2.5 and PM10\), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide: executive summary](#)

<sup>38</sup> [Protecting health through ambient air quality management: a resource package for the WHO European Region](#)

<sup>39</sup> [Risk communication of ambient air pollution in the WHO European Region: review of air quality indexes and lessons learned](#)

<sup>40</sup> [Effective risk communication for environment and health \(who.int\)](#)

- review and update of existing draft regulations, developed under Twinning assistance on Large Combustion Plants, Waste Incineration and Co-incineration and Surface Treatment Using Organic Solvents including Preservation of Wood and Wood Products with Chemicals, in line with updated Georgian legislation, including the Law on Industrial Emissions, Directive 2010/75/EC on industrial emissions (EU IED) and relevant BAT reference documents (BREFFs), including BAT conclusions (BATCs);
- support to implementation of BAT on a pilot basis:
  - *a feasibility study to estimate the cost of implementing BATs for at least 1 existing plant using (among other possible tools) the Emission Control Cost Estimation Tool (ERICCa Tool) and to elaborate recommendations for retrofitting/upgrading the selected installation/plant. This study will be based on an analysis of BAT compliance in the sectors covered by the EPFACC project (large combustion plants, cement production, waste co-incineration, poultry production, iron and steel production, sulfuric acid production), which will serve as a "step 1" for the present project. The objective of the study (step 2) under this project will be therefore to determine the cost of retrofitting the selected facility(ies) and to provide a detailed analysis of the available BATs on the market in terms of their cost-effectiveness and emission reduction potential, which will then be used as the basis for the pilot retrofitting project (step 3). However, depending on the results of the compliance analysis conducted under the EPFACC project (step 1), other key pollution sector(s) (e.g. ferroalloys production) may also be considered as part of this feasibility study (step 2). In this case, the study will include both a preliminary assessment of BAT compliance and cost assessment for retrofitting/upgrading*
  - *stakeholder consultation on the results of the feasibility study that will also include a close consultation with ongoing EU EPFACC project*
  - *implementation of at least 1 pilot BAT on a cost-sharing basis based on the outcomes of the feasibility study and stakeholder consultation as well as based on the lessons learned out of similar industry demonstration projects (e.g. UNDP demonstration projects<sup>41</sup> on retrofitting commercial refrigeration facilities from using low/zero ODP<sup>42</sup> and GWP<sup>43</sup> technologies and substances)*
  - *Sharing of pilot BAT results with other industries and key decision-makers for replication and upscaling*
- A study, including recommendations for the GoG on specific industries' incentives, based on best international practices; promotion of adoption of BAT incentives, through supporting cross-agency, government industry dialogue and advocacy;
- knowledge and implementation capacity building of permitting and law enforcement authorities, and industry representatives in industrial emissions regulations and control, lessons learned out of pilot project(s) and the application of BAT and other cost-effective measures in the sector. This will include:
  - *a study tour to an EU country for relevant decision-makers and industry representatives to learn about an EU country's experience on IPPC BAT and its practical operation - compliant installations, results of BAT in one sector (e.g., energy or other appropriate sector). This study tour will be based on the outcomes of earlier study tours under the Twinning project led by Spain (2017-2018). Since these study tours, the situation in Georgia has changed, as a result of the new law on Industrial Emissions, restructuring of MEPA, and ensuing staff turnover. Therefore, the target audience for the planned study tour will differ from the previous ones and will also include representatives of the industrial sector(s) selected for the feasibility study. At the same time, the range of BATs have evolved, which is why showcasing practical examples by an EU country is deemed useful;*
  - *training sessions for industry representatives, regulators and law enforcement officers. Based on the outcomes of the EPFACC project, the trainings will focus on the 5 BAT conclusions that were translated already and explain them further, but pending on demands of MEPA, the scope of the trainings may be extended to other industrial sectors and relevant BATCs.;*
  - *development/adaptation of training modules/manuals/guidebook(s), and e-learning self-paced course<sup>48</sup> in Georgian. The e-learning course will provide a one-stop shop explaining legislation and practical implementation on BATs, targeting sectors for which BAT conclusions have been translated and feasibility studies have been carried out under the EPFACC and the present projects, taking into account existing BAT guidance documents.<sup>50</sup> However, the course may also cover other important sectors in agreement with MEPA. The course will consist of several modules addressing both legislative, enforcement and technical aspects, including case studies, practical examples, illustrations*

<sup>41</sup> UNDP phase I and II projects on phasing out HCFCs, supported by multi-lateral fund

<sup>42</sup> Ozone Depleting Potential

<sup>43</sup> Global Warming Potential

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*and quizzes to assess learning progress. It will also include a glossary explaining BAT terminology, including those terms already set out in the Georgian Law on Industrial Emissions based on the EU IED and the translated BAT conclusions. The course will be a concrete and lasting product that industry, regulators and law enforcement officers can consult after the in-person trainings and that can also be used for new staff to avoid loss of institutional memory. At the end of the e-learning course, learners can take an assessment test to gain a certificate of completion. This certification can be included in EIEC's professional training programme. As with the previous e-learning courses UNECE developed on the [Convention and its protocols](#) and on [emission inventory development](#), the course on BATs will be hosted on the existing and well-established [UNCC:ellearn platform](#), which is managed by the United Nations Institute for Training and Research (UNITAR) and hosts e-learning courses that are free of charge. Information about the course and links to the [UNCC:ellearn platform](#) will be posted on the EIEC landing page. The course will be launched through a webinar for a wide audience with an invitation to all Georgian stakeholders to encourage them to take the course.*

UNDP in a partnership with the secretariat of the UNECE Convention on Long-Range transboundary Air Pollution (Air Convention) will implement sub-activities under the activity 3.1. More specifically, UNDP will provide overall management to the activity, organise industry and government consultations, disseminate results of pilot BAT project among various industries, advocate for adoption of recommended BAT incentives among key decision-makers, and provide organizational/logistical support for class-room trainings and a study tour as well as operational support for implementation of BAT pilot project. Moreover, through hired local legal experts UNDP will review and, as needed, revise draft regulations in support of the Law on Industrial Emissions. UNECE through in-house and invited experts' assistance will carry out feasibility studies on BAT pilot and incentives, provide technical advice to the project on selection and design of BAT pilot, conduct trainings of government and industry representatives, contribute thematically to the study tour, and develop an e-learning self-paced course. Close consultations will be carried out with the EPFACC project to ensure complementarity of activities aimed at improving capacities for the application of the recently adopted Law on Industrial Emissions. Depending on the results of these consultations during inception phase and later, as well as MEPA's position and needs, there might be adjustments to the proposed plan of action for this output 3. These will be defined and agreed upon and accordingly documented.

### **3.2 Resources Required to Achieve the Expected Results**

The following resources will be provided for the project:

- UNDP will manage the given project on a daily basis, including financial and administrative management, monitoring, reporting, stakeholder engagement, advocacy and communications, etc. UNDP Country Office (CO) in Georgia will provide programmatic and operational backstopping to the project, including communications, M&E, quality assurance, recruitment, procurement, financing. This will be ensured by UNDP Georgia country office team, including Programme team: Environmental and Energy Team Leader, Programme Associate, and Monitoring and Evaluation Officer; Communications team;
- WHO will provide technical expertise in environmental health related activities under output 1 (Activity 1.2 and 1.4) and 2 (Activity 2.1 and 2.2).
- UNECE will bring technical expertise in industrial emission control and gender equality to enhance knowledge and capacities of decision-makers and industry representatives in regulation and control of industrial emissions and practical application of BAT, as well as in gender.
- UBA will bring expertise in AQ monitoring, modelling, forecasting and data calibration and inter-comparison – to provide technical advice to MEPA/NEA in assessing existing AQ monitoring network and identifying gaps/validating findings and recommendations of AQ Monitoring Road Map, validating cost analysis for NRL being conducted under EU EPFACC project, in consultation with NEA, designing specifications for: AQ measurement equipment, analytical and calibration equipment and validation software, conducting a feasibility study/needs assessment for AQ modelling and forecasting tools, adapting existing open source/low cost AQ modelling and forecasting tools, assisting NEA in installation, commissioning of and proper O/M of AQ monitoring and laboratory equipment through trainings, coaching and mentoring.



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### 3.3 Partnerships

As it was mentioned above, all project partners will pull together their expertise to implement the Project. Moreover, a close cooperation will be established with UBA as EU pillar assessed organization – through the Letter of Agreement<sup>44</sup> between UNDP and UBA – to act as a responsible party for activities 1.1 through 1.3 (Output 1). UBA from its side will invite AQ modelling and forecasting experts from GeoSphere Austria or other organizations with similar expertise and experience as sub-contractor(s). Moreover, all project partners will assist relevant key agencies (e.g. NEA/MEPA, NCDC) and industries to establish professional networks with their peers in European countries through existing community of practice forums, platforms and networks (e.g. AQUILA, FAIRMODE - EU JRC, USAID CMAQ User Community, etc.). NEA, a Legal Entity under the Public Law under MEPA will be a responsible party for installing, commissioning and proper O/M of AQ monitoring stations, installing and running AQ model and forecasting tool as well as analytical and calibration equipment (in case it is selected as NRL).

During the course of work, the Project will establish close links with on-going similar UNDP and other donor projects in particular, parallel EU EPFACC and EU Green and Health Initiative representatives (e.g. Slovak Environmental Institute) to better plan and implement complementary activities, exchange information, data, lessons learned and solicit experts' opinion, through regular e-mail communications, peer-to-peer meetings, inviting representatives of these projects to extended PB meetings and stakeholder consultations.

For pilot BAT implementation, UNDP CO will enter into a partnership with at least one selected industrial facility to implement BAT on a cost-sharing basis. Moreover, for replication and upscaling purposes opportunities for cooperating with commercial refrigeration sector facilities targeted for demonstration to retrofit their equipment to low GWP-based equipment/substances under ongoing UNDP project: HCFC Total Phase-out Management Plan (HPMP) - Second (2nd) Stage will be explored. In addition, UNDP will make efforts to facilitate industry cooperation with such funding mechanisms and projects, as: EU4Business Initiative that made available incentive grants and loans for private sector for the acquisition and installation of energy efficient and innovative technologies not yet widely available locally.

### 3.4 Risks and Assumptions

Below is given a summary of risks and assumptions as well as mitigation measures. More detailed description of the risks is provided in the Risk Matrix attached as Annex II. Details on environmental and social risks are provided in Social and Environmental Screening Procedure SESP tool attached as Annex III.

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<sup>44</sup> <https://poppp.undp.org//document/standard-loa-between-undp-and-gvt-institution-igo-support-services-nim-project>

**Table 2. Summary of Risks and Assumptions<sup>45</sup>**

Risk	Assumption	Risk Type	Risk Likelihood and Probability <sup>46</sup>	Management Response
<b>1/ There is a risk of weak cooperation between parallel donor assistance projects to develop AQ management capacities</b>	All parallel donor assistance projects cooperate closely and contribute successfully to the development of capacities for AQ monitoring and regulation	7. STRATEGIC (7.3. Stakeholder relations and partnerships) - UNDP Risk Appetite: OPEN TO SEEKING	Likelihood: 2 - Low likelihood  Impact: 2 - Minor  Risk level: LOW (equates to a risk appetite of MINIMAL)	<b>UNDP will invite all relevant donor project representatives to participate in the Inception Workshop and extended PB meetings as well as in activity-specific multi-stakeholder meetings and consultations. Constant communication lines will be established with relevant donor projects' consultants, and data and information will be exchanged with them. Working level coordination groups might also be considered on specific activities</b>
<b>2/ There is a risk that GoG (MEPA/NEA) does not have capacity to provide proper O/M for received equipment and software and maintain trained staff for longer periods</b>	GoG (MEPA/NEA) is fully committed to provide proper O/M for received equipment and software and maintain trained staff for longer periods	4. ORGANIZATIONAL (4.2. Execution capacity) - UNDP Risk Appetite: EXPLORATORY TO OPEN	Likelihood: 2 - Low likelihood  Impact: 3 - Intermediate  Risk level: MODERATE (equates to a risk appetite of EXPLORATORY)	<b>UNDP will negotiate allocation of resources for O/M of equipment with MEPA/NEA and will monitor this commitment periodically</b>
<b>3/ There is a risk of natural hazards and disasters (e.g. floods, earthquakes, pandemic, etc.)</b>	The risk of large-scale, disruptive to project implementation natural hazards and disasters is low	1. SOCIAL AND ENVIRONMENTAL (1.5. Climate change and disaster risks) - UNDP Risk Appetite: CAUTIOUS	Likelihood: 3 - Moderately likely  Impact: 3 - Intermediate  Risk level: MODERATE (equates to a risk appetite of EXPLORATORY)	<b>UNDP and Project Board will closely monitor risk log and together with NEA/MEPA will prepare a contingency plan for management/mitigation of impacts of the force majeure situation</b>
<b>4/ There is a risk that sufficient and reliable environmental health and AQ data is not available</b>	sufficient and reliable environmental health and AQ data is available	4. ORGANIZATIONAL (4.5. Monitoring and oversight) - UNDP Risk Appetite: EXPLORATORY TO OPEN	Likelihood: 3 - Moderately likely  Impact: 3 - Intermediate  Risk level: MODERATE (equates to a risk appetite of EXPLORATORY)	<b>Project Partners will collect all available data (both measures and estimated) from various sources, including open sources and use for pilot application of environmental health and GESI tools.</b>

<sup>45</sup> Risk matrix is given in Annex II

<p><b>5/ There is a risk that Industries are not interested to engage in BAT-related activities</b></p>	<p>Industries actively engage in BAT related project activities</p>	<p>5. REPUTATIONAL (5.2. Engagement with private sector partnership) - UNDP Risk Appetite: CAUTIOUS</p>	<p>Likelihood: 3 - Moderately likely</p> <p>Impact: 3 - Intermediate</p> <p>Risk level: MODERATE (equates to a risk appetite of EXPLORATORY)</p>	<p>MEPA jointly with project team, composed of UNDP and UNECE experts will conduct knowledge and capacity building activities for industries; will carry out a feasibility study, identify potential businesses willing and interested to introduce BAT on a cost-sharing basis, jointly with MEPA and MoESD conduct close consultations and negotiations with them and agree upon a cost-sharing amount and modality. The results of the BAT pilot will be shared with other local industries for replication.</p>
<p><b>6/ There is a risk that introduction of BAT incentive delayed/BAT incentives are not legally introduced</b></p>	<p>BAT incentives are adopted and implemented</p>	<p>7. STRATEGIC (7.5. Government commitment) - UNDP Risk Appetite: OPEN TO SEEKING</p>	<p>Likelihood: 3 - Moderately likely</p> <p>Impact: 4 - Extensive</p> <p>Risk level: SUBSTANTIAL (equates to a risk appetite of OPEN)</p>	<p>MEPA jointly with project team, composed of UNDP and UNECE experts will carry out broad consultations with both key decision-makers and industry representatives on potential benefits of the incentives as well as on challenges, using various mechanisms, including a Parliamentary Committees on Environment and Economy. Moreover, it will have face-to-face bilateral meetings with key Ministries to advocate for the adoption of BAT incentives.</p>
<p><b>7/ There is a risk that private sector is not aware/acceptive of BAT incentives introduced and do not use them</b></p>	<p>Private sector is aware of BAT incentives and supports their application</p>	<p>4. ORGANIZATIONAL (4.6. Knowledge management) - UNDP Risk Appetite: EXPLORATORY TO OPEN</p>	<p>Likelihood: 4 - Highly likely</p> <p>Impact: 4 - Extensive</p> <p>Risk level: SUBSTANTIAL (equates to a risk appetite of OPEN)</p>	<p>MEPA jointly with project team, composed of UNDP and UNECE experts and in cooperation with MEPA and MoESD will conduct knowledge and capacity building activities for industries as well as will engage them in a dialogue/consultations on BAT incentives</p>
<p><b>8/ There is a risk that stakeholder engagement is weak</b></p>	<p>Stakeholders actively engage in the project</p>	<p>3. OPERATIONAL (3.8. Capacities of the partners) - UNDP Risk Appetite: EXPLORATORY TO OPEN</p>	<p>Likelihood: 3 - Moderately likely</p> <p>Impact: 3 - Intermediate</p> <p>Risk level: MODERATE (equates to a risk appetite of EXPLORATORY)</p>	<p>Project Board (PB) composed of all project partners and key government counterparts will coordinate work with multiple government, non-government and private sector representations, through facilitating a multi-stakeholder dialogue and consultations and will support public-private partnerships, multi-stakeholder coordination, lead multi-stakeholder dialogue and consultations; Following stakeholder engagement means and platforms will be used: PB meetings, vis-à-vis and multi-stakeholder meetings, parliamentary committee hearings, etc.</p>

### 3.5 Stakeholder Engagement

Principal stakeholders and beneficiaries of the Project will be the MEPA and its relevant units engaged in AQ management (i.e. AQ monitoring and assessment, regulation of industrial emissions), MoESD, NCDC, MoF, MoFEA, local municipalities, environmental NGOs, industries and the most importantly, a general public as a recipient of improved AQ and AQ health related information. Moreover, key decision-making authorities and in particular, MEPA will be offered to participate in the Project Board which apart from steering the project will serve as project assurance, risk monitoring and management and grievance redress mechanism. Representatives of parallel similar projects including EU EPFACC, Sida Save the Nature, UNDP/GCS/SDC/Sida project, etc. will be also invited from time to time to participate in extended PB meetings.

Other ways for stakeholder engagement, except for participation in PB meetings will be:

- Establishment of Ad-hoc technical task groups around key topics (AQ monitoring, modelling and forecasting, data quality management, regulation of industrial emissions, etc.), with participation of all EU-funded projects addressing AQ issues and MEPA as well as specialists from other stakeholders and/or donor-funded initiatives
- vis-à-vis meetings, both virtual/on-line and face-to-face,
- multi-stakeholder consultations,
- workshops, trainings,
- soliciting expert's opinion, including third opinion on various technical and policy issues,
- advocacy and awareness campaigns, for which NGO and media resources will be used at the extent possible.
- Parliamentary committee hearings. Sectoral Parliamentary Committees will be used for committee hearings and advocating and lobbying for adoption of industry incentives for application of BATs, GESI and EH tools. Moreover, for GESI the structure and resources of the permanent parliamentary body of Gender Equality Council will be utilized.

Below is given a matrix of key stakeholders and their potential role in the project.

