



## Capacity-building to establish an integrated and enhanced transparency framework in Uzbekistan to track the national climate actions and support measures received

### Part I: Project Information

**GEF ID**

10772

**Project Type**

MSP

**Type of Trust Fund**

GET

**CBIT/NGI**

CBIT **Yes**

NGI **No**

**Project Title**

Capacity-building to establish an integrated and enhanced transparency framework in Uzbekistan to track the national climate actions and support measures received

**Countries**

Uzbekistan

**Agency(ies)**

FAO

**Other Executing Partner(s)**

Centre of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet)

**Executing Partner Type**

Government

**GEF Focal Area**

Climate Change

**Taxonomy**

Focal Areas, Climate Change, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Financing, Renewable Energy, Energy Efficiency, Climate Change Adaptation, Mainstreaming adaptation, National Adaptation Plan, Climate information, National Adaptation Programme of Action, United Nations Framework Convention on Climate Change, Enabling Activities, Nationally Determined Contribution,

Influencing models, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Stakeholders, Civil Society, Non-Governmental Organization, Academia, Communications, Awareness Raising, Education, Type of Engagement, Information Dissemination, Consultation, Participation, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Knowledge Generation, Knowledge Exchange, Learning, Indicators to measure change

**Rio Markers**

**Climate Change Mitigation**

Climate Change Mitigation 2

**Climate Change Adaptation**

Climate Change Adaptation 1

**Duration**

36 In Months

**Agency Fee(\$)**

125,387.00

**Submission Date**

3/18/2021

**A. Indicative Focal/Non-Focal Area Elements**

<b>Programming Directions</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
CCM-3-8	GET	1,319,863.00	500,000.00
<b>Total Project Cost (\$)</b>		<b>1,319,863.00</b>	<b>500,000.00</b>

**B. Indicative Project description summary**

**Project Objective**

To enhance Uzbekistan's institutional and technical capacities to ensure monitoring, reporting and verification (MRV) of NDC climate actions and support received for complying with enhanced Transparency Framework of Paris Agreement

<b>Project Component</b>	<b>Financing Type</b>	<b>Project Outcomes</b>	<b>Project Outputs</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1. Strengthening national stakeholders' capacity on Transparency Framework (ETF) for national climate change actions.	Technical Assistance	<p>1.1 Enhanced understanding of the national stakeholders on the modalities, procedures and guidelines (MPGs) and transition to ETF</p> <p>Targets:</p> <p>Uzbekistan Climate Change Actions Enhance Transparency Framework is adopted and shared between the governmental entities;</p> <p>60 of people (at least 40% women) trained on the modalities, procedures and guidelines (MPGs) and ETF and its transition;</p> <p>Key bodies and initiatives supporting the transition identified</p>	<p>1.1.1 A MRV/transparency technical and institutional needs and gaps assessment</p> <p>1.1.2 Uzbekistan Climate Change Actions Enhance Transparency Framework (UZCCETF) roadmap for the relevant stakeholders (mentioned in the Table 3) prepared, endorsed, and adopted</p> <p>1.1.3 Implementation of targeted priorities related to the enabling environment identified in the UZCCETF</p>	GET	134,756.00	54,500.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2. Strengthening coordination and reporting among the national stakeholders for transparent, accurate, and consistent greenhouse gas inventory	Technical Assistance	<p>2.1. Enhanced institutional coordination and capacity for data collection, methodologies, guidelines, protocols, including quality assurance and quality control (QA/QC) processes and full integration of the sectoral data on GHG emissions</p> <p>Targets:</p> <p>20 of mitigation activities in the key sectors monitored and included in national reports;</p> <p>10 of documented procedures and tools to collect, process and analyze data to report emissions and removals in the key sectors;</p> <p>70 of people trained (at least 40% women) in data collection and revision of data according to the IPCC 2006 methodology.</p>	<p>2.1.1 Enhanced institutional capacity on GHG emission reporting based on 2006 IPCC Guidelines for National Greenhouse Gas Inventories.</p> <p>2.1.2 Enhanced technical capacity on GHG emission estimation based on 2006 IPCC Guidelines.</p>	GET	365,120.00	200,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 3. Strengthening national capacity to monitor and report on adaptation activities	Technical Assistance	<p>3.1</p> <p>Strengthened capacity to measure climate-change impacts, vulnerabilities, and adaptation-related activities in the relevant sectors</p> <p>Targets:</p> <p>30 of adaptation activities in the key sectors monitored and included in national reports;</p> <p>50 of people trained (at least 40% women) on all national processes and requirements to submit reports to the UNFCCC;</p> <p>an operational framework to track impacts, risks and vulnerabilities in the key sectors.</p>	<p>3.1.1. Developed framework to map and to measure climate change impacts, risks and vulnerabilities and adaptation-related activities.</p> <p>3.1.2. Developed monitoring and evaluation system of adaptation actions and processes</p>	GET	250,000.00	100,000.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 4. Strengthening national system of progress tracking in achieving the Nationally Determined Contribution (NDC)	Technical Assistance	<p>4.1 Strengthened data and information management system to track the progress of its NDCs in the different sectors</p> <p>Targets:</p> <p>A digital technology system/platform online for data management and exchange;</p> <p>40 of people trained (at least 40% women) on all national processes and requirements to submit reports;</p> <p>an operational framework to track progress in the implementation and achievement of NDCs in the key sectors.</p>	4.1.1. Operational tool, database and NDC information management system for tracking the progress of NDC mitigation and adaptation actions and support needed and received.	GET	400,000.00	80,000.00



Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 5. Project monitoring and evaluation	Technical Assistance	5.1 Project monitoring and evaluation and assessment of global environmental benefits  Target  Functioning M&E system and GEBs and co-benefits established	5.1.1 Final evaluation of project implementation will be conducted by an external consultant, who will work in consultation with the project team including FAO-GEF Coordination Unit, the LTO (Lead Technical Officer), and other partners.	GET	50,000.00	20,000.00
<b>Sub Total (\$)</b>					<b>1,199,876.00</b>	<b>454,500.00</b>
<b>Project Management Cost (PMC)</b>						
			GET	119,987.00	45,500.00	
			<b>Sub Total(\$)</b>	<b>119,987.00</b>	<b>45,500.00</b>	
<b>Total Project Cost(\$)</b>				<b>1,319,863.00</b>	<b>500,000.00</b>	

**C. Indicative sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Recipient Country Government	Uzhydromet	In-kind	Recurrent expenditures	200,000.00
GEF Agency	FAO	In-kind	Recurrent expenditures	300,000.00
<b>Total Project Cost(\$)</b>				<b>500,000.00</b>

**Describe how any "Investment Mobilized" was identified**

There is no IM for this CBIT

**D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds**

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
FAO	GET	Uzbekistan	Climate Change	CBIT Set-Aside	1,319,863	125,387	1,445,250.00
<b>Total GEF Resources(\$)</b>					<b>1,319,863.00</b>	<b>125,387.00</b>	<b>1,445,250.00</b>

**E. Project Preparation Grant (PPG)**

PPG Required **true**

**PPG Amount (\$)**

50,000

**PPG Agency Fee (\$)**

4,750

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
FAO	GET	Uzbekistan	Climate Change	CBIT Set-Aside	50,000	4,750	<b>54,750.00</b>
<b>Total Project Costs(\$)</b>					<b>50,000.00</b>	<b>4,750.00</b>	<b>54,750.00</b>

## Core Indicators

### Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	<b>Number (Expected at PIF)</b>	<b>Number (Expected at CEO Endorsement)</b>	<b>Number (Achieved at MTR)</b>	<b>Number (Achieved at TE)</b>
<b>Female</b>	150			
<b>Male</b>	225			
<b>Total</b>	375	0	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

The number (i.e. 190) was a typo. 375 beneficiaries are taken from Annex E that initially was provided by Uzhydromet based on the involvement of NDC enhancement, preparation of NCs and BURs. These 375 people come from the different national agencies/ministries and private sector and will participate in all 4 components via training, forming Committees and groups. For example: - Component 1 will include the meetings with the relevant sectoral stakeholders in order to prepare a road map (around 50 people). Additionally, the Steering group will be formed out of 15 people. Finally, around 80 people will get trained on ETF. - Component 2 includes complex multi-sectoral training for about 150 people on data management. If the previous component was focused on high-level decision-makers in the ETF process, the current component will focus on the technical employers preparing relevant for UNFCCC reports. - Component 3 includes also the technical employers to be trained, but not focusing on MRV in the country, but rather on the development of policies respective to cc adaptation. (around 50 people) - Finally, the last component will have a joint focus on NDC (that includes several sectors, thus, several participated Ministries) ? around 100 people.

## Part II. Project Justification

### 1a. Project Description

#### *1a. Project Description. Briefly describe:*

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description); 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario with a brief description of expected outcomes and components of the project; 4) alignment with GEF focal area and/or Impact Program strategies; 5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; 6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 7) innovation, sustainability and potential for scaling up.

#### *1) Global environmental and adaptation problems, roots causes and barriers that need to be addressed (systems description)*

##### *1.1 Enhanced transparency framework of Paris Agreement*

1. The Paris Agreement is aimed to combat climate change and its impacts by keeping global temperature increase well below 2°C<sup>1</sup>. To reach this goal, each country has developed individual climate commitments, known as Nationally Determined Contributions (NDC). Additionally, there are other provisions under the Paris Agreement that are focused on climate change mitigation and adaptation regulation in a country. It is globally agreed to assist developing nations in their climate mitigation and adaptation efforts by creating a framework for the transparent monitoring, reporting, and ratcheting up of countries' climate goals. Under the United Nations Framework Convention on Climate Change (UNFCCC), all Parties are required to periodically report national climate change-related information through the national communications (NCs). Article 13 of the Paris Agreement also calls for an 'Enhanced Transparency Framework' (ETF) to report and review information on Parties' greenhouse gas emissions, progress in NDCs mitigation and adaptation actions, financial and technological capacity-building support needed, and received.

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2. The goal of reporting provisions under the Convention and the Paris Agreement is to build on and enhance the existing transparency arrangements in relation to the preparation of National Communications (NCs), Biennial Update Reports (BURs), and Measurement, Reporting and Verification (MRV). ETF sets the rules on what information to report on the following aspects:

? Submission of the first Biennial Transparency Report (BTR) and national inventory report by the end of 2024;

? how Parties can track progress in implementing and achieving their NDCs. Further, this information will be a base for global stocktakes (GST) of progress every five years and will inform Parties on what to include in their next NDCs. The first global stocktake will take place in 2023;

? information on climate change impacts and adaptation; and

? information on support needed and received.

3. The above new requirements challenge the Government and require the additional improvement of the capacity in order to report in an efficient way and to be able to adapt to the changes.

#### *1.2 National aspiration of Uzbekistan to climate change mitigation and adaptation*

4. Climate change constitutes a major threat to Uzbekistan's development and to its citizens' wellbeing. Annual mean temperature in Uzbekistan is expected to increase 1.3 to 2.1°C by 2030, 1.8 to 3.3°C by 2050, and 2.0 to 5.4°C by 2085. Long-lasting heat waves are projected to increase in duration by 3 to 9 days by 2030, between 4 and 17 days by 2050, and between 6 and 43 days by 2085. Annual precipitation change is expected to fluctuate between a three percent decrease to an increase of 12 percent by 2030, and a decrease of 6 percent to an increase of 18 percent by 2085[2]<sup>2</sup>.

5. In view of these global climate change impacts, Uzbekistan signed the UNFCCC in 1993 and is a Non-Annex I country[3]<sup>3</sup>. The country signed the Kyoto Protocol on 20 November 1998, and ratified it on 12 October 1999. The country also signed the Paris Agreement on 19 April 2017[4]<sup>4</sup>. The

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National Authority for Clean Development Mechanism (CDM) under the Kyoto Protocol in Uzbekistan was created at the Ministry of Economy and an Interdepartmental Council was formed[5]<sup>5</sup>. The country has registered 15 Clean Development Mechanism (CDM) Projects in the Executive Council of UNFCCC, and 14 million ton of Certified Emission Reductions (CER) achieved. The country occupies the first place among CIS and Easter Europe countries by number of registered CDM projects [6]<sup>6</sup>.

6. The country submitted Initial National Communication (INC) to the UNFCCC in 22 October 1999, Second National Communication (SNC) (also National Inventory Report-NIR) has submitted in 3 Dec 2008, and Third National Communication (TNC) (also NIR) has submitted in 21 Feb 2017[7]<sup>7</sup>. The country is in the process of developing sector driven National Adaptation Plan (NAP) with the financing from Green Climate Fund (GCF)[8]<sup>8</sup>. Two Nationally Appropriate Mitigation Actions (NAMAs) is under development with assistance from international development partners. The first NAMA focused on energy-efficient rehabilitation of multistory residential buildings with support from the German government and Uzkommunkhizmat as an implementing partner. The second NAMA is focused on energy efficiency in rural buildings under the UNDP/Ministry of Economy project "Supporting Uzbekistan in Transition to a Low-Emission Development Path." The ADB is also working with the Ministry of Economy and Uzbekenergo to develop a NAMA based on the country's solar roadmap[9]<sup>9</sup>. But, yet none of these NAMA concepts had been submitted to the NAMA Registry [10]<sup>10</sup>. Intended Nationally Determined Contribution (INDC) of Uzbekistan was submitted in 19 Apr. 2017 [11]<sup>11</sup>. The Biennial Update Report (BUR) reflecting the latest climate change response efforts and GHG inventories is planned to be ready in 2021, whereas the NC4 is planned to be ready in 2022.

7. During the implementation of CDM projects, as well as the preparation of NCs and BUR the following gaps were identified:

? low capacity in decision-making in the development and implementation of policies and measures in relation to low-carbon development and, if necessary, adjustment of the policies;

? coordination and exchange of information between the different sectors;

? tracking progress towards the Nationally Determined Contribution (NDC);

fulfilment of the requirements of the ETF.

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## 2) *Baseline scenario and any associated baseline projects*

### 2.1 Country Context

8. The Republic of Uzbekistan is located in the Central Asia. The total area of the country is 448.9 thousand km<sup>2</sup>, extending from north to south by 930 km, and from west to east by 1,425 km. The country is located between 37° and 45°N, and 56° and 73°E within the river basins of Amudarya and Syrdarya. The north-western part cover steppes and deserts of the Turan depression, which is around 79% of the country area. The rest of the area is in piedmont area, and off spurs of the Tien - Shan and Gissar - Alay mountain system [12]<sup>12</sup>. The country is bordered with Kyrgyzstan in the north-east and east, Kazakhstan in the north and north-west, Tajikistan in the south-east, Turkmenistan in the south-west, and Afghanistan in the south (Figure 1) [13]<sup>13</sup>.

9. The southern part of the country is located in subtropical climatic zone, and moderate climatic zone cover the northern part. Extended summer season is the one of climate features. The hottest month is July with average mean air temperature of 37° in the south (Termez) to 32-33° in the north (Ustyurt Plateau). The average temperature for the coldest month of January on Ustyurt Plateau is -8° and lower reaches of Amudarya river is -10°. In winter cold air mass from Arctic and Siberia regions accompanied by winds and heavy precipitations penetrates in the country. The precipitation is mainly brought about by humid air mass, and distribution of precipitation across the territory is extremely uneven. It is mainly influenced by terrain elevation, disposition of mountain systems, direction of mountain slopes and other features of orography. The precipitation in the Tashkent, the capital of the country is about 415 mm per year from November to May. There is almost no rain in while in summer [14]<sup>14</sup>.

10. Uzbekistan is a country with developing economy and a stable annual GDP growth rate of over 4.5-6%. Over the past 10 years the average annual rates of the GDP growth were around 8%. According to the State Statistical Committee, in 2019 the population of Uzbekistan has reached more than 33.3 million people. According to the UN prediction, the country's population will reach 37 million people by 2030. Uzbekistan has a rapidly growing economy with main sectors being services (36% of GDP), industry (26%), and agriculture (32%). Almost a third (27%) of the active population is employed in agriculture, and the volume of agricultural production doubled since 1990. Uzbekistan

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experiences high growth in investment in recent years[15]<sup>15</sup>. Job creation in the manufacturing subsectors has been a particular challenge, especially in labor-intensive subsectors such as food processing, light industry, apparel, and other manufacturing. Manufacturing employment in Uzbekistan was only about 9 percent of total employment in 2016, having declined during 1996-2016 despite government policies to support the sector, and contrary to the government's expectations. The industrial sector (mining and manufacturing, excluding construction and utilities) is the least-important employer in Uzbekistan's economy, accounting for just 13 percent of total employment[16]<sup>16</sup>.