**Table 3. Stakeholder engagement matrix**

#	Organization	Unit within the organization/person	Potential role in the project	Responsible person
1	Parliament of Georgia	Gender Equality Council	Promotion and oversight of implementation of gender equality and social inclusion framework and toolkit, including checklist in AQ through thematic enquiry and parliamentary consultations	Ms. Nino Tsilosani, chairperson
		Environmental Protection and Natural Resources Committee	Committee hearings on BAT incentives and lobbying their adoption; promotion and oversight of application of gender equality and social inclusion framework and toolkit in AQ	Ms. Maia Bitadze, chairperson
		Sector Economy and Economic Policy Committee	Promotion of adoption of BAT incentives among Ministries and industries, facilitation government industry dialogue on BAT, legal and fiscal barriers and possible incentives; lobbying of adoption of BAT incentives	Ms. Nino Tsilosani, chairperson
		Health Care and Social Issues Committee	Promotion and oversight of implementation of environmental health related equality and social inclusion tools	Mr. Zaza Lominadze, chairperson
2	MEPA	First Deputy Ministry	Chairing the Project Boards, coordinating high-level government consultations and agreements on key decisions; facilitating adoption of regulations and amendments to existing legislation on BAT implementation	Ms. Nino Tandilashvili <a href="mailto:Nino.Tandilashvili@mepa.gov.ge">Nino.Tandilashvili@mepa.gov.ge</a>

#	Organization	Unit within the organization/person	Potential role in the project	Responsible person
		Ambient Air Division under the Department of Environment and Climate Change	Leading multi-stakeholder dialogue, coordinating activities with MEPA's other units and agencies as well as inter-ministerial and donor cooperation, participating in Project Board, reviewing and providing feedback on project deliverables/reports, participating in advocacy and awareness campaigns	Mr. Noe Megrelashvili, Head <a href="mailto:Noe.Megrelashvili@mepa.gov.ge">Noe.Megrelashvili@mepa.gov.ge</a> +995 595 119 735
3	Environmental Information and Education Centre/MEPA		Training, awareness and advocacy campaigns, information dissemination on AQ, gender equality and social inclusion in AQ, regulation of industrial emissions	Ms. Tamar Aladashvili, Head/Director <a href="mailto:Tamar.aladashvuku@ieec.gov.ge">Tamar.aladashvuku@ieec.gov.ge</a> +995 593 122 428
4.	The State Sub-Agency Department of Environmental Supervision/MEPA	Industrial Emissions and Wastes Control Service	Participation in activities related to regulation of industrial emissions: trainings, study tour, data and information provisions	Ms. Nino Chanturishvili, Head <a href="mailto:n.chantura@gmail.com">n.chantura@gmail.com</a> +995 577 053 323
5	NEA/MEPA	Department of Environmental Pollution Monitoring, with its laboratories and Ambient Air Quality Monitoring and Technical Maintenance Division	Support procurement, installation, O/M of AQ monitoring, analytical and calibration equipment; calibration of measurements and validation of data; running of AQ model and forecasting tool; trainings in AQ monitoring, data inter-comparison, calibration, etc; establishment of NRL and its capacity building	Mr. Vasil Gedevanishvili, Head Of the NEA <a href="mailto:vasogedevanishvili@gmail.com">vasogedevanishvili@gmail.com</a>  Ms. Marina Arabidze, Head of the Department <a href="mailto:arabidzearabidze@gmail.com">arabidzearabidze@gmail.com</a>
		Department of Hydrometeorology	Cooperation with the Department of Environmental Pollution on coupling meteorological and AQ prediction models	Mr. Ramaz Chitanava, Head <a href="mailto:ramazchitanava@gmail.com">ramazchitanava@gmail.com</a>
		Department of Environmental Impact Assessment	Regulation of industrial emissions: preparation of BAT regulations and facilitation/coordination of its adoption, selection of BAT pilot and monitoring of its implementation, communications with industries and their mobilization, participation in trainings and a study tour	Ms. Venera (Vika) Metreveli, Head <a href="mailto:Venera.Metreveli@Mepa.gov.ge">Venera.Metreveli@Mepa.gov.ge</a>
6	Ministry of Economy and Sustainable Development of Georgia (MoESD)	Economic Policy Department	Promotion of adoption and implementation of BAT economic incentives	Ms. Tsinami Sabadze, Head E-mail: <a href="mailto:tsinami@moesd.gov.ge">tsinami@moesd.gov.ge</a> +(995 32) 299 10 65
		Economic Analysis and Reforms Department	Promotion of adoption and implementation of BAT economic incentives	Ms. Ketevan Chapidze, Head E-mail: <a href="mailto:kchapidze@moesd.gov.ge">kchapidze@moesd.gov.ge</a> +(995 32) 299 10 42
		Georgian National Agency for Standards, Technical Regulation and Metrology/MoESD	Participation in NRL related activities, laboratory accreditation and certification; metrological standards setting.	Mr. David Tkemaladze, General Director <a href="mailto:d.tkemaladze@geostm.ge">d.tkemaladze@geostm.ge</a> +995 32 2613500
7	Ministry of Internally Displace Persons from Occupied Territories of Georgia, Health and Social Affairs	National centre for Disease Control (NCDC)	Participation in GESI and environmental health related activities: trainings, assessments, promotion of GESI and environmental health tools among stakeholder	Nana Gabriadze, Head of the Department of Environmental Health <a href="mailto:n.gabriadze@ncdc.ge">n.gabriadze@ncdc.ge</a> +995 595 455 497 Robizon Tsiklauri, Head of Division <a href="mailto:robizont@yahoo.com">robizont@yahoo.com</a> +995 599 165 606 <a href="mailto:info@ncdc.gov.ge">info@ncdc.gov.ge</a>

#	Organization	Unit within the organization/person	Potential role in the project	Responsible person
8	Ministry of Finance and Economy of Adjara A/R	Department of Economic Development	Promotion of BAT application among industries; Promotion of BAT incentives; coordination of government-industry dialogue on BATs and BAT incentives	Ms. Ekaterine Bakhtadze, Head <a href="mailto:Eka_bakh@yahoo.com">Eka_bakh@yahoo.com</a> +995 577 906 067
9	Local municipalities	Relevant structural departments	Participation in awareness seminars and training on application of gender, environmental health in AQ management	TBD
10	CENN, local NGO	Economy and Green Growth	Participation in multi-stakeholder consultations, forums, provision of experts opinions, advocacy and awareness campaigns	Ms. Nino Shavgulidze, Deputy Director <a href="mailto:Nino.shavgulidze@cenn.org">Nino.shavgulidze@cenn.org</a> +995 577 742 219
11	The Greens Movement of Georgia/Friends of the Earth- Georgia, local NGO		Participation in multi-stakeholder consultations, forums, provision of experts opinions, advocacy and awareness campaigns	Ms. Nino Chkhobadze, Chair <a href="mailto:Nino.chobadze@gmail.com">Nino.chobadze@gmail.com</a> +995 599 514 071
12	Regional Environmental Centre of Caucasus (RECC), local NGO		Participation in multi-stakeholder consultations, forums, provision of experts opinions, advocacy and awareness campaigns	Ms. Sophie Akhobadze, Executive Director <a href="mailto:Sophiko.akhobadze@rec-caucasus.org">Sophiko.akhobadze@rec-caucasus.org</a> +995 577 797 759
13	Georgian Environmental Outlook (GEO), local NGO		Participation in multi-stakeholder consultations, forums, provision of experts opinions, advocacy and awareness campaigns	Ms. Khatuna Gogaladze, Founder/Program Manager <a href="mailto:Khatuna.gogaladze@geo.org.ge">Khatuna.gogaladze@geo.org.ge</a> +995 599 292 816
14	Green Alternative, local NGO		Participation in multi-stakeholder consultations, forums, provision of experts opinions, advocacy and awareness campaigns	Ms. Manana Kochladze, Chairwoman <a href="mailto:manana@bankwatch.org">manana@bankwatch.org</a>
15	Green Pole, local NGO		Participation in multi-stakeholder consultations, forums, advocacy through community/civil monitoring of AQ and awareness campaigns	Mr. Giorgi Japaridze, co-founder/board member, <a href="mailto:greenpoleorg@gmail.com">greenpoleorg@gmail.com</a>
16	EU Technical Assistance Project: Environmental Protection and Fighting against Climate Change (EPFACC)		Participation in multi-stakeholder consultations, forums, provision of experts opinions, data and information exchange on AQ (AQ management, including AQ monitoring and assessment and establishment of NRL, and regulation of industrial emissions)	Mr. Rob Bax <a href="mailto:bakxrc@hotmail.com">bakxrc@hotmail.com</a>
17	EU Green and Health complementary project; Slovak and Spanish Consortium	Slovak Environmental Institute, Department of Emissions Monitoring and AQ monitoring	Cooperation on AQ modelling	Mr. martin.kremler@shmu.sk,
18	Sida/MEPA Save the Nature Project	Component on AQ planning and monitoring improvement	Cooperation on AQ monitoring	Ms. Khatuna Zaldastanishvili, Programme Officer, Embassy of Sweden/Sida <a href="mailto:khatuna.zaldastanishvili@gov.se">khatuna.zaldastanishvili@gov.se</a> Mr. Noe Megrelishvili, Head of the AAD, MEPA
19	Sida/UNDP Governance Reform Fund		Participation in multi-stakeholder consultations, forums, provision of experts opinions, data and information exchange on AQ monitoring, modelling and forecasting	Ms. Salome Odisharia, Project Manager <a href="mailto:salome.odisharia@undp.org">salome.odisharia@undp.org</a>
20	UNDP/GCF/SDC/Sida programme	• UNDP/GCF component-	Participation in AQ modelling and forecasting-related activities and more	Ms. Ketevan Skhireli, GCF-funded Project Manager



#	Organization	Unit within the organization/person	Potential role in the project	Responsible person
	Reducing the Risk of Climate-Driven Disasters in Georgia	<p>project: Scaling-up Multi-Hazard Early Warning and the Use of Climate Information in Georgia under</p> <ul style="list-style-type: none"> <li>• UNDP/SDC component-project: Strengthening the Climate Adaptation Capacities in Georgia</li> </ul>	specifically, coupling of meteorological AQ models	<a href="mailto:ketevan.skhireli@undp.org">ketevan.skhireli@undp.org</a> Ms. Salome Lomadze, SDC-funded Project Manager <a href="mailto:salome.lomadze@undp.org">salome.lomadze@undp.org</a>
21	UNDP/MLF HCFC Total Phase-Out Management Plan – Stage 2	<ul style="list-style-type: none"> <li>• Demonstration projects component</li> </ul>	Participation in activities related to regulation and control of industrial emissions, based on ELVs and BAT, in particular participation in pilot BAT application	Ms. Lali Tevzadze, Project Manager <a href="mailto:lali.tevzadze@undp.org">lali.tevzadze@undp.org</a> +995 557 736 919
22	Local industries		Participation in activities related to regulation of industrial emissions: BAT consultations, trainings, pilot BAT project, etc.	TBD (exact facilities TBD during project implementation)
23	Media representatives (Georgian Public Broadcasting, Euronews, Imedi TV, etc.)		Awareness and advocacy campaigns	TBD (exact media broadcasters will be identified during project implementation)
24	Non-communicable Diseases Alliance in Georgia		Cooperation with NCDC and participation in multi-stakeholder dialogue, participation in advocacy and awareness campaigns	Simon Gabritchidze <a href="mailto:gabritchidze@gmail.com">gabritchidze@gmail.com</a> <a href="mailto:ncd2017georgia@gmail.com">ncd2017georgia@gmail.com</a> +995 558 667 521

### 3.7 South-South and Triangle Cooperation

Under the Project, UNDP and its partners – UNECE, WHO and UBA will acquaint Georgian stakeholders, including decision-makers, industries and civil society organizations with policies, approaches and tools applied by European countries, with a focus on new EU member states and candidate EU countries – having similar to Georgia near past challenges – in AQ monitoring, modelling, forecasting, data calibration, data intercomparison and traceability as well as in application of BAT by industries with similar profiles as Georgian industries. Lessons learned by these countries will be also brought to attention of Georgian stakeholders to discuss their pros and cons, compare to Georgian situation and draw relevant conclusions for further actions. Moreover, a study tour will be organized in one of the EU new member states/candidate countries with similar to Georgian industry profiles and near-past development trends. This will strengthen THE South-South and Triangular Cooperation under the Project. The Project through UBA, which is a member of AQUILA – a network/science hub of National Reference Laboratories of EU, EFTA<sup>47</sup> and EU candidate member states – also intends to facilitate cooperation of NEA and/or the Laboratory to be designated as NRF with this network. Other experts’ platforms and community of practice fora which will be also explored and utilized at the extent as possible are FAIRMODE - EU JRC - platform for European national experts on modelling and CMAQ User Community – an open-source web-based platform of USAID SMAQ user community<sup>48</sup>.

### 3.8. Digital Solutions<sup>56</sup>

The Project under the output 1, among other things will look at the improvement of data quality management, through providing data validation as well as data management/servicing software. Moreover, for improved AQ assessment and projections, it will study, select and adjust/adapt to NEA’s needs the AQ modelling and forecasting tools available widely and downloadable for free/at low cost (e.g. USEPA CMAQ). Under the Project, training modules developed will be mostly in electronic format and will be posted on the web-sites of respective agencies (e.g. EIEC, NCDC, NEA, etc.). In addition, a self-paced e-learning course will also be developed that will be made available on an existing and well-established online e-learning platform <https://unccelearn.org/>. Finally, the Project together with face-to-face/classroom meetings and trainings will apply on-line modes and apps (e.g. Zoom, Microsoft Team, Sisco, etc.) where it is appropriate. Moreover, for document and data flow, virtual/cloud services will be used at the extent possible.

### 3.9 Knowledge

Under the Project, two feasibility studies – one on potential BAT application and another on BAT incentives – will be developed which will be shared and discussed with representatives of respective sectoral parliamentary committees, key Ministries and industries. The pilot BAT project among other things will serve as a “learning by doing tool” for local industries; its findings will be recorded and lessons learned generated shared and discussed with decision-makers and industry representatives. Electronic forms of the reports will be posted at UNDP, MEPA and UNECE’s web-sites and will be accessible for all interested parties.

The Project will develop/adapt GESI and EH tools and assist local stakeholders, including central, regional authorities and local authorities (MEPA, MoESD, NCDC, MoFEA, local municipalities, etc.) in their application, through trainings and carrying out pilot assessments at means of “learning by doing”. Furthermore, the Project will assist the NEA in acquiring, adapting and applying AQ modelling and forecasting tools, available online for free/at low cost.

NEA and the laboratory that will be selected to act as a NRL (if different from NEA), will be assisted in developing and adopting various SOPs, data collection, storage inter-comparison and calibrations protocols, and reporting formats which will strengthen the knowledge and capacities of targeted agencies. In addition, the NRL will be supported to get an international accreditation and certification, and to cooperate with European AQ reference laboratories, while NEA’s respective departments and units will be supported to cooperate with EU AQ modelling experts through existing science forums/platforms.

Under each output it is envisaged to carry out extensive knowledge and capacity building activities of targeted stakeholders in such areas as: AQ monitoring and assessment, data management, data validation, calibration and

<sup>47</sup> European Free Trade Association

<sup>48</sup> <https://www.epa.gov/cmaq/cmaq-user-community>

intercomparison, regulation and control of industrial emissions and BAT application, application of GESI and EHA tools. Capacity and knowledge building means will include, but not limited to:

- on-line, class-room and on-the-job training of relevant stakeholders on the topics of relevance for project outputs;
- Coaching of NEA's staff in proper O/M and calibration of AQ monitoring equipment, data validation and management software, and AQ modelling and forecasting tools;
- Coaching the staff of the Laboratory to be designated as NRL in proper O/M of analytical and calibration equipment and QA/QC;
- A study tour of decision-makers and industry representatives to selected European country(ies) to learn practices and approaches of BAT application and regulation and control of industrial emissions;
- Development of training modules, and a self-paced online course on industrial emissions
- Development of outreach products and their distribution through media.

The project will undergo a final evaluation, which will include chapters on lessons learned and will be posted at UNDP web-site.

### 3.10 Sustainability and Scaling Up

Government ownership and multi-stakeholder coordination. Key government representatives will sit in the Project Board (PB) which among other things, will serve a good platform for government and multi-stakeholder coordination. Furthermore, UNDP will sign a letter of agreement with NEA, to be a responsible party for AQ monitoring, modelling and forecasting as well as for data calibration and intercomparison related activities. NEA will commit to allocate a proper staff and finances of annual O/M of monitoring, analytical and calibration hard equipment, and AQ data management, validation, modelling and forecasting software and this commitment will be monitored and reviewed periodically by project team.

The project will effectively use existing parliamentary councils (e.g. standing gender equality council) and sectoral committees, and an inter-ministerial council on AQ for hearings and cross-agency and the government-private sector discussions of AQ management issues, including BAT topics. Moreover, it will establish close links with all ongoing projects with similar activities (e.g. EU EPFACC, UNDP/GCF/SDC/Sida project, Sida Save the Nature project, etc.) and will exchange data, information and experience gained with them for better coordination, synergies and alliance with national and EU AQ policies (e.g. national AQ monitoring road map, CAFE directive and directive on industrial emissions, etc.).

All above measures will ensure strong government engagement in project activities and ownership, better alignment with national policies and management systems as well as effective inter-agency and donor cooperation.

National and local capacities. The Project will support strengthening Georgia's capacities at system, institutional and staff-level in the area of AQ management, with a focus on AQ monitoring and forecasting, and regulation of industrial emissions. More specifically, the project will implement a blend of capacity development activities at all levels, including:

- Review, revision and facilitation of adoption of several BAT-based regulations (system-level capacity development intervention)
- Development of a package of BAT incentives and facilitation of the process of their adoption, through advocacy, lobbying and supporting a government-industry dialogue (system-level capacity development intervention);
- Provision of assistance to GoG in enhancing AQ monitoring and forecasting capacities of NEA to meet minimum criteria for EU CAFE directive and the requirements of National AQ monitoring Road Map, through improving AQ monitoring network and tools for data quality management and AQ assessment as well as through upgrading skills and qualifications of relevant staff and networking with international AQ monitoring, modelling and forecasting community of practice platforms to solicit experts' advice even after the completion of the Action (institutional- and staff-level capacity development intervention);
- Provision of assistance to GoG in establishing and developing data traceability, intercomparison and calibration capacities, through creating relevant testing and calibration infrastructure for NRL, supporting the laboratory designated as NRL in proper O/M of equipment, QA/QC, accreditation, certification and networking with AQUILA to search for expert's advice even after the completion of the Action (institutional- and staff-level capacity development intervention);
- Building knowledge and capacities of key stakeholders, including decision-makers in AQ health risks and risk communications;

- Developing training modules (e.g. electronic modules, a self-paced course) and technical methodological documents (e.g. protocols and procedures, etc.) and based on these learning materials, conveying on-the-job, class-room and on-line training sessions for representatives of (institutional- and staff-level capacity development intervention):
  - NEA in O/M and calibration of a new AQ continuous monitoring equipment and, calibration and running of AQ modelling, forecasting and data quality management software;
  - A laboratory designated as NRL in O/M of analytical and calibration equipment, data intercomparison, SOPs, ISO standards, etc.
  - AAD, Environmental Supervision Department/environmental inspectorates and Environmental Assessment Department in regulation and control of industrial emissions based on ELVs and BATs
  - Industries on BAT and its application.
  - AAD, NEA, NCDC, MoESD and local municipalities in application of GESI and EHA tools, AQ health risk communication.

All the knowledge and capacity created under the project will aid the GoG to make informed decision and better protect surrounding environment and population health, contributing to sustainable development of the country.

Environmental and social sustainability. Concerning environmental and social sustainability, the project will strengthen national capacities at system, institutional and staff-level that will ensure better management of AQ, including AQ monitoring, modelling and forecasting, AQ data management and regulation of industrial emissions ultimately leading to the improvement of ambient AQ and population health.