11. Agriculture traditionally is one of the leading sectors of the country. Total gross domestic product of the agriculture sector is contributed by the crop production (61%), and the livestock production (39%). Agriculture accounts for 28.7% of GDP and employs 33.1% of the total workforce[17]<sup>17</sup>. More than half of the private farms grow cotton and wheat. The rest are cattle breeding, vegetables, melons, grapes, fruits growing and apiculture farms. Uzbekistan is one of the world leaders in cotton production and the main producer of fruits and vegetables in the Central Asian region. The national strategy for agriculture development is aimed at structural reforms, including deviation from cotton monoculture, reorientation to diversification of agricultural production, advanced processing of agricultural products, rehabilitation of saline irrigated lands. Lastly, cropland occupies 46% of the territory, followed by protected areas (27%), and forest land (21%). Agricultural production is concentrated on the agricultural area of 20,469.1 thousand ha (54.4% of the land area).

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Figure 1: Location of Uzbekistan (Source: United Nations Geospatial Information Section[18]<sup>18</sup>).

12. Uzbekistan's subsoil is rich in oil, gas, coal and uranium. For natural gas, it ranks 11th in the world for mining and 14th for reserves, and for uranium it is 6th for mining and 7th for explored reserves[19]<sup>19</sup>. Uzbekistan is net exporter of natural gas with 0.6% of world gas reserves. The considerable part of natural gas is consumed within the country, and around 15-18% is exported. Natural gas is transported by the main and field gas pipelines of around 14 thousand km. The oil and gas sector of Uzbekistan possesses its own processing base. It comprises such large enterprises as the Mubarek gas processing plant, head structures of the Shurtan gas field and Shurtan gas-chemical processing plant, Navoi chemical works with three oil processing plants.

13. Most of the coal (85% of the extraction) is used for electricity generation. It is also among the

world leaders for producing and supplying reserves of certain minerals: gold, copper, phosphorites, molybdenum. In Uzbekistan, hydropower generation is counted as electricity produced from renewable energy sources (RESs). Despite the country's considerable solar energy potential, it has no industrial-scale solar power plants. Furthermore, as wind potential has not been studied sufficiently, there are also no industrial-scale wind farms.

14. According to "Gender, agriculture and rural development in Uzbekistan Country Gender Assessment Series[22]<sup>20</sup>", the labor market of Uzbekistan exhibits gender-based segregation, both vertical and horizontal, with women tending to be concentrated in low-paid sectors of the economy, which is usually public service (primarily, education, healthcare and social security); at the same time, they are almost absent from sectors that correlate with higher pay and prestige (construction, transport, communications and other technical fields). Labor migration is a common feature of rural areas where limited employment and income generating opportunities, as well as low wages, are push factors for both men and women. Men make up the large majority of labor migrants – both internal and international (they represent around 85 percent of labor migrants to Russia, for example) – which means that women are more often the family members who are "left behind".

15. Water resources comprise the Amudarya and Syrdarya rivers (55% of total freshwaters available), other small rivers (33%), underground waters (around 10%), and collector/drainage waters (2%) – and all watercourses are tributaries of the Aral Sea basin. The main consumer of available surface water is irrigated agriculture, which in some years takes up to 90% from the total water consumption, while groundwater is used mainly for drinking purposes, municipal water supply and industry. Small portion of underground water is used for land irrigation.

16. As a landlocked country, Uzbekistan has high transport costs for trade relationships. The principal modes of transport are roads and railways. The market share of the railways has declined steadily between 1997 and 2015, from 90% of total freight traffic carried in 1997, to 80% in 2000, and an estimated 61% in 2015[23]<sup>21</sup>. Transport infrastructure needs upgrading, particularly outside main economic centres, to enhance both domestic & cross-border connectivity. International logistics services remain underdeveloped due to inefficiencies in customs and border clearance.

## 2.2 Greenhouse gas emission reported in National Communications

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17. The INC was prepared based on IPCC 1996 national GHG inventory guideline. The sectors considered were: Energy, Industrial Processes, Agriculture, Changes in Land Use and Forestry, and Wastes. The base years selected were 1990 and 1994. Quantitative assessments were performed taking the national statistics for different sectors collected by the state and various departments, and using IPCC emission factors[24]<sup>22</sup>. The SNC estimated the GHG emissions was based on Revised 1996 IPCC Guidelines for Greenhouse Gas Inventories. The emission quantification period was 1990-2005. National emission factors were used to a considerable degree to decrease uncertainty. Analysis of key sources was done in accordance with the Good Practice and Uncertainty Management in National Greenhouse Gas Inventories IPCC, 2003[25]<sup>23</sup>.

18. The TNC revised the GHG emission assessments for the period 1990-2012, as well as previous omitted emission sources. The national emission factors were corrected for some source categories to present the national conditions and reducing uncertainties. The main sources of data were the State Committee of the Republic of Uzbekistan on Statistics, large national companies, ministries and agencies. 2006 IPCC Guidelines for National Greenhouse Gas Inventories were used. The sources of data were: (i) national normative, legal and technical documents, (ii) national studies conducted under national projects, (iii) national statistical data on various sectors of economy, (iv) expert judgments, (v) international data sources such as International Energy Agency (IEA) and FAO database. QA/QC have been conducted in accordance with the IPCC Guidelines 2000 and 2006. The emissions for period 1990-2005 recalculated against the SNC. The reasons were: (i) updated activity data and emission factors, (ii) appearance of new or close of activities of existing emission sources, and correction of assumptions considered earlier. The GHG emissions reported over the period of 1990-2012 is presented in Table 1.

Table 1: Greenhouse Gas Emissions and Sinks by Sectors, Mt ?? 2eq.

Sector	1990	1995	2000	2005	2010	2012	Change from 1990 to 2012 (%)
Energy	151,2	157,9	172,4	169,2	164,1	168,1	+11,2%
Industrial Processes	8,1	5,3	4,9	6,2	7,9	7,8	-3,7%
Agriculture	17,0	16,7	16,2	16,1	19,9	21,6	+27,1%
LUCF	-1,6	-1,4	-1,0	0,4	-3,1	-2,9	+81,3%
Waste	4,1	4,3	4,5	4,7	7,3	7,7	+87,8%

Total emissions with LUCF	178,8	182,8	197,0	196,6	196,1	202,3	+13,1%
Total emissions without LUCF	180,4	184,2	198,0	196,2	199,2	205,2	+13,7%

Source: Third National Communication of Uzbekistan[26]<sup>24</sup>.

19. According to the preliminary estimates of the current GHG inventory in the first biennial update report (BUR) covering the period 1990-2017, removals in 2017 are estimated as 4.7 million tons of CO<sub>2</sub>-eq, or 2.7% of the total emissions. The GHG emissions, including their removals, were 168.4 million tons of CO<sub>2</sub>-eq. Energy is the largest contributor to GHG emissions (77% in 2017), followed by agriculture (17%) and by industry and the waste disposal sector (5% and 2%, respectively). The AFOLU sector has made a significant contribution to changing the emission trajectory in the country, namely, 7% of increase since 2012 estimations.

#### *MRV of the GHG Inventory*

20. Since 2017 reforms have been carried out in the national statistical system to ensure the accuracy, reliability and openness of information. Practical steps have been taken to generate and monitor relevant statistics to measure progress towards achieving national Sustainable Development Goals. The State Committee on Statistics and UNDP in Uzbekistan has developed a national website (nsdg.stat.uz). The website is a platform for monitoring and reporting on the implementation of national SDGs and is accessible to a wide range of users. To date, it contains data on about 100 indicators.

21. From the lessons learned during the preparation of National Inventories and the implementation of CDM projects, it follows that an effective MRV system involves:

- the required level of political support;
- well-organized information flows between the participating institutions.

The success of the MRV system depends to a large extent on institutional mechanisms aimed at coordinating actions related to the preparation of National Communications and Biennial Update Reports (BURs), including standardizing the data collection system, identifying common approaches to evaluating policies and mitigation measures, and quality control procedures (QC/QA), and the creation of databases.

22. As part of the preparation of the First Biennial Update Report, a concept for the development of MRV was developed, which consists of the main problems and tasks for the development of institutional mechanisms, methodological base, data processing procedures and a plan of the implementation of the national MRV system, based on the requirements of the UNFCCC and on an

analysis of international experience, as well as in accordance with national conditions. The internal MRV system is expected to make the most of existing systems and processes for data collection, including QC / QA procedures, and will consist of the following components:

- MRV inventory of GHG emissions;
- MRV mitigation actions;
- M&E of adaptation actions;
- MRV support (required and provided).

23. In Uzbekistan, there are some elements of the MRV structure of the GHG inventory. Currently, GHG inventory is carried out within the framework of projects for the preparation of National Communications or Biennial Update Reports funded by the GEF. The current inventory covers the period 1990-2017. Within the framework of the Fourth National Communication, it is planned to prepare estimates of GHG emissions for 1990-2019. To move to a continuous process of preparing an inventory, it is necessary to develop and approve an appropriate regulatory and legal document. In the current inventory, the IPCC 2006 software is used to calculate emissions in the Energy, Industrial Processes, Agriculture and Waste sectors. For calculations in the Forestry and Other Land Use Sector, additional Excel tables are used in the format of the corresponding tables presented in the Appendix in T.4 2006 IPCC Guidelines. Documentation for each design category and national emission factors is collected in an electronic database (a hard copy is also available). All archival information on the GHG inventory of the First-Third National Communication is also stored in the form of electronic archives. Quality assurance / quality control (QA / QC) procedures during inventory preparation are implemented in accordance with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories at all stages of inventory preparation.

#### *MRV of Mitigation*

24. The MRV mitigation action is in its early stages. The aim of the MRV of mitigation actions is to quantify the GHG emission reductions from the implementation of individual policies / strategies / programs / projects.

During the preparation of the First Biennial Update Report, steps were taken to assess and analyze mitigation measures and experience gained in analyzing and processing this information, which will be used to develop reporting and monitoring procedures. Current MRV mitigation system lacks at:

- definition of institutional arrangements;
- determination of the methodological framework required to assess the impact of policies and mitigation measures on reducing GHG emissions;

- identification of data sources (statistical offices, ministries, organizations, private companies) related to the assessment of policies and mitigation measures;
- defining reporting obligations;
- determination of approaches to verification.

### *MRV of Adaptation*

25. The MRV of adaptation actions is planned to be developed as part of the preparation of the National Adaptation Plan of the Republic of Uzbekistan in 2021-2022, since by developing national adaptation plans, one of the mandatory components is the creation of a monitoring and evaluation system (M&E), including: assessing impacts, vulnerabilities and risks. The challenge is to develop indicators for assessing the implementation of adaptation measures, since there is no universal approach and common indicators for assessing risks, vulnerability and impacts of adaptation measures. Since Countries have different climatic risks, vulnerability and effects from the implementation of adaptation measures are local.

26. TNA was prepared in 2001 in the following areas: ? Identifying priority technological requirements of economic sectors of Uzbekistan in reducing GHG emission and mitigating the negative impact of climate change; studying possible acquisition and use of technologies; assessing and developing specific technological projects. ? Undertaking additional studies in vulnerability assessment and developing climate change adaptation interventions. ? Strengthening the regional monitoring system and capacity building for participation in the Global Climate Monitoring System (GCMS)[27]<sup>25</sup>. The revision of the Technology Needs Assessment (TNA) and Technology Action Plans(TAPs) and Roadmaps for NDC Implementation for Republic of Uzbekistan is prepared currently by Hydromet jointly with Climate Technology centre and network[28]<sup>26</sup>.

### 2.3 *Uzbekistan's Climate Change vulnerability*

27. Climate of Uzbekistan is continental. The majority of the territory is attributed to the ?moderate? climate zone. The southern part of the country is located in the arid subtropical climate zone. Large seasonal and daily variations in air temperature and dry, hot and long summer are typical

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for Uzbekistan. Minimum precipitation (around 100 mm per year) occurs in the western desert part of the country. In the mountainous area precipitation amount increases reaching 800-900 mm per year. On average warming rate is 0.27° per 10 years in the country. Climate models agree in estimating that air temperature in Uzbekistan will continue to increase and by 2030 it will be 1.0-1.4° higher while future probability of recurrence of 'heat waves' will also likely increase[29]<sup>27</sup>.

28. Over the period from 1925 to 2013 in the northern, central and southern parts of Uzbekistan the temperature increased at the magnitude of 1.690c, 1.630c and 1.720c, respectively. The TNC reported that throughout entire territory of Uzbekistan the increase of average annual air temperatures is statistically significant over the period of 1925 to 2013. Analysis of variations in the total annual precipitation amount over the period 1950-2013, averaged by various regions of Uzbekistan, indicates in the majority of cases very low trends towards decrease. The most pronounced trends towards decrease in precipitation amount are observed in the southern plains of Uzbekistan.

29. Water resources of the country comprises the surface runoff of Amudarya and Syrdarya rivers (55%), runoff of small rivers (33%), underground waters (around 10%), and collector/drainage waters (2%). All watercourses and water bodies of Uzbekistan are attributed to the Aral Sea basin. The long-term average flow of 38 km<sup>3</sup> and 79 km<sup>3</sup> are formed on the Syrdarya and Amudarya river watersheds respectively. Due to intensive and irrational use of water, Aral Sea water surface area decreased from 67,000 to 4,000 km<sup>2</sup> over the period of 1960-2014, and consequently water mineralization increased by 13 to 14-fold. As a result, it already lost its ecological and economic value. The main consumer of available water resources is irrigated agriculture, which in some years takes up to 90% from the total water consumption. Around 10% and 8% of the Syrdarya and Amudarya rivers flow respectively are formed on the territory of Uzbekistan. Underground water resources are used mainly for drinking and municipal water supply and for industry. Small portion of underground water is used for land irrigation. There is a general recession of glaciers on the upper watersheds of the Amudarya river basin (Pamir, Gissar-Alay, Hindu Kush) and Syrdarya river basin (Tien Shan) due to climate warming impact. Some small size glaciers disappeared, and large ones break down. Small glaciers with area less than 1 km<sup>2</sup>, share of which is 80% from the total number of glaciers in this region, degrade most rapidly[30]<sup>28</sup>.

30. The adverse effects of climate change and natural disasters on agricultural system of the country has a profound impact on food security. The predicted increase in air temperatures and crops evapotranspiration will facilitate growth in crop water requirements, which will also decrease available water resources. This altogether can negatively influence the productivity and profitability of irrigated agriculture. For example, in Khorezm and Karakalpakstan province, which is the most vulnerable

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regions of the country due to drought 14-17% cereal productivity was lost over the period of 2000-2001. Such losses were estimated to be USD 130 million (2.4% of agriculture GDP). Climate change also already affecting the cattle breeding sector through pastures productivity decrease, changing the grazing conditions, and forage supply[31]<sup>29</sup>.

31. The adverse impacts of droughts in the country are already reported through decrease in volume of water resources, deterioration of the quality, and recession of groundwater table. In recent years high frequency of droughts occurrence is affecting the all sectors of economy. Agriculture is the most vulnerable economy sector, since more than 90% of crop yield is produced on irrigated lands. In addition, around 75% from the total population is expected to expose to drought. The key negative impacts of climate change in different economic sectors as mentioned in the TNC are: (i) increase in energy consumption for cooling and ventilating all types of buildings and industrial complexes; (ii) increase in electric energy demand for irrigation during vegetation period due to necessity to compensate additional crop evapotranspiration and water losses in irrigation systems; (iii) increase in load on electric grids in hot period of year, reduction in reliability of electricity supply, need for additional water for cooling systems; (iv) decrease in productivity of small and large hydropower stations due to probable reduction in rivers runoff; and (v) decrease in productivity of thermal power stations due to deficiency of water for cooling.

32. The need to adapt to climate change in all sectors is on the agenda of Uzbekistan. Such sectors as agriculture, water management, tourism, ecosystems, health and infrastructure will suffer the most. Since the desert terrain and arid climate are main conditions in Uzbekistan, country is highly dependent upon its water resources, both for hydropower generation and for farm irrigation. No other type of economic activity is affected by the climate more than agriculture. In Uzbekistan the risks of climate change for the agricultural sector very dangerous because the majority of the rural population depends either directly or indirectly on agriculture for their livelihoods. The rural poor is disproportionately affected because of their greater dependence on agriculture, their relatively lower ability to adapt, and the high share of income they spend on food. Increased frequency and/or intensity of extreme weather events, particularly flooding and mudflows, may adversely impact multiple components of Uzbekistan's infrastructure, including for transportation, communication, water resources and energy. Particular efforts should be done to limit greenhouse gases and to mitigate climate change in order to prevent the harmful effects of temperature increases, changes in precipitation, and the increased frequency and severity of extreme weather events.