The Action will take into consideration green/sustainable procurement principles and will integrate environmental sustainability criteria in selection criteria (e.g. energy efficiency, recyclability, durability, content of hazardous materials) of goods to be purchased. For operations of AQ monitoring stations, NEA as a responsible party for AQ monitoring network will look for opportunities for alternative energy sources and in particular, solar energy, given there is already such experience with NEA and other government agencies to operate field equipment as well as will take into consideration various climate-induced natural hazards (e.g. floods, landslides, mudflows, strong winds, etc.) while selecting locations for equipment installation.

Regarding potential negative environmental and social impacts of the project activities they are associated with following risks:

- environmental pollution due to environmentally unsustainable/unfriendly design of equipment acquired and/or accidental industrial releases
- occupational health and safety risks (injuries, etc.) caused by improper installation, operations and maintenance of AQ field measurement, analytical and calibration equipment as well as industrial facility equipment necessary for BAT, and non-adherence of equipment operators to basic occupational Health, Safety and Environmental (HSE) standards (e.g. using personal protection equipment, maintaining proper physical conditions for the equipment, early detection of faults and timely repair/replace of damaged/broken parts, properly storing consumables and auxiliary parts)
- Climate induced natural hazards Absence of contingency (preparedness and response) plans) at targeted agencies and industries and poor capacities to properly respond to accidents.

Given the size and number of monitoring equipment, potential environmental and health risks range from low to medium in terms of probability and the level (including geographic scale) of their impacts. Meanwhile, risks related to implementation of pilot BAT activity may range from medium to high, depending on the size and capacity of the facility. Therefore, at project design phase detailed risk ranking can't be performed.

Above risks will be regularly monitored and their ranking adjusted. If new risks emerge, they will be recorded in the Project Risk Log, monitored, management responses will be developed and implemented.

In general, environmental and social risks of the project listed above will be managed through proper O/M of equipment, adherence of equipment operators to occupational health and HSE standards, development and preparedness and response (contingency plans) for emergency situations, including industrial accidents and natural calamities.

Scaling up potential. In terms of scaling up potential, the Project will enhance knowledge and skills of industries and in particular, pilot industrial facilities in application of BAT. The Project will also conduct advocacy and information campaigns that will serve a good basis for expansion of BAT application among industries. Moreover, the Project will offer a menu of BAT incentives to the GoG and industries and advocate for their adoption. If adopted these incentives

will further foster wider application of BAT by industries. For potential collaboration and scaling up of BAT retrofitting pilot, the following ongoing initiatives can be considered:

- UNDP/MLF HPMP-II that provides financial incentives and TA to Refrigeration and Air Conditioning industries in retrofitting their equipment
- the EU4Business Initiative that offers incentive grants and concessional loans for private sector for the acquisition and installation of energy efficient and innovative technologies not yet widely available locally.

In addition, cooperation with the European Investment Bank (EIB) can be sought for their possible uptake of the feasibility study and cost estimate for the retrofitting of other plants.

### 3.11 Gender mainstreaming

The Project intends to implement a set of activities to enhance knowledge and implementation capacities of key stakeholders in AQ monitoring and assessment, including gender-responsive AQ health assessment, and regulation of industrial emissions. This will ultimately contribute to the improved public health of Georgia. The project will benefit entire Georgian population and in particular, people living in densely populated and heavily polluted urban areas. Of these people, disadvantaged groups: people with poor health conditions, elderly, children and the pregnant women are the most vulnerable to ambient air pollution. Epidemiological studies strongly indicate that short-term acute and long-term chronic exposure to air pollutants lead to such diseases as a stroke, ischemic health diseases, chronic obstructive pulmonary diseases, pneumonia, and lung cancer. Moreover, maternal exposure to air pollutants is strongly correlated with aggravation of reproductive health, including low birth weight, stillbirth and small for gestational age births. According to WHO, a growing body of evidence also suggests that air pollution may affect diabetes and neurological development in children.

Keeping in mind a strong link between air pollution and gender aspects of environmental health, as well as existing challenges related to gender mainstreaming in environmental protection in general and AQ management in particular (absent gender equality framework and a tools, including a checklist in AQ management, poor/absent knowledge and implementation capacities in gender equality/mainstreaming and in assessing AQ health an related gender aspects, a separate project output/key result (output 2) with associated two activities is dedicated to gender equality and social inclusion in AQ management. Under it, GESI and EH frameworks and practical tools, including checklist will be developed/adapted, that will be followed by building knowledge and implementation capacities of central and local authorities as well as other stakeholders (e.g. environmental and health NGOs, etc.) in practical application of these tools. This will serve as effective means for gender and social mainstreaming in AQ and environmental health management processes after the project completion.

Concerning gender balance, equal and meaningful participation of women in all project activities, including PB meetings, awareness seminars, workshops, training sessions, stakeholder consultations and awareness and advocacy campaigns will be encouraged, monitored and reported as part of key indicators and targets of the logical framework/results and resources framework.

In general, following gender mainstreaming tools will be applied by the Project:

- gender-responsive capacity building – attention will be paid to the engagement of women experts in developing training/educational materials, serve as trainers and/or participate in trainings.
- gender responsive awareness raising and knowledge management – equal access to information by women and men including those from disadvantaged groups (e.g. elderly, pregnant women, people with disabilities, etc.) will be ensured, through providing equal access to training and awareness material including through online means. Furthermore, awareness campaigns will equally target both sexes to multiply the effect.
- documents developed under the project will be gender responsible at the maximum level possible, through incorporating gender and social inclusion aspects in technical reports (e.g. feasibility studies on BAT and BAT incentive studies), and training and awareness raising materials
- gender responsive human resources management – efforts will be made to encourage women to apply and keep a track of the number and percentage of male and female consultants/experts/technical assistants recruited through the project.

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## IV. PROJECT MANAGEMENT

### 4.1 Cost Efficiency and Effectiveness

A National Implementation Modality (NIM) with UNDP Georgia Country Office support will be applied for implementation of the Project that will safeguard the most effective and efficient allocation and spending of EU, UNDP and partners' resources as well as will ensure the mobilization of additional (in-kind) government resources (staff time, office and meeting facilities and expertise). Moreover, the engagement of government agencies (e.g. NEA) as responsible parties for installation and running of AQ monitoring, laboratory testing and calibration equipment, and AQ assessment tools will significantly reduce transaction and overhead costs of these most cost-intensive activities of the Project due to the utilization of cheaper in-house government expertise in lieu of international expertise. Operational costs of the equipment and software will be covered by responsible government entities as part of their obligations under NIM and signed Letter of Agreement(s).

Furthermore, before acquisition of required hardware and software, feasibility studies, including market analysis of products/goods to be procured will be carried out, and the availability of cost-effective/no cost solutions will be identified. During the procurement, a value for money and cost-effectiveness principle will be followed. For AQ modelling and forecasting tools the priority will be given to easily operable open source solutions.

Taking into mind that UNDP will partner with UN agencies – WHO and UNECE and one of the EU member state agencies – UBA, with all of them having well-established programme and operational structures, international standard-based management and financial rules, procedures and internal control, UNDP will keep the management team as small as possible and will limit it with only national Project Manager and Financial and Administrative Associate. International Team Leader/Chief Technical Advisor will not be employed by UNDP, fully relying on managerial and technical capacities and expertise of project partners, who will provide key experts in AQ monitoring, forecasting (UBA), gender and social mainstreaming (WHO and UNECE) and industrial emissions (UNECE). Thus, this will significantly reduce the project management costs and keep it to the minimum level.

UNDP will provide co-financing for implementation of the Project.

The Project team in conjunction with project implementing partner MEPA will seek partnership arrangements with other ongoing donor projects (e.g. EU EPFACC, Sida Save the Nature, UNDP/MLF HPMP-II, EIB, etc.) to better plan and implement complementary activities or even jointly implement certain activities. Moreover, the Project will attract financial resources from industries to implement a BAT pilot project(s) as well as will assist other interested industries in getting access to existing funding mechanisms in support of industries and in particular, SMEs.

### 4.2 Project Management

The project office will be based in Tbilisi Georgia, with no regional/local offices to be opened in any of regions of Georgia. Project will start with the inception phase and Inception Workshop will be held within the first 3 months. Inception phase will be used to recruit project team, review project baseline as well as project work and timeline, conduct additional consultations with stakeholders and partners to confirm the proposed strategy and make any adjustments, as necessary.

UNDP will allocate team of professional staff who will be directly involved in the implementation, monitoring and evaluation of the Project. The team will consist of the Country Office Staff and the project management unit.

Project management unit will be composed as follows:

- **Project Manager, NPSA 10 (100%):** will provide administrative oversight and internal controls, coordination and supervision of institutional relations with concerned government institutions, representation of the project in relevant events, communication and reporting to the EU Delegation. The Manager will be responsible to ensure that project implementation is in line with the conditions set forth through the EU-UNDP agreement, and all UNDP rules and regulations are respected throughout project implementation.
- **Project Admin/Finance Associate, NPSA 6 (100%):** Project Admin/Finance Associate will be responsible for technical support in financial, contractual, and organizational matters.

Country Office Staff will be composed as follows:

- **UNDP CO Energy and Environment Team Leader, NOC, (15%):** UNDP CO EE Team Leader will provide overall quality assurance, oversight and monitoring of the project to ensure that the project produces the results



(outputs) specified in the project document and compliant with the required standard of quality and within the specified constraints of time and cost. The Team Leader will provide liaison support with counterparts as needed, oversee reporting (both for the EU delegation and internal UNDP reporting), provide additional analysis of risks and mitigation measures, ensure coherence and promote cooperation between this project and other relevant UNDP projects. Team Leader will be charged through direct project costs for the time spent directly attributable to the implementation of the Project, not exceeding 15% of the working time.

- **UNDP CO Programme Associate (10%):** UNDP CO EE Programme Associate will be responsible for providing administrative support and advice supporting project implementation from the Country Office. S/he will be responsible for providing administrative, contractual and reporting related support to ensure compliance of administrative processes with respective UNDP rules and regulations not exceeding 10% of the working time.
- **UNDP CO Communications Analyst (5%):** UNDP CO Communication Analyst will be responsible to provide advice on all communications-related matters and support the project in the implementation of its communication and visibility activities. S/he also will liaise directly with the communications team of the EU Delegation to Georgia. UNDP Communications Specialist will complete monthly timesheets reflecting actual time spent on the given project (5 percent of the time).
- **UNDP CO Monitoring and Evaluation Specialist (5%):** UNDP CO Monitoring and Evaluation Specialist will be responsible to track, monitor and evaluate project implementation progress based on logical framework as well as work plans; Report to the Project Management on the results of the monitoring and evaluation; (up to 5 percent of the time).

UNDP CO staff will provide quality assurance for smooth implementation for achieving the set results. Country Office staff (EE Team Leader 15%, Programme Associate 10%, Communications Analyst 5% and Monitoring and Evaluation Officer 5%), will dedicate part of their time to this project throughout its duration, will keep the accurate record of the time dedicated to the project (timesheet), verified/approved by their supervisors on a monthly basis, and the project will be charged according to the actual time worked for the project, up to the maximum of the percentages specified in the project budget.

#### **Project Office Costs**

UNDP will convey the administrative support services to the project implementation, implying undertaking administrative, financial, procurement and recruitment services according to its rules and regulations. Below listed project office costs will be allocated for operational support for the implementation of the Project from the Project Budget.

- **Local transportation:** rental of vehicle and/or purchase of fuel for the UNDP vehicle providing transportation services to the trainings/seminar/events for the staff assigned to the Project.
- **Local DSA:** per diem for project staff, assigned to the Project, for travel to regions within Georgia while organizing or attending events, trainings, etc., outside Tbilisi.
- **Equipment and supplies:** 3 laptops, 3 desktops, 3 docking stations, 1 printers and other respective supply/maintenance expenses of IT equipment.
- **Office Rent:** Rent will be cost-shared with other UNDP EE portfolio projects on a percentage basis: around 25% of the costs for joint projects' office.
- **Consumables - office supplies:** costs from the budget line will cover following costs - stationery, telecommunication and other monthly costs for the project office.
- **Other services (waste separation and utilization, tel/fax, electricity/heating, maintenance):** costs for waste separation and utilisation, communication, utilities, shared with other UNDP Projects under joint office premises.
- **Office cleaning services:** cleaner will be responsible for cleaning of the office premises, including washing, sweeping, dusting, vacuum-cleaning and polishing of the project office premises.
- **Printing and production:** printing of project related visibility items, preparation of infographics and or production of relevant video material for the Project.
- **Evaluation costs** – International evaluators consultancy fee and travel expenses.
- **Translation, interpreters** – Translation of project related documentation and provision of translation services during meetings, workshops and other events.
- **Cost of Project Board and other meetings** – rent of conference room, catering, IT support and other costs related to organization of Project Board Meetings.
- **Visibility Actions:** Organization of campaigns, creation, posting, airing and/or boosting of project related media posts.

## VI. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans

### Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action
<b>Track results progress</b>	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Annually, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.
<b>Monitor and Manage Risk</b>	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Annually	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.
<b>Learn</b>	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.
<b>Annual Project Quality Assurance</b>	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Bi-Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.
<b>Review and Make Course Corrections</b>	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.
<b>Project Report</b>	A progress report will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk log with mitigation measures, and any evaluation or review reports prepared over the period.	Annually, and at the end of the project (final report)	Progress reports will be prepared and discussed at the Project Board
<b>Project Review</b>	The PB will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall	At least annually and at the end of the project	Any quality concerns or slower than expected progress should be discussed by the project board

Monitoring Activity	Purpose	Frequency	Expected Action
	hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.		and management actions agreed to address the issues identified.

**Evaluation Plan**

Evaluation Title	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Final Evaluation	End of the project	Project implementing partners, MEPA and other PB member and non-member Ministries; Sectoral Parliamentary Committees and Standing Parliamentary Council on Gender Equality; industries, in particular beneficiary industries, environmental NGOs, participating/collaborating donor projects	15,000 EUR/Project budget

## V. MULTI-YEAR WORK PLAN AND TIME SCHEDULE

EU Budget for the Action Costs	All Years				Total Cost (in USD), EU funding	Yearly Breakdown				UNDP Cash Co- funding (in USD)
	Quantum Activity	Imp. Partner	Funding Source	Account		2024	2025	2026	2027	
<b>Output 1. National capacities, infrastructure and tools enhanced in AQ monitoring, modelling, forecasting and data quality management</b>					<b>2,952,736.84</b>	<b>225,473.33</b>	<b>1,998,536.80</b>	<b>628,726.71</b>	<b>100,000.00</b>	<b>29,057.02</b>
<i>Activity 1.1 – Improve Ambient AQ monitoring network</i>										
1.1.1 - Consultancy service on O/M and calibration of AQ monitoring equipment	Activity1.1	UNDP	EU	72100	54,891.45	21,601.29	33,290.15			
1.1.2 - Procurement, installation and commissioning of AQ monitoring equipment	Activity1.1	UNDP	EU	72100	2,001,019.74	23,802.15	1,500,000.00	477,217.59		
1.1.3 - Trainings	Output TRAC	UNDP	UNDP	75700		0.00				4,934.21
<i>Activity 1.2 Introduce national AQ modelling and forecasting tools at NEA and enhance the staff capacities in their application</i>						0.00				
1.2.1 - Consultancy service on AQ modelling an forecasting and EH tools	Activity1.2	UNDP	EU	72100	54,879.39	21,596.55	33,282.84			
	Activity1.2	UNDP	EU	72100	82,236.84	40,453.07	41,783.77			
1.2.2 - Procurement of data validation and data management software	Activity1.2	UNDP	EU	72800	46,052.63	46,052.63				
1.2.3 Trainings	Output TRAC	UNDP	UNDP	75700		0.00				6,578.95
<i>Activity 1.3 - Support to establishment and effective operations of NRL</i>						0.00				
1.3.1 - Consultancy service on establishment and strengthening of NRL	Activity1.3 / Output TRAC	UNDP	EU / UNDP	72100	97,351.97	38,310.68	38,310.68	20,730.61		17,543.86
1.3.2 - Building NRL infrastructure and its international accreditation	Activity1.3	UNDP	EU	72200	530,778.51	0.00	300,000.00	130,778.51	100,000.00	
<i>Activity 1.4 - Capacity building on risk communication and awareness raising on the adverse effect of air pollution on health</i>						0.00				
1.4.1 - Consultancy service on capacity building on risk communication and awareness raising on the adverse effect of air pollution on health	Activity1.4	UNDP	EU	72100	85,526.32	33,656.96	51,869.36			
<b>Output 2. National frameworks and tools on gender equality and social inclusion in AQM developed and capacities for their application built</b>					<b>202,952.85</b>	<b>79,725.88</b>	<b>80,990.13</b>	<b>42,236.84</b>	<b>0.00</b>	<b>0.00</b>
<i>Activity 2.1 – Develop gender equality and social inclusion framework and toolkit, including checklist</i>										
2.1.1 - Consultancy service on development of GESI and EH tools	Activity2.1	UNDP	EU	72100	35,866.23	35,866.23				
	Activity2.1	UNDP	EU	72100	43,859.65	43,859.65				
<i>Activity 2.2 – Build capacities of relevant stakeholders in application of gender equality and social inclusion tools in AQ management</i>						0.00				
2.1.1 - Consultancy service on trainings and practical application of GESI and EH tools	Activity2.2	UNDP	EU	72100	40,990.13	0.00	40,990.13			
	Activity2.2	UNDP	EU	72100	82,236.84	0.00	40,000.00	42,236.84		
<b>Output 3. Enabling environment and knowledge and capacities of decision-makers and industry representatives enhanced in regulation of industrial emissions</b>					<b>526,589.91</b>	<b>218,242.38</b>	<b>116,077.79</b>	<b>192,269.74</b>	<b>0.00</b>	<b>4,934.21</b>
<i>Activity 3.1 Provide technical assistance to decision-makers and industry representatives in creating enabling policy and legal-regulatory basis, knowledge and implementation capacities for implementation of the Law on Industrial Emissions</i>										
3.1.1 - Local consultants to update technical regulations on industrial emissions	Activity3.1	UNDP	EU	71200	9,046.05	9,046.05				
3.1.2 - Consultancy service on BAT	Activity3.1	UNDP	EU	72100	425,274.12	209,196.33	116,077.79	100,000.00		
3.1.3 - Grant to SMEs on pilot BAT	Activity3.1	UNDP	EU	72600	92,269.74	0.00		92,269.74		
3.1.4 Trainings and consultations	Output TRAC	UNDP	UNDP	75700		0.00				4,934.21
<b>Total Output cost</b>					<b>3,682,279.61</b>	<b>523,441.59</b>	<b>2,195,604.72</b>	<b>863,233.29</b>	<b>100,000.00</b>	<b>33,991.23</b>
<b>Project Management costs</b>										
<b>1 Salaries (gross salaries including social security charges and other related costs, local staff)</b>	Activity4.1 / PMC TRAC	UNDP	EU/UNDP	71400	344,736.84	77,799.35	89,000.00	89,000.00	88,937.49	39,473.68
<b>2. Travel</b>	Activity4.2 / PMC TRAC	UNDP	EU/UNDP	73400	3,375.83	843.96	843.96	843.96	843.96	4,385.96
<b>3. Equipment and supplies</b>	Activity4.3	UNDP	EU	72200	3,289.47	3,289.47				
<b>4. Project office</b>	Activity4.4	UNDP	EU	73100	46,052.63	11,513.16	11,513.16	11,513.16	11,513.16	
<b>5. Other costs, services</b>	Activity4.5 / PMC TRAC	UNDP	EU/UNDP	74200	19,298.25	1,000.00	1,000.00	1,000.00	16,298.25	18,421.05
<b>Total Project Management Costs</b>					<b>416,753.02</b>	<b>94,445.94</b>	<b>102,357.12</b>	<b>102,357.12</b>	<b>117,592.85</b>	<b>62,280.70</b>
<b>6. Direct costs</b>										
6.1 Total direct cost of action					4,099,032.63	617,887.54	2,297,961.83	965,590.41	217,592.85	
<b>Subtotal Direct costs</b>					<b>4,099,032.63</b>	<b>617,887.54</b>	<b>2,297,961.83</b>	<b>965,590.41</b>	<b>217,592.85</b>	<b>0.00</b>
<b>7. GMS</b>										
7.1 7% of direct costs				75100	286,932.28	43,252.13	160,857.33	67,591.33	15,231.50	
<b>Subtotal GMS</b>					<b>286,932.28</b>	<b>43,252.13</b>	<b>160,857.33</b>	<b>67,591.33</b>	<b>15,231.50</b>	<b>0.00</b>
<b>TOTAL EU Contribution</b>					<b>4,385,964.91</b>	<b>661,139.66</b>	<b>2,458,819.16</b>	<b>1,033,181.74</b>	<b>232,824.35</b>	
<b>TOTAL UNDP Contribution</b>					<b>96,271.93</b>	<b>21,574.97</b>	<b>35,000.00</b>	<b>20,000.00</b>	<b>18,139.16</b>	<b>96,271.93</b>
<b>GRAND TOTAL</b>					<b>4,482,236.84</b>	<b>682,714.64</b>	<b>2,493,819.16</b>	<b>1,053,181.74</b>	<b>250,963.51</b>	<b>96,271.93</b>