33. Intended Nationally Determined Contribution (INDC) of Uzbekistan was submitted in 19 April 2017 [32]<sup>30</sup>. Uzbekistan's NDC sets forth a framework for action to address both the impacts and drivers of climate change in the different sectors. It is the basis for the development and strengthening of monitoring and reporting systems and processes pursuant to the requirements of the ETF. Uzbekistan is committed to the Paris Agreement and set forth adaptation and mitigation actions through NDC[33]<sup>31</sup>. The government officially signed the Paris Agreement on 19 April 2017, and ratified it in November 2018. The NDC sets mitigation objective of *reducing specific emissions of GHG per unit of GDP by 10% by 2030 compared to 2010 level*. The adaptation objective of NDC is *to continue its efforts for adaptation capacity building to reduce risk of climate change adverse impact on various sectors of economy, social sector and Priaralie (Aral Sea coastal zone)*. A brief overview of the NDC of Uzbekistan is presented in Table 2.

Table 2: Key indicators, mitigation and adaptation measures of NDC, Uzbekistan.

<b>Key indicators, mitigation and adaptation measures of NDC</b>	
<b>Reference Year</b>	2010
<b>Target time period</b>	2020-2030
<b>GHG emissions reduction target</b>	To decrease specific emissions of GHG per unit of GDP by 10% by 2030 from level of 2010.
<b>Adaptations target</b>	Uzbekistan will also continue its efforts for adaptation capacity building to reduce risk of climate change adverse impact on various sectors of economy, social sector and Priaralie (Aral Sea coastal zone).

## Key indicators, mitigation and adaptation measures of NDC

### Key mitigation measures

- Modernization and technical upgrading of industry;
- Decrease in losses of natural gas with its extraction, processing and transportation;
- Development and broad use of alternative energy sources: intensive construction of large solar photovoltaic power plants; creation of biogas plants; scaling up of wind power generation;
- Improvement of energy efficiency of buildings on account of decrease in specific energy consumption;
- Extension of transport and logistics communication systems, ensuring efficient energy resources use (including optimization of transportation routes, improvement of motor roads quality, etc.);
- Expansion of measures on motor vehicles change over to run on alternative fuel;
- Education and advanced training for specialists in the area of energy saving and renewable energy;
- Development of information systems for efficient solution of climate change problems;
- Improvement of the quality of the greenhouse gases inventory and decrease in the general uncertainty of the GHGs inventory through development and refinement of the national emission factors, approaches and methods for calculation of greenhouse gas emissions; and
- Development of the system for inventory of greenhouse gas sinks and emissions in the ?Land Use Change and Forestry? sector on the basis of advanced GIS technologies.

## Key indicators, mitigation and adaptation measures of NDC

### Key adaptation measures

#### *Agriculture and water management*

- Improvement of the climate resilience of the agriculture through diversification of food crops production pattern; conservation of germplasm and indigenous plant species and agricultural crops resistant to droughts, pests and diseases;
- Improvement of irrigated lands affected by desertification, soil degradation and drought, increase in soil fertility of irrigated and rainfed lands; and
- Improvement of pasture productivity and fodder production in desert and piedmont areas.

#### *Social sector*

- Raising of awareness and improvement of access to information about climate change for all groups of population; and
- Widening the participation of the public, scientific institutions, women and local communities in planning and management, considering approaches and methods of gender equity;

#### *Aral Sea*

- Conservation of the current fragile ecological balance in Priaralie, combating desertification, improvement of management system, efficient and rational water resources use;
- Conservation and rehabilitation of flora and fauna biodiversity, including through creation of local water bodies in Priaralie; and
- Conservation and restoration of forest resources, including afforestation of the dried Aral Sea bottom.

#### *Ecosystems*

- Restoration of forests in mountain and piedmont areas, conservation of indigenous plant species in semi-deserts and deserts; and
- Conservation, restoration and maintenance of ecological balance in the protected nature territories.

#### *Infrastructure and production facilities*

- Introduction of adaptation criteria into governmental investment projects for construction, modernization, O&M of infrastructure in various sectors of economy;
- Improvement of the system for monitoring ameliorative conditions of irrigated lands and soil fertility; and
- Expansion of sectoral programs for purification of municipal and industrial effluents, ensuring quality of water for drinking water supply and sanitation;

2.5 *Institutional arrangements of climate change mitigation and adaptation in Uzbekistan*

34. The State administration is based on functional-sectoral and territorial entities, and includes ministries, state committees, agencies and organizations, as well as local branches of State authority ? khokimiyats (local municipalities) in provinces, cities, towns and districts. The Centre of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet) is the UNFCCC Focal Point . The State Committee on Ecology and Environmental Protection is the GEF OFP. the State Committee on Forestry of Uzbekistan is the UNCCD Focal Point. There is no permanent coordination mechanism available in Uzbekistan - OFP reaches out to the ministries and the committees on the ad-hoc/project to project basis.

35. The Centre of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet) is appointed as the Agency responsible for preparation of the GHG Inventory in Uzbekistan through the Decree of Cabinet of Ministers of the Republic of Uzbekistan No. 183, dated 14 April 2004[34]<sup>32</sup>. The GHG inventory national team has been formed within the Air, Surface Water and Soil Pollution Monitoring Service Department of Uzhydromet to coordinate the inventory preparation. All the data and information are collected, compiled and stored in this service. The existing institutional arrangement and specific roles of other government agencies, organizations and industrial companies are presented in Table 3.

Table 3. Existing institutional structure of MRV for preparing GHG inventory

Sectors	Respective Ministry
<i>Energy</i>	
Burning fuel	- State Committee of the Republic of Uzbekistan on Statistics (annual fuel balances);  - Ministry of Energy (data on fuel consumption at TPPs and CHPPs, energy characteristics of fuels)

Sectors	Respective Ministry
Fugitive emissions from fuel	<ul style="list-style-type: none"> <li>- State Committee for Ecology and Environmental Protection (emissions from transport)</li> <li>- State Committee of the Republic of Uzbekistan on Statistics (data on production, export, import of coal, oil, natural gas, production of oil products, etc.);</li> <li>- Ministry of Energy (Uzbekneftegaz JSC)</li> </ul>
<b><i>Industrial processes and product use</i></b>	
Production of mineral products	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on statistics (summary data on the production of mineral products in the country);</li> <li>- Association of Enterprises "Uzpromstroimaterialy" (data on the production of mineral products at the enterprises of the association, information on production technologies, participation in the calculation of emission factors)</li> </ul>
Chemical industry	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on Statistics (summary data on the production of chemical products for the country);</li> <li>- JSC "Uzkhimprom" (data on the production of chemical products at each of the enterprises, information on production technologies, participation in the calculation of emission factors)</li> </ul>
Metallurgy	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on Statistics (country data on steel production);</li> <li>- Bekabad Metallurgical Plant (data on production technologies, participation in the calculation of emission factors)</li> </ul>
Use of hydrofluorocarbons	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection (Ozone Office) (collection of necessary information, calculation of consumed HFCs in mixtures, calculation of HFC emissions);</li> <li>- State Customs Committee of the Republic of Uzbekistan (data on the import of HFC mixtures into the country)</li> </ul>
Lubricant Use	<ul style="list-style-type: none"> <li>- The State Committee of the Republic of Uzbekistan on Statistics (summary data for the country on the consumption of lubricants)</li> </ul>
<b><i>Agriculture, forestry and Other Land Use</i></b>	
Agriculture	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on statistics (data on livestock);</li> <li>- State Committee of the Republic of Uzbekistan on statistics (data on nitrogen fertilizers applied to the soil, on livestock, on the harvested areas of land for crops and their yield);</li> <li>- State Committee of the Republic of Uzbekistan on statistics (data on harvested areas under rice crops)</li> </ul>

Sectors	Respective Ministry
Forestry and Other Land Use	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on forestry (data on forest inventory);</li> <li>- State Committee for Land Resources, Geodesy and Cartography and State Cadastre of the Republic of Uzbekistan (data on forest areas);</li> <li>- Research Institute of Forestry (development of national coefficients, calculation of CO2 absorption by forest biomass);</li> <li>- State Committee for Land Resources, Geodesy and Cartography and State Cadastre of the Republic of Uzbekistan (data on pasture areas);</li> <li>- The State Committee for Land Resources, Geodesy and Cartography and the State Cadastre of the Republic of Uzbekistan (data on the areas of cultivated land</li> </ul>
<i>Waste</i>	
Solid waste disposal	<ul style="list-style-type: none"> <li>- State Committee of the Republic of Uzbekistan on ecology and environmental protection (collection of the necessary information on the amount of exported waste, calculation of waste generation coefficients, morphological composition, etc.);</li> <li>- State Committee of the Republic of Uzbekistan on statistics (data on the size of the urban population)</li> </ul>
Wastewater Treatment and Disposal	<ul style="list-style-type: none"> <li>- The State Committee of the Republic of Uzbekistan on Statistics (data on the population covered by sewage services, on the production of certain types of industrial products);</li> <li>- State Committee of the Republic of Uzbekistan on ecology and environmental protection (data on wastewater treatment systems)</li> </ul>

36. Uzhydromet is involved in the work on UNFCCC realization and other global environmental conventions in the country. Uzhydromet is responsible for the implementation of National Communications for the UNFCCC, monitoring of the Climate Change and provision of forecasts, contribution to estimation of its impact, and to measures and variants of strategies of reaction to Climate Change. The international obligations such as WMO, UNFCCC (including regular inventory of GHG), is also the responsibility of Uzhydromet. The Ministry of Economics was appointed as the National Body of the Republic of Uzbekistan on CDM through the Programme No. 525 published on 6 December, 2006. The decision No. 9 of the Cabinet of the Republic of Uzbekistan on 10 January, 2007 consolidates the order of preparation and realization of investment projects in the country for the CDM projects. The institutional structure of UNFCCC related activities in Uzbekistan is presented in Figure 2.



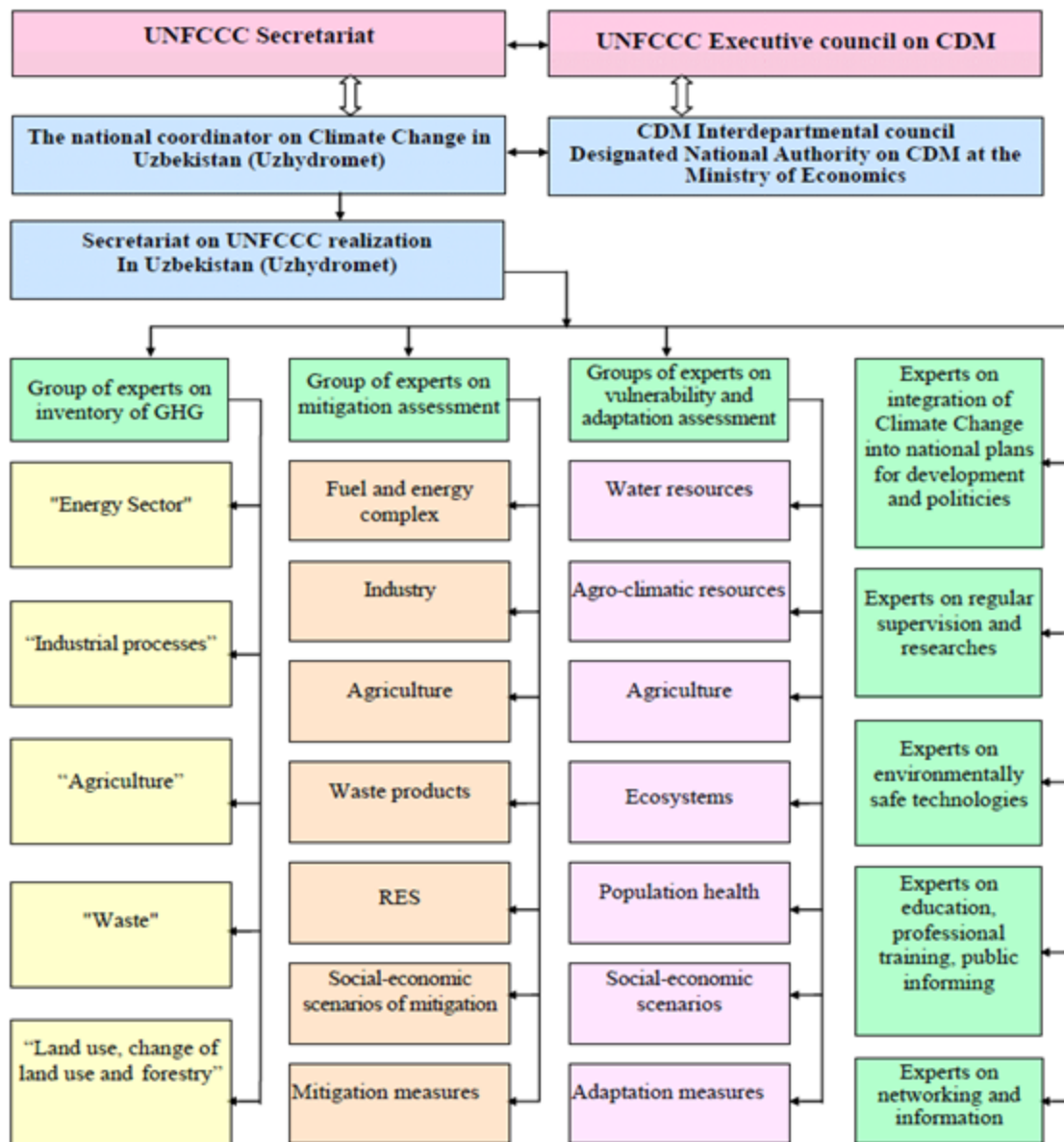


Figure 2: Organizational structure of UNFCCC related activities in Uzbekistan (Source: SNC, Uzbekistan[35]<sup>33</sup>).

37. The institutional structure of adaptation related data collection is presented in Table 4.

Table 4: Institutional structure of adaptation-related data collection.

Organization	Role
Uzhydromet	<p>UNFCCC Focal Point</p> <p>Coordinator for the preparation of National Communication and other information related to adaptation.</p> <p>Formation of a team of sectoral experts.</p> <p>Interaction with the UNFCCC bodies and other international organizations.</p> <p>Interaction with stakeholder organizations.</p> <p>Capacity building of national experts in the field of adaptation.</p> <p>Preparation of reporting documents on adaptation to climate change in Uzbekistan for the UNFCCC.</p> <p>Preparation of the National Adaptation Plan.</p> <p>Development and updating of NDCs.</p> <p>Conducting comprehensive scientific research of regional processes of climate change and assessing the impact of the consequences of these changes on the sectors of the economy and the living conditions of the population.</p>
Ministry of Agriculture	<p>Introduction of the achievements of science and technology, modern resource-saving agricultural technologies, advanced experience in agriculture.</p> <p>Submission of data for NDC revision.</p> <p>Development and implementation of projects for the application of climate-resistant and water-saving technologies in agriculture.</p> <p>Carrying out measures to increase fertility and improve agricultural land.</p> <p>Development of adaptation measures and provision of data on their implementation in agriculture.</p>
Ministry of Water Resources	<p>Improving the efficiency of water use. Introduction of modern technologies to improve land reclamation and reduce the level of salinity.</p> <p>Development and implementation of projects for the application of climate-resistant and water-saving technologies in water management.</p>
Ministry of Health	<p>Preparation of a set of necessary data, analysis of data on the impact of climate change on public health</p>
State Committee of the Republic of Uzbekistan on Statistics	<p>Preparation of a set of necessary statistical data (at the request of Uzhydromet)</p>

Organization	Role
State Committee of the Republic of Uzbekistan on forestry	<p>Implementation of measures for the conservation and restoration of forest resources.</p> <p>Development and implementation of measures to prevent desertification, reforestation and protective afforestation in the republic.</p> <p>Afforestation of the dried-up bottom of the Aral Sea.</p> <p>Providing data for updating the NDC.</p> <p>Implementation of projects to prevent desertification, combat land degradation, reforestation and protective afforestation in the republic.</p> <p>Providing information on the development and implementation of adaptation measures in forestry.</p>
Scientific Research Hydrometeorological Institute (NIGMI) at the Centre of Hydrometeorological Service (Uzhydromet)	<p>Studies to assess the country's expected IC for the future in accordance with scenarios of global GHG emissions, assess the impact of IC on the key sectors of the country's economy.</p> <p>Assessment of water, climatic, agro-climatic resources and agroecology, their changes under the influence of natural and anthropogenic factors.</p> <p>Providing data for the preparation and updating of NDCs.</p>
JSC, UZGIP	Submission of research data on IC vulnerability for preparation and updating of NDCs.
Scientific Research Institute of Forestry	<p>Development of measures for adaptation of forestry to climate change.</p> <p>Providing information on adaptation measures in forestry.</p>

## 2.6 Legal and Regulatory Framework on Climate Change

38. Uzbekistan shows the national aspiration to actively contribute towards global climate change combat efforts through different national policies, mitigation and adaptation measures throughout the past decade. It is therefore an opportune time to take stock of the current situation in the country, identify necessary improvements and develop a roadmap for how they will be addressed between now and 2024. Table 5 presents some of the national legislation and policies relevant on climate change, and the notable ones are discussed in the subsequent sections.