**Project Time-schedule**

OUTPUTS	ACTIVITIES	Y1				Y2				Y3				Y4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 1</b>	Activity 1.1 Improve ambient AQ monitoring network																
	Activity 1.2 Introduce national AQ modelling and forecasting tools and enhance staff capacities in their application																
	Activity 1.3 Support to establishment and effective operations of NRL																
	Activity 1.4 Develop capacities of the relevant stakeholders in risk communication and increase population awareness on the adverse health effects from air pollution																
<b>Output 2</b>	Activity 2.1 Develop gender equality and social inclusion framework and toolkit, including checklist																
	Activity 2.2 Build capacities of relevant stakeholders in application of gender equality and social inclusion tools in AQ management																
<b>Output 3</b>	Activity 3.1 Provide technical assistance to decision-makers and industry representatives in creating enabling policy and legal-regulatory basis, knowledge and implementation capacities for implementation of the Law on Industrial Emissions																
<b>Project management</b>	1. Inception/preparatory phase																
	2. Management																
	3. PB meetings and project reviews																
	4. Monitoring																
	5. Evaluations																

## VI. LOGICAL FRAMEWORK AND ACTIVITY MATRIX

<b>Intended Outcome as stated in the UNSDCF 2021-2025/Count Programme Document 2021-2025 Results and Resource Framework:</b> By 2025, all people, without discrimination, enjoy enhanced resilience through improved environmental governance, climate action and sustainable management and use of natural resource(s) in Georgia
<b>Outcome indicators as stated in the Country Programme Document Results and Resources Framework, including baseline and targets:</b> 2.1. (UNSDCF indicator 5.1) [National SDG 13.2.1] Country communicated establishment of integrated policy/strategy/plan which increases country's ability to adapt to adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development. Baseline (2015): In 2015 Georgia adopted intended nationally determined contributions (INDC). The following are prepared: (a) Climate action plan (CAP), 2021-2030; (b) Nationally determined contributions (NDC), 2021-2030; Target (2025): (a) Updated NDC approved by Government and submitted to UNFCCC; (b) National action plan for energy sector produced (2023); (c) Long-term low emissions development strategies (LTLEDS) elaborated/adopted (2021); (d) Third biennial update report (BUR) (2022); (e) Fourth national communication to UNFCCC (2021)
<b>Applicable Output(s) from the UNDP Strategic Plan:</b> Output 1.1: The 2030 Agenda, Paris Agreement and other intergovernmentally-agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions
<b>Project title and Quantum Project Number:</b> Air Quality for Better Citizen's Health/01001653

Results	Results chain	Indicator	Baseline (value & reference year)	Target (value & reference year)	Current value* (reference year) (* to be included in interim and final reports)	Sources of data	Assumptions
Impact (Overall objective)	To improve air quality in order to better protect the health of citizens	Impact indicator # 1 <sup>49</sup> : Number (%) of cities with AQ monitoring where annual mean concentrations of PM 2.5, PM 10, NO2, SO2, CO, O3, Pb and C6H6 do not exceed AQ Limit Values.	2020: PM10 – 50%, PM2.5 – 50%; NO2 – 64%; SO2, CO, O3, Pb and C6H6 – 100%.	2026: PM10 and PM2.5 – 60%, NO2 – 68%; SO2, CO, O3, Pb and C6H6 – 100%.	2020: 2020: PM10 – 50%, PM2.5 – 50%; NO2 – 64%; SO2, CO, O3, Pb and C6H6 – 100%.	NEAP-4; air.gov.ge; AQ annual yearbook.	Sufficient reliable data
		Impact indicator # 2: Emission levels from transport and industry	2020: SO2 emissions from transport, energy and industry – 4,500 t/y.	2026: 4,000 t/y from transport, energy and industry	2020: SO2 emissions from transport, energy and industry – 4,500 t/y.	NEAP-4; Emission inventory report; Ministry of Internal Affairs (car registration statistics).	
Outcomes	Outcome: Better capacity to monitor, analyse and regulate air quality	1. National AQ monitoring, modelling, forecasting and reporting systems and capacities in line with EU CAFE Directive in place and operational (Yes/No)	2023: insufficient number of AQ monitoring stations, weak modelling, forecasting and reporting capacities)	1.1 By the end of the project (2027): <u>Yes</u>	2023: insufficient number of AQ monitoring stations, weak modelling, forecasting and reporting capacities)	Project reports, final evaluation, including evaluation of MEPA/NEA's capacities; AQ road map of Georgia	All parallel donor assistance projects, contribute successfully to the development of capacities for AQ monitoring and regulation; GoG (MEPA/NEA) is fully committed to provide proper O/M for received equipment and software and maintain trained staff for longer

<sup>49</sup>Impact indicators are provided for the purpose of monitoring overall situation in the country. The project does not have control over the achievement of these indicators.



Results	Results chain	Indicator	Baseline (value & reference year)	Target (value & reference year)	Current value* (reference year) (* to be included in interim and final reports)	Sources of data	Assumptions
							periods; No significant force majeure happens.
		2. Gender mainstreaming, social inclusion, environmental health assessment tools as well as local capacities and knowledge in their practical applications are in place (Yes/No);	2023: 0	2.1 By the End of the project (2027): <u>Yes</u>	2023: 0	Project reports, final evaluation, NCDC.	Sufficient reliable health and AQ data is available; All parallel donor assistance project contribute successfully to Georgia's capacity development in environmental health; Decision-makers have enough knowledge and capacities to apply GESI and AQH assessment tools
		3. Public understanding and usage of the air quality information and indexes enhanced compared to baseline year - Year 1 of Project Implementation (Yes/No)	2023-2024: To be established after the first baseline BI study	3.1 By the end of the project: Yes	2024: To be established after the first baseline BI study	Results of behavioural studies and outcomes of awareness raising campaigns	The project implements targeted awareness campaign with tailored messages and capacity building activities in way to have positive impact on target groups and general public.
		3. Regulatory basis for industrial emissions enhanced, industry application of BAT promoted through advocacy and creating specific incentives, and knowledge and capacities of decision-makers and industry representatives improvement in implementing the law on Industrial Emissions (Yes/No)	2023: The Law on Industrial Emissions Adopted; 5 BAT conclusions on Large Combustion Plants, Waste Incineration and Co-incineration, Cement, Lime and Manganese Oxides, Steel and Iron translated.	3.1 Year 4, end of the project (2027): <u>Yes</u> (to be measured through the level of achievement of output targets)	2023: The Law on Industrial Emissions Adopted; 5 BREFFs on Large Combustion Plants, Waste Incineration and Co-incineration, Cement, Lime and Manganese Oxides, Steel and Iron translated.	Project reports, final evaluation, regulations uploaded at the Legislative Herald of Georgia: <a href="http://www.matsne.gov.ge">www.matsne.gov.ge</a>	Industries are interested to engage in BAT-related activities and co-fund a pilot; GoG is willing to introduce incentive schemes industrial emissions; Private sector is acceptive of incentives introduced; Multi-stakeholder cooperation is successful; MEPA provides effective leadership for a multi-sectoral dialogue and consultations; No significant force majeure happens, including emergencies occur to lead to death, injuries and significant environmental degradation.
Outputs	Output 1. National capacities, infrastructure and tools enhanced in AQ monitoring, modelling and forecasting and data quality management	1.1 # of reviews on AQ monitoring network in Georgia	2020: AQ monitoring Road Map	1.1.1 Year 1 (2024): 1 review of existing AQ monitoring network and development of recommendations on specifications	2020: AQ monitoring Road Map	Project reports, NEA, review of AQ monitoring network	NEA effectively cooperates with project partners and takes full responsibility on O/M of equipment and regularly reports back to UNDP on the status of system operations. Cooperation with ongoing similar EU and Sida projects are successful. No significant force majeure happens, including emergencies o lead to death, injuries and significant environmental degradation.
		1.2 # of AQ monitoring stations procured, installed and effectively operational	2023: 18, including 9 new stations purchased through Sida's assistance	1.2.1 Year 2 (-2025): 10, including 9 stationary stations and 1 gravimetric sampler for Chiatura	2023: 18, including 9 new stations purchased through Sida assistance	Project/activity reports, NEA, project final evaluation, field monitoring visits.	
		1.3 # of training sessions for operators of new AQ monitoring equipment, with indication of % share of female participants.	2023: Training sessions of NEA staff with Sida's assistance	1.3.1 Year 2 (2025): 3, 1 on O/M of equipment; 1 on calibration of equipment (2024); 1 on QA/QC and validation of data (2025); at least 20% of female participation	2023. Training sessions of NEA staff with Sida's assistance	Project/activity reports, training materials and reports, NEA	

<b>Results</b>	<b>Results chain</b>	<b>Indicator</b>	<b>Baseline (value &amp; reference year)</b>	<b>Target (value &amp; reference year)</b>	<b>Current value* (reference year) (* to be included in interim and final reports)</b>	<b>Sources of data</b>	<b>Assumptions</b>	
		1.4 # of feasibility study on AQ modelling and forecasting tools	2023:0	1.4.1 Year 1 (2024): 1 feasibility study on AQ modelling and forecasting tools	2023:0	Project/activity reports; a feasibility/needs assessment study	NEA and NCDC effectively engage into the process and activity cooperate with the project; NEA and NCDC maintain capacity built after the project exit. EU and Sida similar projects cooperate closely with the given EU project.	
		1.5 # of modelling and forecasting tools developed/adapted and introduced at NEA and NCDC	2023: Regional dispersion model FARMA, several field data validators, absent data management system	1.5.1 Year 1 (2024): At least 8: 1 specific AQ modelling tool, 1 AQ forecasting tool; 1 data validation software, and 1 data management/servicing software; 4 WHO environmental health assessment tools	2023: # regional dispersion model FARMA, several validators, absent data management system	Project/activity reports, tools/softs, NEA, field monitoring visits.		
		1.6 # of coaching and training sessions on application of AQ models and forecasting tools, including on introduction to WHO tools, with indication of % share of female participants	2023: 0	1.6.1 By the end of Year 3 (2026): 7, 3 on AQ modelling and forecasting, and 4 on AQ health assessment; at least 20% female participation	2023: 0	Project/activity reports training reports, tools/softs, NEA.		
		1.7 # of reviews on National Air Quality Reference Laboratory (NRL) needs	2023: Ongoing CBA study on NRL under EU EPFACC project	1.7.1 Year 2 (2025): 1 review of NRL laboratory needs and development of recommendations on equipment specifications	2023: Ongoing CBA study on NRL under EU EPFACC project	Project/activity reports, tools/softs, NEA.		Feasibility study and a road map developed under EU Environment and CC project and kindly shared with the given EU activity team; Designated body for NRL (e.g. NEA) takes full commitment and ownership over the equipment received, and properly operates and maintains it. No significant force majeure happens, including emergencies to lead to death, injuries and significant environmental degradation.
		1.8 # of sets of NRL analytical and calibration equipment purchased for NRL	2023: 0	1.8.1 Year 3 (2026): At least 3 sets of analytical and calibration equipment	2023: 0	Project reports, procurement materials; equipment checked through field observations, NEA.		
		1.9 # of packages on QA/QC, intercomparison and calibration procedures developed and adopted by NRL	2023:0	1.19.1 Year 3 (2026): 1 package on QA/QC, intercomparison and calibration procedures	2023:0	Project reports, QA/QC documentation kept at NRL.		
		1.10 # of training sessions for NRL employees, with indication of % share of female participants	2023: 0	1.10.1 Year 3 (2026): At least 3: 1 on O/M of analytical and calibration equipment; 1 on QA/QC; 1 on intercomparison and calibration procedures; at least 20% female participation	2023: 0	Project/activity reports, training reports, tools, NRL.		
		1.11 QM system has been prepared and accreditation process for NRL has started (yes/no)	2023: 0	1.11.1 Year 4 (2027): QM system has been prepared and accreditation process for NRL has started <u>(yes)</u>	2023: 0	NEA, project reports, accreditation certification documents kept at NRL.		
		1.12: # of cooperation cases (e.g. online meetings, exchange of correspondence, etc.) with EURL and/or AQUILA/NRLs	2023: 0	1.12.1 By the end of project (2027): At least 3, 1 each year during the project implementation period starting from year 2	2023: 0	Project documents, reports, NRL.		

<b>Results</b>	<b>Results chain</b>	<b>Indicator</b>	<b>Baseline (value &amp; reference year)</b>	<b>Target (value &amp; reference year)</b>	<b>Current value* (reference year) (* to be included in interim and final reports)</b>	<b>Sources of data</b>	<b>Assumptions</b>
		1.13 Level of satisfaction of stakeholders by training and capacity building activities, measured as % share of respondents of online survey, evaluating the trainings on AQ monitoring, modelling, including AQ health modelling, forecasting, data quality management positively, with results disaggregated by sex	2023: 0	1.13.1 End of Year 4 (2027): At least 70% of respondents of online survey evaluate the capacity building programme positively	2023:0	NEA, PMU, UBA, project progress reports, survey results, disaggregated by sex, evaluation report	Beneficiaries of capacity building programme/trainings are not satisfied by it.
		1.14 # of behavioural insights (BI) studies on public understanding and usage of the air quality information and indexes, with results disaggregated by sex	2023: 0	1.14.1 End of the project (2027): 2 BI studies	2023: 0	WHO, BI studies, project reports	BI studies have standard-based quality and are highly representative.
		1.15 # of awareness raising campaigns on AQ and its health risks and benefits with tailored messaging; with indication of % share of female member of targeted audience	2023: 0	1.15. End of the project (2027): 1, with at least 50% of female members of targeted audience	2023: 0	WHO, awareness materials	Awareness raising campaign has correct messaging and good level of reach out
		1.16 Number of training sessions of key stakeholders on AQ health risk communication, with indication of % share of female participants	2023:0	1.16.1 Year 2: (2025): 2 trainings, with at least 30% of female participants	2023:0	WHO training reports with relevant audio-visual materials; project reports.	Stakeholder interest and participation in trainings is high
	Output 2. National frameworks and tools on gender equality and social inclusion in AQM developed and capacities for	2.1 # of gender equality and social inclusion tools, including checklist developed, to ensure that gender aspects are effectively mainstreamed in all results/outputs as part of the project concept and has equal health impact of the population	2023: 0	2.1.2 Year 1 (2024): 1 framework and 1 toolkit for its operationalisation	2023: 0	Project/activity reports, tools, national counterparts.	MEPA, other line ministries, NCDC and local municipalities are interested in learning and applying gender and social mainstreaming and environmental health assessment tools. MEPA is instrumental in mobilising stakeholders

<b>Results</b>	<b>Results chain</b>	<b>Indicator</b>	<b>Baseline (value &amp; reference year)</b>	<b>Target (value &amp; reference year)</b>	<b>Current value* (reference year) (* to be included in interim and final reports)</b>	<b>Sources of data</b>	<b>Assumptions</b>
	their application built	2.2 # of sets of training and knowledge building materials, including a guidance note developed	2023: 0	2.2.1 By end of the Year 2 (2025): 1 framework and 1 toolkit for its operationalisation	2023: 0	Project/activity reports, capacity building materials.	
		2.3 # of training sessions conducted, with indication of # participants and percentage share of female participants	2022: A training for NCDC under EU Twinning project	2.3.1 Year 3 (2026): 1 training package on gender mainstreaming and 1 training package on environmental health); 1 guidance note on pilot application of the framework	2022: A training for NCDC under EU Twinning project	Training reports, workshop participants/.	
		2.4 # of pilot studies on application of GESI and AQH tools conducted	2022-2023: 1 study under EU Twinning project	2.4.1 Year 3 (2026): 1 joint UNECE and WHO training in gender mainstreaming and social inclusion in AQ, including environmental health aspects; 25-30 participant, including 50% women	2022-2023: 1 study under EU Twinning project	Project/activity reports, field visits, pilot studies.	
		2.5. Level of satisfaction of targeted stakeholders with trainings and capacity and knowledge building activities, measured as % share of respondents of online survey, evaluating the trainings and capacity/knowledge building materials positively, disaggregated by sex	2023: 0	2.5.1 Year 3 (2026): 1 pilot application of gender mainstreaming and social inclusion tools, including health aspects	2023:0	MEPA, PMU, UNECE, survey results, disaggregated by sex, final evaluation.	
	Output 3. Enabling environment, knowledge and implementation capacities of decision-makers and industry representatives enhanced in regulation of industrial emissions	3.1 # of draft regulations developed/updated	2023: 3	3.1.1 Year 1 (2024): up to 3 BAT/BREF-based draft regulations	2023: 3 under EU Twinning project	Regulations posted at Legislative Herald of Georgia, <a href="http://www.matsne.gov.ge">www.matsne.gov.ge</a> .	Industries are interested to participate in pilot projects; Government is willing to adopt and implement industry incentives; Industries and receptive of incentives suggested; MEPA and MoESD successfully coordinate engagement of industry. No significant force majeure happens, including emergencies occur to lead to death, injuries and significant environmental degradation.
3.2 # of studies on BAT developed	2023: 0	3.2.1 By the end of Year 3 (2026): 2, 1 BAT feasibility study (Year 2) and 1 on industry incentives (year 3)	2023: 0	Project reports, feasibility studies, project partners.			
3.3 # of pilot BAT projects, on cost-sharing basis	2023: 0	3.3.1 End of Year 3 (2026) : at least 1 pilot BAT project	2023: 0	Project documentation, photo-video materials, field visits.			
3.4 # of consultations and # of stakeholders consulted, with indication of % share of femal participants	2023: 0	3.4.1: By the end of the project (2027): 3, 1 consultations per study (in total, 2), 1 consultation on pilot project; 90 stakeholders, 30 stakeholders per event, including 20% women	2023: 0	Consultation reports and proto-video materials/			