Table 5: National legislation and policies relevant climate change adaptation and mitigation.

Type	Legislation, Policies and Plans
Overarching instruments	<p><b><i>Constitution of Uzbekistan</i></b></p> <p>(i) <i>All citizens shall protect the environment (Article 50)?.</i></p> <p>(ii) <i>.....The use of any property must not be harmful to them ecological environment, nor shall it infringe on the rights and legally protected interests of citizens, juridical entities or the state (Article 54)?.</i></p> <p>(iii) <i>The land, its minerals, fauna and flora, as well as other natural resources shall constitute the national wealth, and shall be rationally used and protected by the state (Article 55)?.</i></p> <p>(iv) <i>The joint conducting of the local bodies of authority shall include..... protection of the environment (Article 100)?.</i></p> <hr/> <p><b><i>Strategy for the transition of the Republic of Uzbekistan to a green economy for the period 2019 - 2030</i></b></p> <p>Approved by: No. PP-4477 from 04.10.2019</p>
Implementation of the obligations under the UNFCCC	<p><b><i>Decree of the President, No. PP-4896 dated 17.11.2020 On Measures for Further Improvement of the Activities of the Centre of Hydrometeorological Service of the Republic of Uzbekistan?</i></b></p>
Air emission reduction	<p><b><i>Law No. 353-I of 1996 on the Protection of Atmospheric Air</i></b></p> <p>Article 24 specifies that enterprises and institutions are obliged to save fuel and energy resources through introduction of energy saving technologies and alternative energy sources, thereby reducing GHGs emission.</p>
Energy	<p><b><i>Law No. 412-I of 1997 on the Rational Use of Energy</i></b></p> <p>The Law envisages state control over compliance with indices of energy efficiency and energy quality, established by normative documents?, which should be revised every 5 years (Article 6). Article 10 notes that the State committee on statistics is responsible for carrying out statistical observations of energy generation and consumption.</p> <hr/> <p><b><i>Decree of the President 6 December 2006, No PP-525</i></b></p> <p>On Measures for Implementation of Priority Investment Projects within Clean Development Mechanism of the Kyoto Protocol.</p>

Type	Legislation, Policies and Plans
	<p><b><i>Decree of the Cabinet of Ministers 10 January 2007, No 9</i></b></p> <p>Provision on Procedure for Preparation and Implementation of Investment Projects under Clean Development Mechanism (CDM) within the Kyoto Protocol Framework.</p> <p><b><i>Decree of the President 5 May 2015, No PP-2343</i></b></p> <p>On Program of Measures for Reduction in Energy Consumption, Introduction Energy Saving Technologies in Economy Sectors and Social Sphere for 2015-2019</p> <p><b><i>Decree of the Cabinet of Ministers 22 August 2009, No 245</i></b></p> <p>On Approval of Rules for Use of Electrical and Thermal Energy.</p>
Electricity industry	<p><b><i>Law on electricity industry of September 30, 2009</i></b></p> <p>The Law secures the existing legal framework in this sector.</p> <p><b><i>Decree of the Cabinet of Ministers 17 February 2010, No 23</i></b></p> <p>On Measures for Implementation of Law of the Republic of Uzbekistan ?On Electrical Energy Industry.</p>
Renewable energy	<p><b><i>The Renewable Energy Law</i></b></p> <p>It entered into force on 22 May 2019 providing comprehensive regulation on renewable energy sector.</p> <p><b><i>Decree of the President 1 March 2013, No UP-4512</i></b></p> <p>On Measures for Further Development of Alternative Energy Sources</p> <p><b><i>Decree of the President 1 March 2013, No PP-1929</i></b></p> <p>On Establishment of International Solar Energy Institute.</p> <p><b><i>Decrees of the Cabinet of Ministers 16 November 2015, No 331</i></b></p> <p>On Program for Development of Hydropower Industry for 2016-2020.</p> <p><b><i>Decree of the Cabinet of Ministers 26 November 2015, No 343[36]<sup>34</sup></i></b></p> <p>On Measures for Promotion of Biogas Plants Construction in Cattle Breeding and Poultry Farms of Republic.</p>

Type	Legislation, Policies and Plans
Agriculture and livelihoods	<b><i>Agriculture Development Strategy of the Republic of Uzbekistan for 2020 - 2030</i></b> Approved by: No. UP-5853 from 23.10.2019
	<b><i>Decree of the Cabinet of Ministers 5 June 2013, No 158</i></b> On Measures for Gradual Renewal of Pump/Power Equipment in Water Management Organizations of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan in 2014- 2018.
	<b><i>Decree of the Cabinet of Ministers 29 August 2015, No 255</i></b> On Integrated Program for Mitigation of the Aral Sea Disaster Impacts, Rehabilitation and Socio- economic Development of Priaralie Region for 2015 ? 2018.

39. Decree of the Cabinet of Ministers October 20, 2018 No 841[37]<sup>35</sup> is focused on *measures to implement the National goals and objectives in the field of sustainable development for the period up to 2030*. National goals and targets in the field of sustainable development for the period up to 2030 were approved including:

? Goal 13. Take urgent action to combat climate change and its impacts.

(a) Task 13.2. Include climate change response measures in the policy, development strategy at the national level, paying special attention to the measures implemented in the Aral Sea region.

(b) Task 13.3. Improve enlightenment and awareness, as well as the ability of people and institutions, organizations and enterprises to prevent the consequences of climate change, adapt to them and early warning of the risks of dangerous climatic events.

40. The president of the country approved in October 2018 *the strategy for the transition of the Republic of Uzbekistan to a green economy for the period 2019-2030*[38]<sup>36</sup>. This strategy according to Appendix No. 1, defines the priority areas for its implementation:

? increasing energy efficiency of the basic sectors of the economy;

? diversification of energy consumption and development of the use of renewable energy sources;

? adaptation and mitigation of the effects of climate change, increased efficiency in the use of natural resources and the preservation of natural ecosystems; and

? development of financial and non-financial mechanisms to support the green economy.

41. Some of the targets by 2030 under this strategy are:

? reduction of greenhouse gas emissions intensity per unit of gross domestic product by 10% from the 2010 level;

? twofold increase in the energy efficiency indicator and a decrease in the carbon intensity of GDP;

? development of renewable energy sources, bringing their share to 25% or more of the total electricity generation;

? ensuring access to modern, inexpensive and reliable power supply for up to 100% of the population and sectors of the economy;

? modernization of the infrastructure of industrial enterprises, ensuring their sustainability by increasing energy efficiency by at least 20% and using clean and environmentally friendly technologies and industrial processes; and

? expanding the production and use of motor fuels and vehicles with improved energy efficiency and environmental friendliness, as well as the development of electric transport.

42. The Article 4. of this strategy is focused on the development of financial and non-financial mechanisms to support the "green" economy. The 20th Paragraph - Building capacity and creating an enabling environment for the transition to a green economy- includes the following goals:

? creation of a monitoring, reporting and verification system (MRV) on greenhouse gas emissions, considering national circumstances, to continuously monitor the implementation of the country's quantitative obligations under the Paris Agreement and ensure reporting on greenhouse gas emissions; and

? development of a climate monitoring system, development of the potential of public-private partnerships to promote "green" technologies; etc

43. The plan of actions for 2020 for the implementation of this strategy was approved in November 2019. This plan of actions include the following activities : (i) adaptation and mitigation of climate change, (ii) increase of the efficiency from the natural resource management and conservation of natural ecosystems, (iii) evaluation of the effectiveness of the adaptation measures and mitigation of

climate change by the following mechanism of realization-preparation of the first biennial update report with the revised data on GHG emissions (Deadline ? December 2020), (iv) conducting inventory of GHG emissions for the period 1990 ? 2017 (deadline 2019-2022), and (v) Preparation of national sectoral adaptation plan (2019-2022).