<i>Results</i>	<i>Results chain</i>	<i>Indicator</i>	<i>Baseline (value &amp; reference year)</i>	<i>Target (value &amp; reference year)</i>	<i>Current value* (reference year) (* to be included in interim and final reports)</i>	<i>Sources of data</i>	<i>Assumptions</i>
		3.5 # of capacity building/learning tools and products	2023: 0	3.5.1 Year 3 (2026): 2, 1 self-paced course for decision-makers and industries, 1 printed materials for class-room trainings	2023: 0	Training materials/products, study tour report	Industries and key decision-makers are interested in getting up-to-date knowledge and skills in regulation and control of industrial emissions; MEPA is instrumental in mobilising trainees and study tour participants.
		3.6 # of trainings, with indication of number of participants and % share of female participants	2023: 0	3.6.1 by the end of Year 4 (2027): 3, 2 trainings and 1 study tour; 60 training participants: 30 per training, including 20% women, and 12 study tour participants: 1 staff member from AAD/MEPA, 1 staff member from MoESD, 1 member from the environment parliamentary committee of Georgia, 3 staff members from Environmental Supervision Department, 3 staff members from Environmental Assessment Department/NEA/MEPA, and 3 industry representatives; 20% women.	2023: 0	Training reports, study tour report	
		3.7 Level of satisfaction of targeted stakeholders with trainings and capacity/knowledge building activities, measured as % share of respondents of online survey, evaluating the trainings and capacity/knowledge building materials positively, with results disaggregated by sex.	2023:0	3.7.1: By the end of Year 4 (2027): At least 70% of respondents of online survey evaluate the capacity building programme positively	2023:0	Survey results	

*Note: The overall targets will be broken down by yearly targets at the project inception.*

#### **Activity Matrix**

<b>Output</b>	<b>Activity</b>	<b>Input</b>	<b>Assumptions</b>
<b>Output 1</b>	Activity 1.1 Improve ambient AQ monitoring network	<b>Means:</b> International and local consultants (UNDP, UBA, NEA); 9 AQ stations and 1 gravimetric analyser for Chiatura, trainings, monitoring of activities	<b>Assumptions:</b> NEA's active participation and full commitment for proper O/M of equipment; periodic reporting by NEA to UNDP on software status; cooperation with EU parallel projects; No significant force majeure happens, including emergencies occur to lead to death, injuries and significant environmental degradation.
	Activity 1.2 Introduce national AQ modelling and forecasting tools and enhance staff capacities in their application	<b>Means:</b> International and local consultants (UBA, WHO, NEA), feasibility study, modelling and forecasting software, validation and data management software, AQ health software packages, training materials trainings/coaching	<b>Assumptions:</b> NEA's and NCDC's active participation and full commitment for effective application of software; periodic reporting by NEA to UNDP on software status; cooperation with EU parallel project

<b><u>Output</u></b>	<b><u>Activity</u></b>	<b><u>Input</u></b>	<b><u>Assumptions</u></b>
	Activity 1.3 Support to establishment and effective operations of NRL	<b><u>Means:</u></b> International and local consultants (UNDP, UBA, NRL/NEA); laboratory and calibration equipment, trainings, studies, ISO/international certification/accreditation; networking events.	<b><u>Assumptions:</u></b> NEA's active participation and full commitment for proper O/M of equipment; periodic reporting by NEA to UNDP on the status of equipment; close cooperation with ongoing EU project; No significant force majeure happens, including emergencies occur to lead to death, injuries and significant environmental degradation.
	Activity 1.4 Develop capacities of the relevant stakeholders in risk communication and increase population awareness on the adverse health effects from air pollution	<b><u>Means:</u></b> International and local consultants (WHO); 2 BI studies, 1 awareness campaign, trainings	
<b><u>Output 2</u></b>	Activity 2.1 Develop gender equality and social inclusion framework and toolkit, including checklist	<b><u>Means:</u></b> International consultants - Design of tools, including checklist (UNECE&WHO).	<b><u>Assumptions:</u></b> Stakeholder interest for gender equality and social inclusion and environmental health assessments; MEPA's and MoH/NCDC's leadership in mobilising stakeholders.
	Activity 2.2 Build capacities of relevant stakeholders in application of gender equality and social inclusion tools in AQ management	<b><u>Means:</u></b> International and local experts (UNECE&WHO), capacity/knowledge building programme: trainings in gender and social mainstreaming in AQ, trainings in gender and health aspects of air pollution; learning by doing: pilot application of tools.	
<b><u>Output 3</u></b>	Activity 3.1 Provide technical assistance to decision-makers and industry representatives in creating enabling policy and legal-regulatory basis, knowledge and implementation capacities for implementation of the Law on Industrial Emissions	<b><u>Means:</u></b> UNDP Local experts (law specialists), UNDP and UNECE Air Convention experts, industry cost-sharing, pilot project equipment, studies, meetings/consultations, training materials, trainings, study tour, stakeholder consultations.	<b><u>Assumptions:</u></b> Interest of industries and decision-makers to get a know-how on controlling industrial emission and implement learned practices; Willingness of the GoG to implement incentives for industries; MEPA's leadership in mobilising stakeholders and coordinating stakeholder consultations/dialogue. Interest of decision-makers to adopt and support implementation of incentive schemes for vehicles; Business acceptance, affordability; MEPA's leading role in multi-stakeholder dialogue and consultations; No significant force majeure happens, including emergencies occur to lead to death, injuries and significant environmental degradation.
<b><u>Project Mgmt</u></b>	<b><u>Project Mgmt</u></b>	<b><u>Means:</u></b> UNDP Project Manager, Project Assistant, office running costs, project monitoring and evaluation, PB meetings and periodic project reviews	

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## VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

The MEPA will be an Implementing Partner for the Project under the NIM with full Country Office support modality. The project will establish a Project Board (PB) to:

1. provide high-level oversight of the project, including:
  - a. review of evidence of project performance based on monitoring, evaluation and reporting, including progress reports, monitoring missions' reports, evaluations, risk logs, quality assessments, and the combined delivery report;
  - b. taking corrective actions as needed to ensure the project achieves the desired results and;
  - c. oversight of annual (and as-needed) assessments of any major risks to the project, and related decisions/agreements on any management actions or remedial measures to address them effectively.
2. approve certain adjustments above provided tolerance levels, including substantive programmatic revisions (major/minor amendments), budget revisions, requests for suspension or extension and other major changes (subject to additional funding partner/donor requirements).
3. carry the role of quality assurance of the project, taking decisions informed by, among other inputs, the project quality assessment. In this role the Board is supported by the quality assurer, whose function is to assess the quality of the project against the corporate standard criteria.

The PB is responsible for making management decisions by consensus when required, including the approval of project plans and revisions, and the project manager's tolerances. The PB approves annual work plans and reviews updates to the project risk log.

The members of PB will perform Executive, Senior User/Beneficiary and Senior Supplier roles:

**Executive:** UNDP, at least at Deputy Resident Representative level, and MEPA through National Project Director (NPD), represented by the First Deputy Minister will perform a Project Executive role in the PB and will co-chair it. The NPD will represent the primary owner of the project. In her absence the head of the AAD, will play an ex-officio PB chairman's role.

**Senior User(s)/ Beneficiary Representative(s):** Representatives of NEA/MEPA, MoESD, MoF and NCDC will play a Senior User's role in the PB, representing the interests of key beneficiaries. Their primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries.

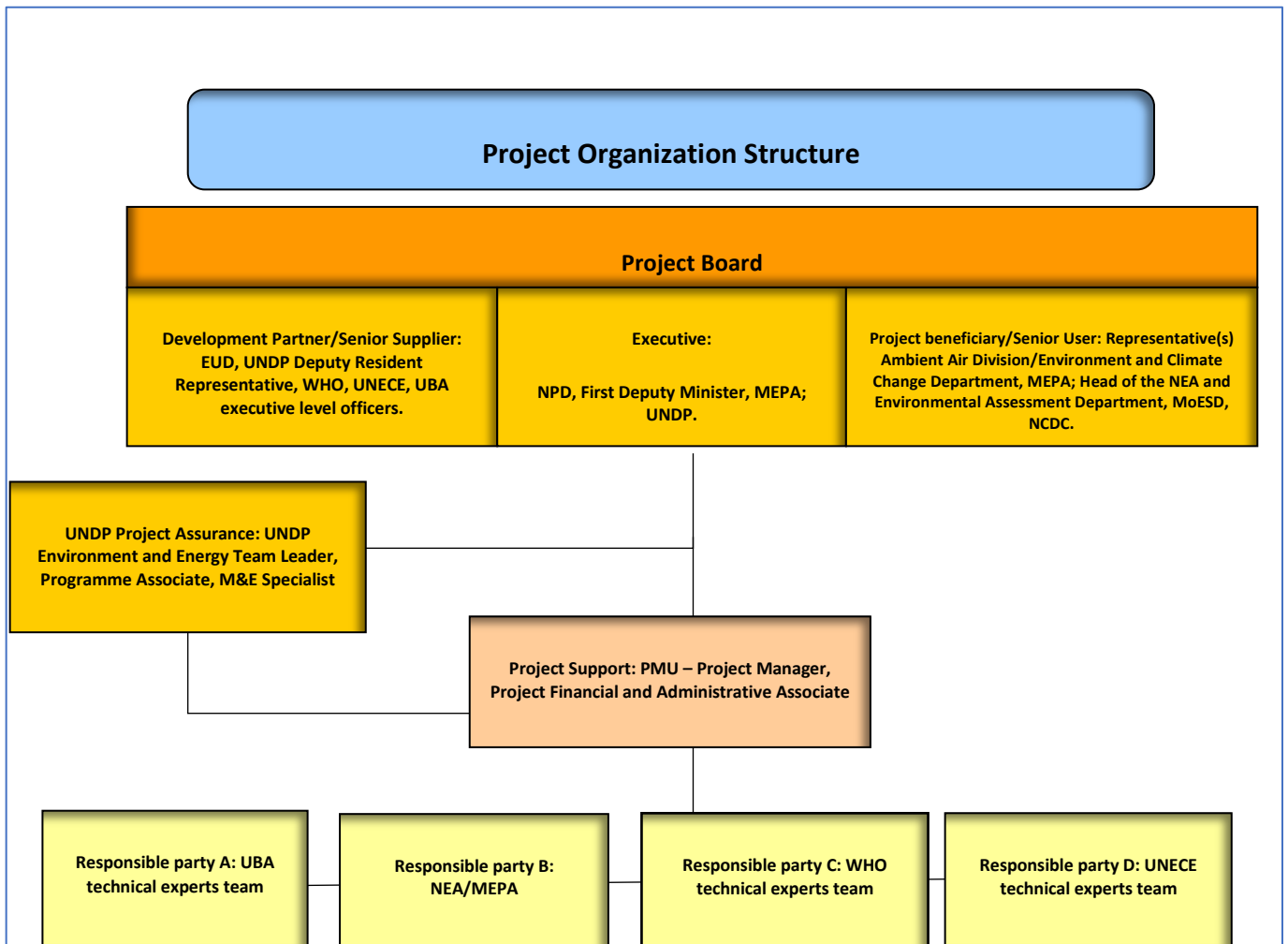
**Senior Supplier(s)/Development Partner(s):** Representatives of EUD, UNDP Georgia (at least at the Deputy Resident Representative Level), UNECE, WHO and UBA will perform the Senior Supplier's role in the Board, representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. EU EPFACC and Health and Green complementary project on AQ planning and vehicle emissions to be implemented by a Consortium of Slovak and Spanish agencies with similar outputs will be invited to extended PB meetings in order to better coordinate the activities and achieve better synergies. Upon demand, expansion of the PB may be considered to include other Line Ministries and stakeholders.

**Project Assurance:** Project assurance is the responsibility of each PB member; however, UNDP has a distinct assurance role in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the PB and Project Management Unit (PMU) by carrying out objective and independent project oversight and monitoring functions, including applying UNDP's social and environmental management system to ensure the SES are applied through the project cycle. UNDP Environment and Energy Team as well as M&E Officer will play the project assurance role and are expected to attend all PB meetings and support board processes as a non-voting representative.

**The Project Management Unit -** The Project Manager (PM) will be the most senior representative of the Project Management Unit (PMU) and will be responsible for the overall management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the Board for review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk logs.



A designated representative of the PMU is expected to attend all board meetings and present the required progress reports and other documentation needed to support board processes as a non-voting representative.



**Diagramme 3. Project Organization Structure**

For key project topics, including: i) air quality monitoring; ii) air quality modelling and forecasting; iii) data quality management, NRL issues inclusive, iv) air quality capacity building; v) regulation of industrial emissions ad-hock technical groups will be established with participation of the project's technical teams, experts of parallel EU projects and MEPA representatives to extensively discuss technical issues of the thematic areas, exchange ideas on the approaches and come-up with the most feasible technical solutions.

UNDP will be responsible for:

- Ensuring performance and financial verification in accordance with the agreement and with its specific internal procedures and requirements;
- Coordinating and providing overall supervision of partners work, including the work of the responsible government entities;
- Liaising with key stakeholders and in conjunction with MEPA facilitating multi-stakeholder discussions and consultations;
- In conjunction with MEPA cooperating with various donor projects and potential financiers and building strategic partnerships with them
- In conjunction with MEPA carrying out awareness and advocacy activities and ensuring that all the activities are in line with UN and EU communications and visibility policies
- Reporting back to EU
- Providing assistance with policy, management and technical support when required.

The project will undergo audits according to UNDP HACT rules and regulations.

### Communication and Visibility

To ensure transparency and visibility of the project implementation, the NPD and the PMU will communicate across various audiences, keeping all partners and stakeholders informed of the project's progress, specific activities, and public events, and ensuring MEPA's lasting commitment to its successful implementation.

Seeking to ensure **the European Union's leading role** in improving Air Quality for Better Citizen's Health in Georgia and underscore successful cooperation between the EU and UNDP, the project-related communication and visibility activities will be fully aligned with the provisions of the Financial and Administrative Framework Agreement (FAFA) between EU-UN and the General Conditions of the EU-UNDP Contribution Agreement.

UNDP will ensure that activities envisaged by the Communication and Visibility Plan fully comply with Annex II: General Conditions and the EC-UN Joint Visibility Guidelines in the field and are implemented with support from the UNDP Georgia's Communication Team in consultation with the EU Delegation and EU4Georgia.

UNDP will ensure that communication and visibility activities are implemented in line with the relevant contractual requirements and the Joint Visibility Guidelines for EC-UN in the field.

An **EU Digitool**<sup>54</sup> project profile will be registered and updated regularly. All visibility materials will be developed in collaboration with the EU. Information about the project's progress will be provided to the EU Delegation and the EU4Georgia team per request.

UNDP will develop a **Communication and Visibility Plan** that will guide communication and visibility activities throughout the project cycle, contributing to effective and timely information-sharing with stakeholders and the public.

The Communication and Visibility Plan will outline communication goals and objectives; target audiences; tools and channels; and major activities. It will present a comprehensive strategy to effectively engage target audiences, raise awareness, and foster both national and local participation in the project implementation, enhancing EU visibility and highlighting successful cooperation between the EU and UNDP. Regular evaluation and feedback mechanisms will be in place to adapt and enhance the CVP throughout the project cycle.

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## VIII. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the government of Georgia and UNDP, signed on 1-Jul-1994. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

The project will be implemented by the Ministry of Environment Protection and Agriculture ("Implementing partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

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## IX. RISK MANAGEMENT

1. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
  - a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
  - b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism, that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via <https://www.un.org/securitycouncil/content/un-sc-consolidated-list>.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

(a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

(b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

- i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
- ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
- iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;
- iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
- v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation,

the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).

7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

10. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

11. The Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

12. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at [www.undp.org](http://www.undp.org).

13. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

14. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, credible allegation of fraud or corruption or other financial irregularities with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The

Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

**15.** UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors, and sub-recipients.

15. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

16. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

17. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

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## **X. ANNEXES**

**Annex I. Design Quality Assessment**

**Annex II. Risk Matrix**

**Annex III. Social and Environmental Screening Template**

**Annex IV. Project Board TOR**

**Annex V. Standard Letter of Agreement for the provision of support services**

## Annex I. Design Quality Assessment of the Project document

Strategic

Status: Complete

Quality Rating: Satisfactory

### 1. Does the project specify how it will contribute to higher level change through linkage to the programme's Theory of Change?

- 3: The project is clearly linked to the programme's theory of change. It has an explicit change pathway that explains how the project will contribute to outcome level change and why the project's strategy will likely lead to this change. This analysis is backed by credible evidence of what works effectively in this context and includes assumptions and risks.
- 2: The project is clearly linked to the programme's theory of change. It has a change pathway that explains how the project will contribute to outcome-level change and why the project strategy will likely lead to this change.
- 1: The project document may describe in generic terms how the project will contribute to development results, without an explicit link to the programme's theory of change.

\*Note: Projects not contributing to a programme must have a project-specific Theory of Change. See alternative question under the information icon for these cases.

\*Note: Risk management must be done for criteria with score of 1.

#### Evidence (Enter a short explanation or upload a document that provides evidence for your response)

The project has well-defined Theory of change presented in section 2.1 Intervention Logic

### 2. Is the project aligned with the UNDP Strategic Plan?

- 3: The project responds to at least one of the development settings as specified in the Strategic Plan and adapts at least one Signature Solution. The project's RRF includes all the relevant SP output indicators. (all must be true)
- 2: The project responds to at least one of the development settings as specified in the Strategic Plan. The project's RRF includes at least one SP output indicator, if relevant. (both must be true)
- 1: The project responds to a partner's identified need, but this need falls outside of the UNDP Strategic Plan. Also select this option if none of the relevant SP indicators are included in the RRF.

\*Note: Risk management must be done for criteria with score of 1.

#### Evidence (Enter a short explanation or upload a document that provides evidence for your response)

Yes, the project is aligned with Output 1.1: The 2030 Agenda, Paris Agreement and other inter-governmentally agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions.

### 3. Is the project linked to the programme outputs? (i.e., UNSDCF/CPD, RPD or Strategic Plan IRRF for strategic interventions not part of a programme)

- YES
- NO

\*Note: Project QA cannot be approved by Project QA Approver when the response is "No".

#### Evidence (Enter a short explanation or upload a document that provides evidence for your response)

CPD 2021-2025 Output 2.1 Environmental governance and institutional capacity enhanced to enable rational, equitable, and sustainable use of natural/land resources, to ensure the conservation of ecosystems, use of innovative and climate-friendly technologies for an inclusive green economy, energy efficiency, and clean energy production, and make communities more resilient to environmental shocks;

Relevant

Status: Complete

Quality Rating:  
Satisfactory

### 4. Does the project identify target groups, and particularly those marginalized, vulnerable and left further behind (LNOB)

- 3: The LNOB target groups are clearly specified, prioritising discriminated, and marginalized groups left furthest behind, identified through a rigorous process based on evidence.



2: The LNOB target groups are clearly specified, prioritizing groups left furthest behind.

1: The LNOB target groups are not clearly specified.

\*Note: Risk management must be done for criteria with score of 1. Projects that build institutional capacity should still identify targeted groups to justify support.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The Project's primary objective is to enhance the national capacity to monitor and analyse air quality and regulate industrial emissions and therefore, mainly deals with government institutions dealing with air quality monitoring. Achievement of the project objective will positively affect all groups, including marginalized ones.

**5. Have knowledge, good practices, and past lessons learned of UNDP and others informed the project design?**

3: Knowledge and lessons learned backed by credible evidence from sources such as evaluation, corporate policies/strategies, and/or monitoring have been explicitly used, with appropriate referencing, to justify the approach used by the project.

2: The project design mentions knowledge and lessons learned backed by evidence/sources but have not been used to justify the approach selected.

1: There is little, or no mention of knowledge and lessons learned informing the project design. Any references made are anecdotal and not backed by evidence.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project represents first attempt of the Environment Portfolio to enter the area of air quality management and therefore, no prior experience in this particular area exists. Though the project document specifically mentions that lessons from this project will be captured and analyzed (section 3.9 Knowledge).

**6. Does UNDP have a clear advantage to engage in the role envisioned by the project vis-à-vis national / regional / global partners and other actors?**

3: An analysis has been conducted on the role of other partners in the area where the project intends to work, and credible evidence supports the proposed engagement of UNDP and partners through the project, including identification of potential funding partners. It is clear how results achieved by partners will complement the project's intended results and a communication strategy is in place to communicate results and raise visibility vis-à-vis key partners. Options for south-south and triangular cooperation have been considered, as appropriate. (all must be true)

2: Some analysis has been conducted on the role of other partners in the area where the project intends to work, and relatively limited evidence supports the proposed engagement of and division of labour between UNDP and partners through the project, with unclear funding and communications strategies or plans.

1: No clear analysis has been conducted on the role of other partners in the area that the project intends to work. There is risk that the project overlaps and/or does not coordinate with partners' interventions in this area. Options for south-south and triangular cooperation have not been considered, despite its potential relevance.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

In section 1.1.3 "Past and On-going donor efforts" the prodoc reviews all partners/international project active in the area, while section 2.2.4 "Country presence, capacity and programme" describes UNDP's comparative advantage in implementing this project.

Principled

Status: Complete

Quality Rating:  
Satisfactory

**7. Does the project apply a human rights-based approach?**

3: The project is guided by human rights and incorporates the principles of accountability, meaningful participation, and non-discrimination in the project's strategy. The project upholds the relevant international and national laws and standards. Any potential adverse impacts on enjoyment of human rights were rigorously identified and assessed as relevant, with appropriate mitigation and management measures incorporated into project design and budget. (all must be true)

2: The project is guided by human rights by prioritizing accountability, meaningful participation and non-discrimination. Potential adverse impacts on enjoyment of human rights were identified and assessed as relevant, and appropriate mitigation and management measures incorporated into the project design and budget. (both must be true)

1: No evidence that the project is guided by human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights were considered

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

As mentioned, in SESP " The project is designed based on human rights-based approach, aiming at enhancing the knowledge and system, institutional and staff-level capacities of the "duty-bearers" (relevant Ministries and industries, e.g. Ministry of Environmental Protection and Agriculture, National Centre of Disease Control under the Ministry of Health) to meet their obligations (AQ monitoring, modelling, forecasting, data calibration, QA/QC, regulation of industrial emissions and of the "rights-holders" (civil society organization, individual citizens and overall, general public) to claim their rights (access to AQ and AQ health information) in line with key provisions of UN Universal Declaration of Human Rights (e.g. article 23 (2), 19 and 23)".

**8. Does the project use gender analysis in the project design?**

3: A participatory gender analysis has been conducted and results from this gender analysis inform the development challenge, strategy and expected results sections of the project document. Outputs and indicators of the results framework include explicit references to gender equality, and specific indicators measure and monitor results to ensure women are fully benefitting from the project. (all must be true)

2: A basic gender analysis has been carried out and results from this analysis are scattered (i.e., fragmented and not consistent) across the development challenge and strategy sections of the project document. The results framework may include some gender sensitive outputs and/or activities but gender inequalities are not consistently integrated across each output. (all must be true)

1: The project design may or may not mention information and/or data on the differential impact of the project's development situation on gender relations, women and men, but the gender inequalities have not been clearly identified and reflected in the project document.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Gender analysis and project's activities specifically designed for promoting Gender Equality is presented in section 3.11 "Gender mainstreaming".

**9. Did the project support the resilience and sustainability of societies and/or ecosystems?**

3: Credible evidence that the project addresses sustainability and resilience dimensions of development challenges, which are integrated in the project strategy and design. The project reflects the interconnections between the social, economic and environmental dimensions of sustainable development. Relevant shocks, hazards and adverse social and environmental impacts have been identified and rigorously assessed with appropriate management and mitigation measures incorporated into project design and budget. (all must be true)

2: The project design integrates sustainability and resilience dimensions of development challenges. Relevant shocks, hazards and adverse social and environmental impacts have been identified and assessed, and relevant management and mitigation measures incorporated into project design and budget. (both must be true)

1: Sustainability and resilience dimensions and impacts were not adequately considered.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Social And environmental impact of the project has been assessed in SESP.

**10. Has the Social and Environmental Screening Procedure (SESP) been conducted to identify potential social and environmental impacts and risks? The SESP is not required for projects in which UNDP is Administrative Agent only and/or projects comprised solely of the preparation and dissemination of reports and communication materials; organization of events, workshops, or training; strengthening capacities of partners to participate in international negotiations and conferences; partnership coordination (including UN coordination) and management of networks; and global/regional projects with no country-level activities as well as Development Effectiveness projects and Institutional Effectiveness projects. [If yes, upload the completed checklist. If SESP is not required, Select all exemption criteria that apply.]**

- Yes
- No
- SESP not required because project consists solely of (Select all exemption criteria that apply)

**\*Applicable only to option "SESP not required"**

- 1: Preparation and dissemination of reports, documents and communication materials
- 2: Organization of an event, workshop, training
- 3: Strengthening capacities of partners to participate in international negotiations and conferences
- 4: Partnership coordination (including UN coordination) and management of networks
- 5: Global/regional projects with no country level activities (e.g. knowledge management, inter-governmental processes)
- 6: UNDP acting as Administrative Agent
- 7: Development Effectiveness projects and Institutional Effectiveness projects

\*Note: Project QA cannot be approved by Project QA Approver when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

SESP has been conducted and 3 risks identified.

Management & Monitoring

Status: Complete

Quality Rating:  
Satisfactory

**11. Does the project have a strong results framework?**

- 3: The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators that measure the key expected development changes, each with credible data sources and populated baselines and targets, including gender sensitive, target group focused, sex-disaggregated indicators where appropriate. (all must be true)
- 2: The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators, but baselines, targets and data sources may not yet be fully specified. Some use of target group focused, sex-disaggregated indicators, as appropriate. (all must be true)
- 1: The project's selection of outputs and activities are not at an appropriate level; outputs are not accompanied by SMART, results-oriented indicators that measure the expected change and have not been populated with baselines and targets; data sources are not specified, and/or no gender sensitive, sex-disaggregation of indicators. (if any is true)

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project logframe contains impact, outcome and output level indicators, which are SMART. Targets are not broken down by years, but it is noted that the breakdown will be made at the project inception.

**12. Is the project's governance mechanism clearly defined in the project document, including composition of the project board?**

- 3: The project's governance mechanism is fully defined. Individuals have been specified for each position in the governance mechanism (especially all members of the project board.) Project Board members have agreed on their roles and responsibilities as specified in the terms of reference. The ToR of the project board has been attached to the project document. (all must be true)
- 2: The project's governance mechanism is defined; specific institutions are noted as holding key governance roles, but individuals may not have been specified yet. The project document lists the most important responsibilities of the project board, project director/manager and quality assurance roles. (all must be true)

- 1: The project's governance mechanism is loosely defined in the project document, only mentioning key roles that will need to be filled at a later date. No information on the responsibilities of key positions in the governance mechanism is provided.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project's governance mechanism is well described in section VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS. TOR of the Project Board is attached as Annex IV.

**13. Have the project risks been identified using the risk assessment tools (Project Quality Assurance, Social and Environmental Screening Procedure, Partner Capacity Assessment Tool, Harmonized Approach to Cash Transfer, Private Sector Due Diligence, etc., if applicable), with clear plans stated to manage and mitigate each risk?**

- 3: Project risks related to the achievement of results are fully described in the project risk register, based on comprehensive analysis drawing on the programme's theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis such as funding potential and reputational risk. Risks have been identified through a consultative process with key internal and external stakeholders, including consultation with the UNDP Security Office as required. Clear and complete plan in place to manage and mitigate each risk, including security risks, reflected in project budgeting and monitoring plans. (both must be true)

- 2: Project risks related to the achievement of results are identified in the initial project risk register based on a minimum level of analysis and consultation, with mitigation measures identified for each risk.

- 1: Some risks may be identified in the initial project risk register, but no evidence of consultation or analysis and no clear risk mitigation measures identified. This option is also selected if risks are not clearly identified, no initial risk log is included with the project document and/or no security risk management process has taken place for the project.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Yes, the project risks are identified and captured in risk log (Annex II).

Efficient

Status: Complete

Quality Rating:  
Highly Satisfactory

**14. Have specific measures for ensuring cost-efficient use of resources been explicitly mentioned as part of the project design?**

- Yes

- No

\*Note: Risk management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Cost-efficient use of resources are discussed in section 4.1 "Cost Efficiency and Effectiveness"

**15. Is the budget justified and supported with valid estimates?**

- 3: The project's budget is at the activity level with funding sources, and is specified for the duration of the project period in a multi-year budget. Realistic resource mobilisation plans are in place to fill unfunded components. Costs are supported with valid estimates using benchmarks from similar projects or activities. Cost implications from inflation and foreign exchange exposure have been estimated and incorporated in the budget. Adequate costs for monitoring, evaluation, communications and security have been incorporated.

- 2: The project's budget is at the activity level with funding sources, when possible, and is specified for the duration of the project in a multi-year budget, but no funding plan is in place. Costs are supported with valid estimates based on prevailing rates.

- 1: The project's budget is not specified at the activity level, and/or may not be captured in a multi-year budget.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project budget is at activity level, providing breakdown by years, funding and implementing partner.

**16. Is the Country Office / Regional / Global Project fully recovering the costs involved with project implementation?**

- 3: The budget fully covers all project costs that are attributable to the project, including programme management and development effectiveness services related to strategic country programme planning, quality assurance, pipeline development, policy advocacy services, finance, procurement, human resources, administration, issuance of contracts, security, travel, assets, general services, information and communications based on full costing in accordance with prevailing UNDP policies (i.e., UPL, LPL.)
- 2: The budget covers significant project costs that are attributable to the project based on prevailing UNDP policies (i.e., UPL, LPL) as relevant.
- 1: The budget does not adequately cover project costs that are attributable to the project, and UNDP is cross-subsidizing the project.

\*Note: Risk management must be done for criteria with score of 1. The budget must be revised to fully reflect the costs of implementation before the project commences.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project is funded by EU and therefore, DPC can not be charged. However, the CO recovers the costs by charging salaries of CO programme and operational staff, who will be providing services to the project.

Effective

Status: Complete

Quality Rating:  
Highly Satisfactory

**17. Have targeted groups, and particularly those marginalized, vulnerable, and left further behind (LNOB), been engaged in the design of the project?**

- 3: Credible evidence that all targeted groups, prioritising discriminated, vulnerable and marginalized populations that will be involved in or affected by the project, have been actively engaged in the design of the project. The project has an explicit strategy to identify, engage and ensure the meaningful participation of target groups as stakeholders throughout the project, including through monitoring and decision-making (e.g., representation on the project board, inclusion in samples for evaluations, etc.)
- 2: Some evidence that key targeted groups have been consulted in the design of the project.
- 1: No evidence of engagement with targeted groups during project design.
- Not Applicable

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

N/A, the project deals with building national capacities for monitoring air quality in the country.

**18. Does the project plan for adaptation and course correction if regular monitoring activities, evaluation, and lesson learned demonstrate there are better approaches to achieve the intended results and/or circumstances change during implementation?**

- Yes
- No

\*Note: Risk Management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The Project Board will be used as a mechanism for monitoring overall context and altering project course if altered context requires so.

**19. The gender marker for all project outputs are scored at GEN2 or GEN3, indicating that gender has been fully mainstreamed into all project outputs at a minimum.**

- Yes

No

\*Note: Risk management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project is GEN2

**20. Have societal digital risks and opportunities been taken into account when designing the project's approach and have digital or data technology solutions been considered to enhance the efficiency, effectiveness and scalability of project results?**

3: To the extent possible, societal digital risks and opportunities have been investigated when designing the strategy and Theory of Change, and the potential use of digital or data technologies in project activities has been considered in line with UNDP's digital standards and data principles. (All must be true)

2: Only the potential use of digital or data solutions in project activities has been considered in line with UNDP's digital standards and data principles, but there is no or limited evidence that aspects of inclusive digital societies have been considered in the design of the strategy or Theory of Change.

1: Neither societal digital risks and opportunities, nor digital or data technology solutions were specifically considered in the project design or, UNDP's digital standards and data principles are not taken into account when intending to use digital or data technology solutions in project activities.

Digital considerations are not relevant to this project.

**\*Applicable only to option "Digital considerations are not relevant"**

1: Societal digital transformation is not a government or contextual priority

2: A non-digital approach yields higher effectiveness and efficiency

3: Other (specify in the "Evidence" section)

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Potential use and production of digital tools are considered in section 3.8. "Digital Solutions".

Sustainability & National Ownership

Status: Complete

Quality Rating:  
Satisfactory

**21. Have national / regional / global partners led, or proactively engaged in, the design of the country / regional / global project, respectively?**

3: National / regional / global partners have full ownership of the country / regional / global project and led the process of the development of the project jointly with UNDP.

2: The project has been developed by UNDP in close consultation with national / regional / global partners.

1: The project has been developed by UNDP with limited or no engagement with national partners.

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project was developed in close partnership with the Ministry of Environment Protection and Agriculture (MEPA). Moreover, the project will be implemented by MEPA and Government counterparts were invited to project LPAC to share their comments/views.

**22. Are key institutions and systems identified, and is there a strategy for strengthening specific / comprehensive capacities based on capacity assessments conducted?**

3: The project has a strategy for strengthening specific capacities of national institutions and/or actors based on a completed capacity assessment. This strategy includes an approach to regularly monitor national capacities using clear indicators and rigorous methods of data collection, and adjust the strategy to strengthen national capacities accordingly.

- 2: A capacity assessment has been completed. There are plans to develop a strategy to strengthen specific capacities of national institutions and/or actors based on the results of the capacity assessment.
- 1: Capacity assessments have not been carried out
- Not Applicable

\*Note: Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

HACT assessments will be completed fro all responsible partners in due course.

**23. Is there is a clear strategy embedded in the project specifying how the project will use national systems (i.e., procurement, monitoring, evaluations, etc.,) to the extent possible?**

- Yes
- No
- Not Applicable

\*Note: Risk management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project is NIM with CO support and therefore, UNDP will use its own system of procurement, M&E, etc. However, government responsible partners will be using national systems within the frames of LOAs.

**24. Is there a clear transition arrangement / phase-out plan developed with key stakeholders in order to sustain or scale up results (including resource mobilisation and communications strategy)?**

- Yes
- No

\*Note: Risk management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The issues of sustainability and potential scale-up of the project are considered in section 3.10 "Sustainability and Scaling Up".

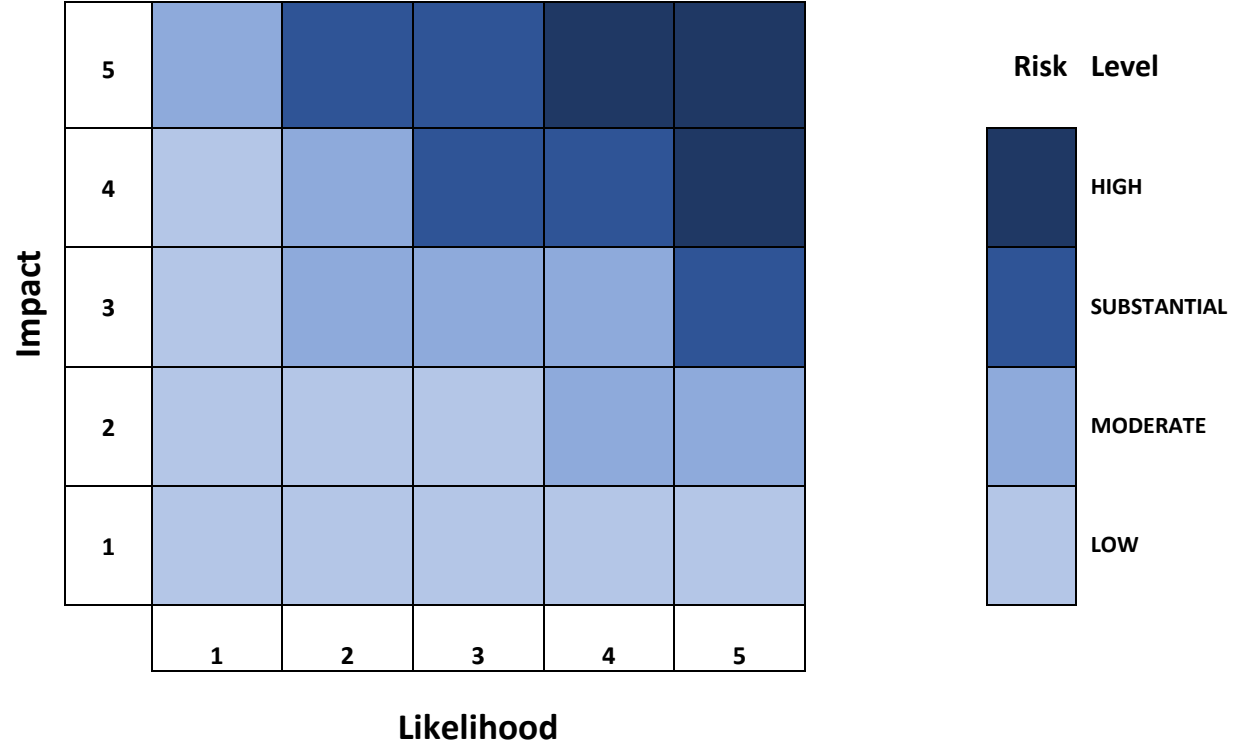


## Annex II. Risk Matrix

Project Title: Air Quality for Better Citizen's Health					Project Number: 01001653		Date: 01-Dec-23	
#	Event	Cause	Impact(s)	Risk Category and Sub-category (including Risk Appetite)	Impact, Likelihood & Risk Level (see Annex 3 Risk Matrix)	Risk Valid From/To	Risk Owner (individual accountable for managing the risk)	Risk Treatment and Treatment Owner
1	There is a risk of weak cooperation between parallel donor assistance projects to develop AQ monitoring and regulation capacities	As a result of weak coordination mechanism and low interest from parallel project to be engaged in	Which will impact in...	<b>7. STRATEGIC (7.3. Stakeholder relations and partnerships) - UNDP Risk Appetite: OPEN TO SEEKING</b>	Likelihood: <b>2 - Low likelihood</b>  Impact: <b>2 - Minor</b>  Risk level: <b>LOW (equates to a risk appetite of MINIMAL)</b>		Project Board, UNDP, MEPA,	Risk Treatment 1.1:UNDP and MEPA will invite all relevant donor project representatives to participate in the Inception Workshop and extended PB meetings as well as in activity-specific multi-stakeholder meetings and consultations. Constant communication lines will be established with relevant donor projects' consultants, and data and information will be exchanged with them. Working level coordination groups might also be considered on specific activities ...  Risk Treatment Owner: UNDP and MEPA
2	There is a risk that GoG (MEPA/NEA) does not have capacity to provide proper O/M for received equipment and software and maintain trained staff for longer periods	As a result of low interest, capacity and ownership	Which will impact in unsustainability of results	<b>4. ORGANIZATIONAL (4.2. Execution capacity) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	Likelihood: <b>2 - Low likelihood</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>		MEPA, Project Board, UNDP	Risk Treatment 2.1: UNDP will negotiate allocation of resources for O/M of equipment with MEPA/NEA as part of LoA and will monitor this commitment periodically Risk Treatment Owner: UNDP, MEPA
3	There is a risk of natural hazards and disasters (e.g. floods, earthquakes, pandemic, etc.)	As a result of natural calamities, low coping capacities and poor preparedness and response	Which will impact in failure of the project	<b>1. SOCIAL AND ENVIRONMENTAL (1.5. Climate change and disaster risks) - UNDP Risk Appetite: CAUTIOUS</b>	Likelihood: <b>3 - Moderately likely</b>  Impact: <b>3 - Intermediate</b>		MEPA, UNDP	Project team, together with UNDP CO staff will closely monitor risk log and together with NEA/MEPA will prepare a contingency plan for management/mitigation of impacts of the force majeure situation

					Risk level: <b>MODERATE</b> (equates to a risk appetite of <b>EXPLORATORY</b> )			Risk Treatment Owner: UNDP and MEPA
4	There is a risk that sufficient and reliable environmental health and AQ data is not available	As a result of poor AQ monitoring and assessment including environmental health assessment system	Which will impact in lower quality assessments and recommendations	<b>4. ORGANIZATIONAL (4.5. Monitoring and oversight) - UNDP</b> <b>Risk Appetite: EXPLORATORY TO OPEN</b>	Likelihood: <b>3 - Moderately likely</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>MODERATE</b> (equates to a risk appetite of <b>EXPLORATORY</b> )	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	Risk Treatment 7.1: Project team composed of UNDP, WHO and UNECE experts will collect all available data (both measures and estimated) from various sources, including open sources and use for pilot application of environmental health and GESI tools Risk Treatment Owner: UNDP, WHO and UNECE experts
5	There is a risk that Industries are not interested to engage in BAT-related activities	As a result low/no knowledge, interest and capacity	Which will impact in successful implementation of BAT project and its replication	<b>5. REPUTATIONAL (5.2. Engagement with private sector partnership) - UNDP</b> <b>Risk Appetite: CAUTIOUS</b>	Likelihood: <b>3 - Moderately likely</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>MODERATE</b> (equates to a risk appetite of <b>EXPLORATORY</b> )	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	From: 01-Nov-23  To: 31-Oct-27	Risk Treatment 8.1: MEPA jointly with project team, composed of UNDP and UNECE experts will conduct knowledge and capacity building activities for industries; will carry out a feasibility study, identify potential businesses willing and interested to introduce BAT on a cost-sharing basis, jointly with MEPA and MoESD conduct close consultations and negotiations with them and agree upon a cost-sharing amount and

								modality. The results of the BAT pilot will be shared with other local industries for replication. Risk Treatment Owner: UNDP and UNECE; MEPA, MoESD.
6	There is a risk that introduction of BAT incentive delayed/BAT incentives are not legally introduced	As a result of low interest and no/low commitment to create enabling environment for BAT implementation	Which will impact in successful implementation of BAT project and its replication	<b>7. STRATEGIC (7.5. Government commitment) - UNDP Risk Appetite: OPEN TO SEEKING</b>	Likelihood: <b>3 - Moderately likely</b>  Impact: <b>4 - Extensive</b>  Risk level: <b>SUBSTANTIAL (equates to a risk appetite of OPEN)</b>	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	From: 01-Nov-23  To: 31-Oct-27	Risk Treatment 9.1: MEPA jointly with project team, composed of UNDP and UNECE experts will carry out broad consultations with both key decision-makers and industry representatives on potential benefits of the incentives as well as on challenges, using various mechanisms, including a Parliamentary Committees on Environment and Economy. Risk Treatment Owner: UNDP and UNECE; MEPA, MoESD.
7.	There is a risk that private sector is not aware/acceptive of BAT incentives introduced and do not use them	As a result of low knowledge and awareness of industries on BAT incentives	Which will impact in no replication and upscaling of BAT application	<b>4. ORGANIZATIONAL (4.6. Knowledge management) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	Likelihood: <b>4 - Highly likely</b>  Impact: <b>4 - Extensive</b>  Risk level: <b>SUBSTANTIAL (equates to a risk appetite of OPEN)</b>	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	Risk Treatment 10.1: MEPA jointly with project team, composed of UNDP and UNECE experts and in cooperation with MEPA and MoESD will conduct knowledge and capacity building activities for industries as well as will engage them in a dialogue/consultations on BAT incentives Risk Treatment Owner: UNDP and UNECE; MEPA, MoESD
8.	There is a risk that stakeholder engagement is weak	As a result of low interest	Which will impact in low stakeholder engagement and reaching agreements on critical issues, discussed	<b>7. STRATEGIC (7.3. Stakeholder relations and partnerships) - UNDP Risk Appetite: OPEN TO SEEKING</b>	Likelihood: <b>3 - Moderately likely</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>	From: 01-Nov-23  To: 31-Oct-27 From: 01-Nov-23  To: 31-Oct-27	Project Board, Project, UNDP,	Risk Treatment 11.1: UNDP and MEPA will conduct detailed mapping of stakeholders, discuss the project and its benefits with them and mobilize to participate in multi-stakeholder meetings and/or platforms; Meetings will be facilitated by MEPA and project experts to reach agreements on various critical issues. Risk Treatment Owner: UNDP, MEPA.



### Annex III - Social and Environment Screening Template

#### Project Information

Project Information	
1. Project Title	Air Quality for Better Citizen's Health
2. Project Number	<b>01001653</b>
3. Location (Global/Region/Country)	Georgia

#### Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the Project mainstreams the human-rights based approach

The project is designed based on human rights-based approach, aiming at enhancing the knowledge and system, institutional and staff-level capacities of the “duty-bearers” (relevant Ministries and industries, e.g. Ministry of Environmental Protection and Agriculture, National Centre of Disease Control under the Ministry of Health) to meet their obligations (AQ monitoring, modelling, forecasting, data calibration, QA/QC, regulation of industrial emissions and of the “rights-holders” (civil society organization, individual citizens and overall, general public) to claim their rights (access to AQ and AQ health information) in line with key provisions of UN Universal Declaration of Human Rights (e.g. article 23 (2), 19 and 23).

The project itself serves to enhance legal-regulatory basis, infrastructure, knowledge and implementation capacities of key decision makers and other stakeholders in AQ monitoring, assessment and regulation of industrial emissions in order to attain the broader impact of improved AQ quality and thus, public health in Georgia. This will be achieved through development of gender-responsive regulations, introduction and application of internationally accepted technical and environmental standards, decision-making support tools (AQ modelling and forecasting tools, environmental health assessment tools, gender mainstreaming and social inclusion tools, etc.), good practices and environmentally friendly technologies and processes as well as through application of transparent and participatory approaches for decision-making. More specifically, all project components embed environmental, health and safety requirements, including incorporation of environmental and health safeguards in learning and training materials, proper installation and operation and maintenance of AQ monitoring, laboratory testing and calibration equipment, as well as the equipment necessary for implementation of BAT; development of green public procurement criteria, and respective BAT-based regulations, design of environmental and social safeguards criteria for demo projects. Ultimately, all these will contribute to enhanced social and economic rights as well as human security rights of Georgian people (articles 3 and 23) to live in cleaner and safer environment and maintain personal health and security. Furthermore, the project will use highly participatory and inclusive approaches in each of the project activity and will strongly promote participation of female experts/industry representatives/service providers/decision-makers in almost every activity, with women participation rate being considered as one of the key success indicators.

The project will contribute greatly to the improvement of air quality and AQ related environmental health information and will contribute significantly to informed decision-making in favor of vulnerable to air pollution groups (e.g. children, elderly, people with poor health conditions, pregnant women ultimately leading to better protection of Georgian population and in particular, disadvantaged/vulnerable to air pollution social groups. Moreover, the project will ensure participation of various sector representatives in project activities and project decisions through Project Steering Committee (PSC) meetings, ad-hock working group meetings, general and/or tailor-made consultations, workshops/trainings and information activities through the use both printed and electronic means for dissemination of information across the country that will improve the access to information and know-how by broader public and its right to environmental information.

Briefly describe in the space below how the Project is likely to improve gender equality and women’s empowerment

The Project intends to implement a set of activities to enhance knowledge and implementation capacities of key stakeholders in AQ monitoring and assessment, including gender-responsive AQ health assessment, and regulation of industrial emissions. This will ultimately contribute to the improved public health of Georgia. The project will benefit entire Georgian population and in particular, people living in densely populated and heavily polluted urban areas. Of these people, disadvantaged groups: people with poor health conditions, elderly, children and the pregnant women are the most vulnerable to ambient air pollution. Epidemiological studies strongly indicate that short-term acute and long-term chronic exposure to air pollutants lead to such diseases as a stroke, ischemic health diseases, chronic obstructive pulmonary diseases, pneumonia, and lung cancer. Moreover, maternal exposure to air pollutants is strongly correlated with aggravation of reproductive health, including low birth weight, stillbirth and small for gestational age births. According to WHO, a growing body of evidence also suggests that air pollution may affect diabetes and neurological development in children.

Keeping in mind a strong link between air pollution and gender aspects of environmental health, as well as exiting challenges related to gender mainstreaming in environmental protection in general and AQ management in particular (absent gender equality framework and a tools, including a checklist in AQ management, poor/absent knowledge and implementation capacities in gender equality/mainstreaming and in assessing AQ health an related gender aspects, a separate project output/key result (output 2) with associated two activities is dedicated to gender equality and social inclusion in AQ management. Under it, GESI and EH frameworks and practical tools, including checklist will be developed/adapted, that will be followed by building knowledge and implementation capacities of central and local authorities as well as other stakeholders (e.g. environmental and health NGOs, etc.) in practical application of these tools. This will serve as effective means for gender and social mainstreaming in AQ and environmental health management processes after the project completion.

Concerning gender balance, the project will ensure equal participation of both male and female stakeholders in all project activities, including trainings/workshops, a study tour, stakeholder consultations, awareness and promo actions, with female participation rate considered as one of the success indicators for the project.

In general following gender mainstreaming tools will be applied by the Project:

- gender-responsive capacity building – attention will be paid to the engagement of women experts in developing training/educational materials, serve as trainers and/or participate in trainings.
- gender responsive knowledge management – equal access to information by women and men including those from disadvantaged groups (e.g. elderly, pregnant women, people with disabilities, etc.) will be ensured, through providing equal access to training and awareness material including through online means. Furthermore, awareness campaigns will equally target both sexes to multiply the effect.
- documents developed under the project will be gender responsible at the maximum level possible, through incorporating gender and social inclusion aspects in technical reports (e.g. feasibility studies on BAT and BAT incentive studies), and training and awareness materials
- gender responsive human resources management – efforts will be made to encourage women to apply and keep a track of the number and percentage of male and female consultants/experts/technical assistants recruited through the project.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The project itself serves to enhance enabling environment for AQ management and, knowledge and implementation capacities of relevant decision-makers and other stakeholders in AQ monitoring and assessment and regulation of industrial emissions, contributing to overall environmental sustainability of the country. Environmental mainstreaming will be done in a following way:

- improvement of knowledge and infrastructure for air quality monitoring and assessment;
- equipping relevant authorities with state-of-the-art decision-support tools, including AQ modelling and forecasting tools, environmental health assessment tools, data quality management digital tools
- providing financial incentives and technical support to pilot industry representative to retrofit their technologies into more environmentally friendly technologies, based on EU-standard based Best Available Techniques (BATs);
- strengthening knowledge and capacities of regulators, environmental enforcement officers and industry representatives in regulation and control of industrial emissions and implementation of BATs in their respective industrial facilities;
- providing regulatory and policy support (BAT incentives) to decision-makers in regulation of industrial emissions.

Specific environmental sustainability mainstreaming means/tools to be used by the project are as follows: carrying out of number of feasibility studies, development and facilitation of adoption of BAT-based regulations on industrial emissions; incorporation of environmental and safety aspects into training and learning modules, trainings of operators of AQ monitoring, laboratory testing and calibration equipment in proper O/M and repair of equipment; development of green public procurement criteria, design and application of environmental and social safeguards criteria for pilot projects, awareness raising, trainings, study tours, networking with EU community of practice bodies and platforms (e.g. AQUILA, EU member state agencies and national reference laboratories, etc.)



**Part B. Identifying and Managing Social and Environmental Risks**

QUESTION 2: What are the Potential Social and Environmental Risks? Note: Complete SESP Attachment 1 before responding to Question 2.	QUESTION 3: What is the level of significance of the potential social and environmental risks? Note: Respond to Questions 4 and 5 below before proceeding to Question 6			QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High
<b>Risk Description (broken down by event, cause, impact)</b>	<b>Impact and Likelihood (1-5)</b>	<b>Significance (Low, Moderate, Substantial, High)</b>	<b>Comments/Assumptions</b>	<b>Description of assessment and management measures for risks rated as Moderate, Substantial or High</b>
<b>Risk 1:</b> There is a risk of accidents during installation and O/M of AQ monitoring, laboratory testing and calibration equipment	I=3 L=2	<b>Moderate</b>	No accidents happen during installation and O/M of AQ monitoring, laboratory testing and calibration equipment	NEA will follow SOPs/instructions for proper operations, maintenance and calibration of equipment and will be periodically monitored by project team, composed of UNDP and UBA experts
<b>Risk 2:</b> There is a risk of industrial accident related to BAT implementation  As a result of improper installation and operations of equipment and no adherence to health and safety standards  Which will impact in aggravation of occupational health and safety of personnel/operators	I = 3 L = 2	<b>Moderate</b>	No industrial accidents happen during BAT pilot implementation	Social and Environmental Screening (SES) of the project has been conducted during the project design phase which is attached to this project document (Annex III). Given the scope and specifications of the pilot BAT project was unknown during project preparatory phase, the project team, composed of UNDP and UNECE experts will screen all potential Environmental and Social impact during the pilot BAT project design, based on the project specifications and will develop project-specific environmental and social management plan (SEMP), based on filled in SESP and Social and Environmental Safeguard Policy, incorporate this plan in agreement(s) with the target industrial facility (facilities) as part of terms and conditions and periodically monitor its implementation Risk.
<b>Risk 3:</b> There is a risk of accidental releases  As a result of improper installation and/or O/M of BAT	I = 2 L = 2	<b>Low</b>	No accidental releases occur during implementation of BAT in a pilot industrial facility (ies)	Social and Environmental Screening (SES) of the project has been conducted during the project design phase which is attached to this project document (Annex III). Given the scope and specifications of the pilot BAT project was unknown during project preparatory phase, the project team, composed of UNDP and UNECE

<p>equipment during BAT project implementation</p> <p>Which will impact in environmental pollution</p>				<p>experts will screen all potential Environmental and Social impact during the pilot BAT project design, based on the project specifications and will develop project-specific environmental and social management plan (SEMP), based on filled in SESP and Social and Environmental Safeguard Policy, incorporate this plan in agreement(s) with the target industrial facility (facilities) as part of terms and conditions and periodically monitor its implementation Risk.</p>												
<b>QUESTION 4: What is the overall project risk categorization?</b>																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;"><i>Low Risk</i></td> <td style="width: 20%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="text-align: center;"><i>Moderate Risk</i></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td style="text-align: center;"><i>Substantial Risk</i></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;"><i>High Risk</i></td> <td></td> <td></td> </tr> </table>					<i>Low Risk</i>			<i>Moderate Risk</i>	X		<i>Substantial Risk</i>			<i>High Risk</i>		
<i>Low Risk</i>																
<i>Moderate Risk</i>	X															
<i>Substantial Risk</i>																
<i>High Risk</i>																
<b>QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)</b>																
<p>Question only required for Moderate, Substantial and High Risk projects</p>																
<p><b><u>Is assessment required? (check if "yes")</u></b></p> <p><i>if yes, indicate overall type and status</i></p>	<input type="checkbox"/>			<b>Status? (completed, planned)</b>												
			<input type="checkbox"/> Targeted assessment(s)													
			<input type="checkbox"/> ESIA (Environmental and Social Impact Assessment)													
<p><b><u>Are management plans required? (check if "yes")</u></b></p> <p><i>If yes, indicate overall type</i></p>	<input type="checkbox"/>		<input type="checkbox"/> Targeted management plans (e.g. Gender Action Plan, Emergency Response Plan, Waste Management Plan, others)													
			<input checked="" type="checkbox"/> ESMP (Environmental and Social Management Plan which may include range of targeted plans)	Depending on the type of industrial plant selected for												

					BAT pilot, there might be need for ESMP
		<input type="checkbox"/>	ESMF (Environmental and Social Management Framework)		
<b>Based on identified risks, which Principles/Project-level Standards triggered?</b>			<b>Comments (not required)</b>		
<b>Overarching Principle: Leave No One Behind</b>					
<b>Human Rights</b>		<input type="checkbox"/>			
<b>Gender Equality and Women's Empowerment</b>		<input type="checkbox"/>			
<b>Accountability</b>		<input type="checkbox"/>			
<b>1. Biodiversity Conservation and Sustainable Natural Resource Management</b>		<input type="checkbox"/>			
<b>2. Climate Change and Disaster Risks</b>		<input type="checkbox"/>			
<b>3. Community Health, Safety and Security</b>		<input type="checkbox"/>			
<b>4. Cultural Heritage</b>		<input type="checkbox"/>			
<b>5. Displacement and Resettlement</b>		<input type="checkbox"/>			
<b>6. Indigenous Peoples</b>		<input type="checkbox"/>			
<b>7. Labour and Working Conditions</b>		<input type="checkbox"/>			
<b>8. Pollution Prevention and Resource Efficiency</b>		<input type="checkbox"/>			

## SESP Attachment 1. Social and Environmental Risk Screening Checklist

<b>Checklist Potential Social and Environmental Risks</b>		
<b>INSTRUCTIONS:</b> The risk screening checklist will assist in answering Questions 2-6 of the Screening Template. Answers to the checklist questions help to (1) identify potential risks, (2) determine the overall risk categorization of the project, and (3) determine required level of assessment and management measures. Refer to the <a href="#">SES toolkit</a> for further guidance on addressing screening questions.		
<b>Overarching Principle: Leave No One Behind</b>		<b>Answer (Yes/No)</b>
<b>Human Rights</b>		
P.1	Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
P.2	Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?	No
P.3	Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?	No
<i>Would the project potentially involve or lead to:</i>		No
P.4	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
P.5	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities? <sup>50</sup>	No
P.6	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?	No
P.7	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	No
<b>Gender Equality and Women's Empowerment</b>		
P.8	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
<i>Would the project potentially involve or lead to:</i>		No
P.9	adverse impacts on gender equality and/or the situation of women and girls?	No
P.10	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
P.11	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	No

<sup>50</sup> Prohibited grounds of discrimination include race, ethnicity, sex, age, language, disability, sexual orientation, gender identity, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender and transsexual people.

	<i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	
P.12	exacerbation of risks of gender-based violence? <i>For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.</i>	No
<b>Sustainability and Resilience:</b> Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below		
<b>Accountability</b>		
<i>Would the project potentially involve or lead to:</i>		No
P.13	exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?	No
P.14	grievances or objections from potentially affected stakeholders?	No
P.15	risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?	No
<b>Project-Level Standards</b>		
<b>Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management</b>		
<i>Would the project potentially involve or lead to:</i>		No
1.1	adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	No
1.2	activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	risks to endangered species (e.g. reduction, encroachment on habitat)?	No
1.5	exacerbation of illegal wildlife trade?	No
1.6	introduction of invasive alien species?	No
1.7	adverse impacts on soils?	No
1.8	harvesting of natural forests, plantation development, or reforestation?	No
1.9	significant agricultural production?	No

1.10	animal husbandry or harvesting of fish populations or other aquatic species?	No
1.11	significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.12	handling or utilization of genetically modified organisms/living modified organisms? <sup>51</sup>	No
1.13	utilization of genetic resources? (e.g. collection and/or harvesting, commercial development) <sup>52</sup>	No
1.14	adverse transboundary or global environmental concerns?	No
<b>Standard 2: Climate Change and Disaster Risks</b>		
<i>Would the project potentially involve or lead to:</i>		No
2.1	areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunami or volcanic eruptions?	No
2.2	outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters? <i>For example, through increased precipitation, drought, temperature, salinity, extreme events, earthquakes</i>	No
2.3	increases in vulnerability to climate change impacts or disaster risks now or in the future (also known as maladaptive or negative coping practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No
2.4	increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	No
<b>Standard 3: Community Health, Safety and Security</b>		
<i>Would the project potentially involve or lead to:</i>		
3.1	construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)	No
3.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	No
3.3	harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	No
3.5	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.6	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No
3.7	influx of project workers to project areas?	No

<sup>51</sup> See the [Convention on Biological Diversity](#) and its [Cartagena Protocol on Biosafety](#).

<sup>52</sup> See the [Convention on Biological Diversity](#) and its [Nagoya Protocol](#) on access and benefit sharing from use of genetic resources.

3.8	engagement of security personnel to protect facilities and property or to support project activities?	No
<b>Standard 4: Cultural Heritage</b>		
<i>Would the project potentially involve or lead to:</i>		
4.1	activities adjacent to or within a Cultural Heritage site?	No
4.2	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No
4.3	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.4	alterations to landscapes and natural features with cultural significance?	No
4.5	utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No
<b>Standard 5: Displacement and Resettlement</b>		
<i>Would the project potentially involve or lead to:</i>		
5.1	temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No
5.2	economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	risk of forced evictions? <sup>53</sup>	No
5.4	impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
<b>Standard 6: Indigenous Peoples</b>		
<i>Would the project potentially involve or lead to:</i>		
6.1	areas where indigenous peoples are present (including project area of influence)?	No
6.2	activities located on lands and territories claimed by indigenous peoples?	No
6.3	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?  <i>If the answer to screening question 6.3 is “yes”, then the potential risk impacts are considered significant and the project would be categorized as either Substantial Risk or High Risk</i>	No

<sup>53</sup> Forced eviction is defined here as the permanent or temporary removal against their will of individuals, families or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. Forced evictions constitute gross violations of a range of internationally recognized human rights.

6.4	the absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 5 above</i>	No
6.7	adverse impacts on the development priorities of indigenous peoples as defined by them?	No
6.8	risks to the physical and cultural survival of indigenous peoples?	No
6.9	impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.</i>	No
<b>Standard 7: Labour and Working Conditions</b>		
<i>Would the project potentially involve or lead to: (note: applies to project and contractor workers)</i>		
7.1	working conditions that do not meet national labour laws and international commitments?	No
7.2	working conditions that may deny freedom of association and collective bargaining?	No
7.3	use of child labour?	No
7.4	use of forced labour?	No
7.5	discriminatory working conditions and/or lack of equal opportunity?	No
7.6	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	Yes
<b>Standard 8: Pollution Prevention and Resource Efficiency</b>		
<i>Would the project potentially involve or lead to:</i>		
8.1	the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
8.2	the generation of waste (both hazardous and non-hazardous)?	No
8.3	the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	No
8.4	the use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the <a href="#">Montreal Protocol</a>, <a href="#">Minamata Convention</a>, <a href="#">Basel Convention</a>, <a href="#">Rotterdam Convention</a>, <a href="#">Stockholm Convention</a></i>	No
8.5	the application of pesticides that may have a negative effect on the environment or human health?	No
8.6	significant consumption of raw materials, energy, and/or water?	No



## Annex\_IV – Project Board TOR

# UNDP Standard Terms of Reference (ToR) for the Project Board

## “Air Quality for Better Citizen’s Health”

Project Number: 01001653

### I. Background

All UNDP projects are governed by a multi-stakeholder board or committee established to review performance based on established monitoring and evaluation metrics and high-level implementation issues to ensure quality delivery of results. For the purpose of this ToR and to ensure standardization, henceforth, as regards project documentation, such a body shall only be referred to by the name: ‘Project Board’. The Project Board is the most senior, dedicated oversight body for a UNDP ‘Development Project’, which is an instrument where UNDP “Delivers outputs where UNDP has accountability for design, oversight and quality assurance of the entire project.”

### II. Duties and Responsibilities

The two prominent (mandatory) roles of the Project Board are as follows:

1. **High-level oversight of the project** This is the primary function of the Project Board. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, monitoring missions' reports, evaluations, risk logs, quality assessments, and the combined delivery report. The Project Board is the main body responsible for taking corrective actions as needed to ensure the project achieves the desired results. And its function includes oversight of annual (and as-needed) assessments of any major risks to the programme or project, and related decisions/agreements on any management actions or remedial measures to address them effectively.

The Project Board also carries the role of quality assurance of the project taking decisions informed by, among other inputs, the project quality assessment. In this role the Board is supported by the quality assurer, whose function is to assess the quality of the project against the corporate standard criteria. This function is performed by a UNDP programme or monitoring and evaluation officer to maintain independence from the project manager regardless of the project’s implementation modality.

The Project Board reviews updates to the project risk log.

2. **Approval of key project execution decisions** The Project Board has an equally important, secondary role in approving certain adjustments above provided tolerance levels, including substantive programmatic revisions (major/minor amendments), budget revisions, requests for suspension or extension and other major changes (subject to additional funding partner/donor requirements).

The Project Board is responsible for making management decisions by consensus when required, including the approval of project plans and revisions, and the project manager’s tolerances. The Project Board approves annual work plans and reviews updates to the project risk log.

Within the overall governance and management arrangements of the project, the role of the Project Board as regards these two key functions (*‘High-level oversight of the project’* and *‘Approval of key project execution decisions’*) is distinct from the roles of entities involved in the implementation of the project, namely the implementing partner (IP), responsibilities parties (if applicable), service providers and project staff.

Specific responsibilities of the Project Board include the following:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints, and promote gender equality and social inclusion (LNOB) in the project implementation;
- Review project performance based on monitoring, evaluation and reporting, including standard quality assurance checks, progress reports, risk logs, spot checks/audit reports and the combined delivery report;
- Address any high-level project issues as raised by the project manager and project assurance;
- Provide guidance on emerging and/or pressing project risks and agree on possible mitigation and management actions to address specific risks (including ensuring compliance with UNDP's Social and Environmental Standards, Fraud/corruption, Sexual Exploitation and Abuse and Sexual Harassment);
- Agree or decide on project manager's tolerances as required, within the parameters set by UNDP ([Manage Change](#) in the PPM) and the donor, and provide direction and decisions for exceptional situations when the project manager's tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by UNDP and the donor;
- Agree or decide on a project suspension or cancellation, if required; (note that for GEF and GCF projects it is UNDP that decides to suspend or cancel and project and the Project Board is informed/consulted only).
- Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily according to plans.
- Receive and address project level grievance, including overseeing whatever specific compliance and stakeholder response (or grievance) mechanisms have been put in place so that individuals and communities potentially affected by the project have access to effective mechanisms and procedures for raising concerns about the social and environmental performance of the project<sup>54</sup>.
- Engage in the low value grant selection process where there is no Grant Selection Committee, as guided by the [Low Value Grants – UNDP Operational Guide](#).

Additional responsibilities of the Project Board can include, but are not limited to, the following:

- Act as an informal consultation mechanism for stakeholders;
- Review the final project report package during an end-of-project review meeting to discuss lessons learned and opportunities for scaling up;
- Set up tolerance levels for project stages in terms of time and financial resources
- Reviews and clears Annual Work Plan (AWP)
- Based on the approved annual work plan (AWP), reviews and approves project plan and authorize any major deviation from these agreed stage plan. The PEB will evaluate submitted documents and be in charge of approving plans and budgets.
- Arbitrates any conflicts within the project or negotiates a solution to any problems between the project and external bodies;
- Discuss issues/risks to the project implementation and makes decision for any required follow up

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<sup>54</sup> The responsibilities of the board in this regard should follow UNDP's Social and Environmental Standards (SES) as codified in the PPM. It should be noted that while a project board can play a role in addressing or assisting with the compliance and stakeholder response (or grievance) mechanisms put in place for a given project (as part of their quality assurance and oversight function), this will be in addition to and does not substitute for UNDP's core responsibility to ensure compliance with the SES throughout the project management cycle as part of UNDP's Programming Quality Assurance system.

### III. Composition of the Project Board

As noted in the diagram under section: Governance and Management arrangements (page 55 of this project document), Project Board has three categories of formal members (e.g. voting members). The role of every formal Project Board member corresponds to one of these three roles.

The three categories of Project Board members are the following:

- 1) **The Executive:** UNDP, at least at Deputy Resident Representative level, and MEPA through National Project Director (NPD), represented by the First Deputy Minister will perform a Project Executive role in the PB and will co-chair it. The NPD will represent the primary owner of the project. In her absence the head of the AAD, will play an ex-officio PB chairman's role. *Executive represents ownership of the project and chairs (or co-chairs) the Project Board. The executive usually is the most senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner) and it must be UNDP for projects that are direct implementation (DIM). The executive is ultimately responsible for the project, supported by the Senior User/Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its outputs. The Executive has to ensure that the project has a cost-conscious approach, balancing the demands of the user (or beneficiary) and supplier.*
- 2) **Beneficiary Representative(s):** Representatives of NEA/MEPA, MoESD, MoF and NCDC will play a Senior User's role in the PB, representing the interests of key beneficiaries. Their primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. *Represents the interests of those groups of stakeholders who will ultimately benefit from the project. Beneficiary is responsible for specification of the needs of all those who will be primarily using or benefiting from the project outputs, for user liaison with the project team and for monitoring that the solution will meet those needs. Their primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries.*
- 3) **Development Partner/Supplier(s):** Representatives of EUD, UNDP Georgia (at least at the Deputy Resident Representative Level), UNECE, WHO and UBA will perform the Senior Supplier's role in the Board, representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. EU EPFACC and Health and Green complementary project on AQ planning and vehicle emissions to be implemented by a Consortium of Slovak and Spanish agencies with similar outputs will be invited to extended PB meetings in order to better coordinate the activities and achieve better synergies. Upon demand, expansion of the PB may be considered to include other Line Ministries and stakeholders. *Individuals representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project<sup>55</sup>. The Senior Supplier is accountable for the quality of the outputs delivered by the supplier(s). The Senior Supplier role must have the authority to commit or acquire supplier resources required.*

### IV. Standard Project Board Protocols

This Project Board will meet at least once a year;

Project Board members cannot receive remuneration from project funds for their participation in the Board. However, it is allowable for board members to be reimbursed from project funds for certain reasonable, qualified expenses related to travel or lodging to attend board meetings.

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<sup>55</sup> With the exception of responsible parties or any firms/entities engaged by the project to provide technical expertise with project funds

Project Board decisions are made by unanimous consensus. If a consensus cannot be reached within the Board, the final decision shall rest with the UNDP representative on the Project Board or a UNDP staff member with delegated authority as the programme manager.<sup>56</sup>

It is required that as per internationally recognized professional standards and principles of sound governance, conflicts of interest affecting board members in performing their duties must be formally disclosed if not avoidable. Where a board member has a specific personal conflict of interest with a given matter before the board, he/she must recuse oneself from their participation in a decision. No board member can vote or deliberate on a question in which he/she has a direct personal or pecuniary interest not common to other members of the board.

## V. Standard Outputs of Project Board Meetings

In its oversight function, the Project Board will (at a minimum) review and assess the following project-related evidence at each meeting:

- Assessment of project progress to date against project output indicators (as documented in the project document results framework)
- Approval/review of annual work plans
- Assessment of the relevant Monitoring & Evaluation mechanisms, including all evaluations<sup>57</sup>
- Review and assessment of the Project Risk Log (with updating/amendments as needed)
- Assessment of project spending, based on a review of the combined delivery report

This will be in addition to the review and approval of any required project execution decisions.

The output of every Project Board should be a written record (minutes) that captures the agenda and issues discussed and the agreed upon action items and decisions (if applicable). Each report should clearly document the members attending the meeting (as well as all participants in the meeting) and the modality used to agree on a certain action or decision (whether formal voting or no-objection or other mechanism). All records of board meetings should be documented and kept by UNDP in their quality assurance function (see next section).

## I. Support Functions to the Project Board

There are two main entities/functions outside the Project Board structure whose role is to report to the Project Board and support board members in effectively fulfilling their roles: project assurance and project management.

Project Assurance: Project assurance is the responsibility of each Project Board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including applying UNDP's social and environmental management system to ensure the SES are applied through the project cycle. The Project Board cannot delegate any of its quality assurance responsibilities to the project manager.

A designated representative of UNDP playing the project assurance role is expected to attend all Project Board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meetings and provide board members with the required documentation required to perform their duties.

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<sup>56</sup> UNDP has this special right since the ultimate legal and fiduciary accountability for a UNDP project, irrespective of modality, rests with UNDP and UNDP must (in line with its obligations to donors and to the Executive Board) be able to ensure that no action is taken by any body in a UNDP project that contravenes UNDP rules and regulations.

<sup>57</sup> Including audit reports and spot checks.

The UNDP representative playing the main project assurance function is: *Nino Antadze/Team Leader, Energy & Environment Portfolio, UNDP Georgia*. This function will also be fulfilled by Programme Associate, Energy & Environment Portfolio, as well as UNDP Georgia and M&E Officer.

Project Support, this function is often covered by the Project Management Unit: The Project Manager (PM) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the Board for review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk logs.

A designated representative of the PMU is expected to attend all board meetings and present the required progress reports and other documentation needed to support board processes as a non-voting representative.

The primary PMU representative attending board meetings is: Project Manager and Project Admin/Finance.Associate.

**Acknowledgement of this ToR by each designated official Project Board member will be done during First Project Board Meeting.**

## **Annex\_V - STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES**

Dear Mr. Shamugia,

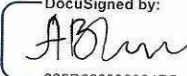
1. Reference is made to consultations between officials of Government of Georgia (hereinafter referred to as “Government”) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant project document, as described below.
2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP country office may provide the following support services for the activities of the project:
  - (a) Identification and/or recruitment of personnel;
  - (b) Identification and facilitation of training activities;
  - (c) Procurement of goods and services;
4. The procurement of goods and services and the recruitment of personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of the programme the annex to the Agreement is revised with the mutual agreement of the UNDP resident representative and the Ministry of Economy and Sustainable Development of Georgia.
5. The relevant provisions of the *UNDP standard basic assistance agreement with Republic of Georgia* (the “SBAA”) signed on 1-Jul-1994, including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the document.
6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.
7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the document.
8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.



9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between the Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

DocuSigned by:  
  
989D633936364D5

Signed on behalf of UNDP  
Anna Chernyshova  
Deputy Resident Representative

  
For the Government of Georgia  


Otar Shamugia  
Minister of Environmental Protection and Agriculture of Georgia

Date: 22-Jan-2024

Attachment

**DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES**

1. Reference is made to consultations between the Ministry of Environmental Protection and Agriculture of Georgia, the institution designated by the Government of Georgia and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed Project “Air Quality for Better Citizen’s Health” (#01001653), “the Project”.

2. In accordance with the provisions of the letter of agreement signed on 26-Dec-2023 and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

Support services (insert description)	Schedule for the provision of the support services	Amount and method of reimbursement of UNDP (where appropriate)
1. Payments, disbursements and other financial transactions	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
2. Recruitment of staff, project personnel and consultants	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
3. Procurement of services and goods, including disposal	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
4. Organization of training activities, conferences and workshops, including fellowships	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
5. Travel authorization, visa requests, ticketing, and travel arrangements	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
6. Shipment, custom clearance, vehicle registration, and accreditation	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
7. Shipment, custom clearance, vehicle registration, and accreditation	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List
8. Supervision of project implementation, monitoring and assistance in project evaluations	2023-2027	Cost-recovery for ISS based on UNDP Universal Price List

4. Description of functions and responsibilities of the parties involved:

UNDP will provide support services to Government as described in the paragraph 3 above in accordance with UNDP rules and procedures; it retains ultimate accountability for the effective implementation of the Project activities;

UNDP will be responsible for the provision of all Project inputs upon a formal request from Government. It will be responsible for administering resources in accordance with the specific objectives, and in keeping with the key principles of transparency, competitiveness, efficiency and economy. The financial management and accountability for the resources allocated, as well as other activities related to the execution of the Project activities will be undertaken under the direct supervision of the UNDP Country Office.

Government will review and clear Annual Work Plans (AWP) and annual progress achieved through Annual Project Reviews based on the approved annual work plans and sign Combined Delivery Reports (CDRs) by the end of each quarter.