44. The following strategies are indirectly and directly support the climate change activities in the different sectors. Also Annex D presents the national initiatives towards GHG emission reduction.

? The strategy of Action for the Five Priority Development Areas of Uzbekistan in 2017-2021 (PD 4849 of 14.02.2017).

? Agriculture Development Strategy of the Republic of Uzbekistan for 2020 ? 2030. Approved by: No. UP-5853 from 23.10.2019.

? The water development concept for 2020 ? 2030 (Presidential Decree (PD) 6024 dated 07/10/2020).

? The Concept for environmental protection till 2030 (PD 5863 of 10/30/2019).

? The strategy of development of agricultural industry of the Republic of Uzbekistan (PD 5853 of 23.10.2019).

? The Concept of forestry development until 2030 (Presidential Order 4850 dated 6.10.2020).

? Strategy for the Development of the Transport System of the Republic of Uzbekistan until 2035.

? Strategy according to the treatment of municipal solid waste in the Republic of Uzbekistan for 2019-2028 (PP-4291 of 17.04.2019).

? Strategy for innovative development of the Republic of Uzbekistan for 2019-2021. Approved by: No. UP-5544 from 21.09.2018.

? The concept of providing the Republic of Uzbekistan with electrical energy for 2020-2030.

## 2.7 Baseline initiatives towards ensuring transparency in Climate Change

45. Centre of Hydrometeorological Service (Uzhydromet), Ministry of Economic Development and Poverty Reduction, Ministry of Finance, State Committee for Ecology and Environmental Protection, Ministry of Agriculture, Fund for Reconstruction and Development of Uzbekistan, national



banks, central and regional municipal authorities are implementing a GCF readiness proposal focused on 1) building and strengthening the institutional capacity of national entities, with a focus on enabling direct access; 2) helping Uzbekistan to prepare climate change mitigation and adaptation investment strategies, programmes and projects, including through the active involvement of the private and financial sectors. The project is implemented with support from the UN Environment, UNDP, and WRI.

46. Since 2019 UNDP/UNEP Global Support Programme provides technical support for the region of Central Asia and the Caucasus. The Central Asia Network on MRV and Transparency was established in 2020 to maintain a dialogue on climate change reporting requirements under the UNFCCC and to proceed to the Enhanced Transparency Frameworks (ETF) by 2024. Within two regional network meetings both members and key stakeholders were updated on the progress made by the countries of Central Asia in succeeding towards establishing their domestic MRV within the assistance received from the GSP Programme. Within this initiative the technical and institutional capacity were assessed on establishing the MRV system in Uzbekistan. The following gaps and opportunities of each element of the system were identified, with a particular focus on (a) institutional arrangements, (b) institutional structure and set-up, and (c) legal and regulatory frameworks for climate change actions in Uzbekistan. The results of the poll, which asked the participants to answer what type of difficulties they face in establishing the domestic MRV systems, showed that the lack of capacity of government agencies dealing with climate policy is the biggest challenge. Additionally, the lack of materials (handbooks, guidance) in Russian and poorly functioning institutional mechanisms at the national level also bring difficulties in their work process

47. The Government has developed a development strategy titled "Year of support of active entrepreneurship, innovative ideas and technologies". To implement the strategy, key ministries and agencies prepared a detailed work plan based on five priority directions, with agriculture modernization being one of them. The measures include, among others: development of agriculture policy and a suit of regulations; agriculture diversification plan; food safety measures; market-based mechanisms in the production, sale and processing of raw cotton; efficiency of water resources use in agriculture, further expansion of areas with water-saving technologies; improvement of reclamation state of irrigated lands and ensuring rational use of water resources.

48. The Ministry of Agriculture (MoA) and with support from FAO, is implementing national components of GEF regional program "Integrated Natural Resources Management in Drought-prone and Salt-affected Agricultural Production Landscapes in Central Asia and Turkey (CACILM2-)". Other national activities relevant to CBIT proposal are the following:

- (i) strengthening of drought preparedness processes planning at national level;
- (ii) development of regional approaches for mapping drought vulnerability;

- (iii) strengthening the inter-sectoral mechanism for cooperation on issues of the land use;
- (iv) establishment of and training for a web of hydro-meteorological stations throughout the country;
- (v) improvement / introduction of integrated methods for weather/drought forecasting (including application of remote sensing) and water flow management in river basins, including development of snow cover monitoring;
- (vi) assessment of impacts and risks of drought frequency on crop yields; and
- (vii) introduction of drought-resistant seeds, water saving technologies, agro-forestry, and improved pasture management in select landscapes.

49. FAO has an extensive experience at the supporting CBIT activities. Such, the project 'Building global capacity to increase transparency in the forest sector (CBIT-Forest)', aims to strengthen the institutional and technical capacities of developing countries to meet the enhanced transparency requirements of the Paris Agreement, responding to Article 13 and contributing to tackling climate change. The project is supported by the Capacity-building Initiative for Transparency (CBIT) trust fund established under the Global Environment Facility (GEF). Several projects implemented within this program are focused on strengthening capacities on forest-related data collection and the analysis and dissemination process to meet the transparency framework requirements. To improve access to forest-related data, the FAO Global Forest Resources Assessment (FRA) reporting platform is helping the member countries to improve their reporting capacity. The project develops also a set of knowledge and training materials on topics related to the Enhanced Transparency Framework in the forest sector and shares best practices and case studies on successful, transparency-related activities. The current project will contribute to the program by expanding the geographical area of strengthening of technical capacity of governmental counterparts in pilot countries in reporting, accuracy and consistency of forest-related data, by bringing the understanding of the gaps in the country and exchanging the knowledge among transparency practitioners and experts.

50. Another FAO's programme, namely the Mitigation of Climate Change in Agriculture (MICCA) programme, supports countries participating in the climate change negotiation processes within the United Nations Framework Convention on Climate Change. The MICCA programme generates technical knowledge, working on the ground and with partners to:

- ? monitor and assess greenhouse gas (GHG) emissions and the mitigation potential in agriculture;
- ? develop the capacity of stakeholders working on national GHG inventories and farmers using Climate Smart Agriculture (CSA) practices;

- ? carry out life cycle assessments to guide decision making;
- ? give guidance on climate change mitigation & adaptation options, including for peatlands and organic soils;
- ? mainstream gender in CSA; facilitate online communities of practice; and run online learning events.

51. MICCA implemented successfully several projects in Africa as part of its programme on capacity development, supporting the regular updating and submission of national greenhouse gas (GHG) inventories to the UNFCCC. Focus has been given to regional, sub-regional and country level activities. MICCA provides capacity development and technical support to countries seeking advice on how to formulate national plans and policies for agriculture sectors, in line with UNFCCC requirements. One example of this has been through the framework of Nationally Appropriate Mitigation Actions (NAMAs). The current project will contribute to the program by sharing the specific climate change situation of the country and respective agricultural challenges, the gaps and advantages of the current MRV system. By enhancing the database for cc adaptation and mitigation measures using different tools as NAMA learning tool, Life Cycle Assessments, GLEAM.

52. There is a project 'Global capacity-building towards enhanced transparency in the AFOLU sector (CBIT-AFOLU)' led by MICCA<sup>[39]</sup><sup>37</sup> that is implementing in different countries from 2019 till 2021. The main relevant components of the project that can be used for this project are:

? Component 1: Supporting developing countries to strengthen their capacity to establish and sustain the institutional arrangements needed to respond to the Enhanced Transparency Framework (ETF) requirements and improve decision-making processes

? Component 2: Building developing countries' technical capacity to establish robust systems to measure, report and verify GHG emissions and removals, and to monitor and evaluate adaptation actions in the AFOLU sector in accordance with the ETF.

? Component 3: Sharing knowledge and improving coordination amongst global transparency practitioners to sustain and scale up institutional and technical capacity improvements in the AFOLU sector.

53. The Executive Committee for International Fund for Saving the Aral Sea (EC-IFAS) and the Ministry of Agriculture of Uzbekistan are implementing national components of a regional program between Uzbekistan and Tajikistan named 'Climate Adaptation and Mitigation Program for the Aral Sea Basin'. The program is financed by the GCF. GCF's engagement will allow support for the adoption of climate-smart rural production and landscape management investments through a regional

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climate investment facility. This will target the poorest and most climate-vulnerable rural communities, benefiting farmers and village in particular. The facility will strengthen climate resilience and food security. Agricultural, land and water management practices will be implemented based on local agro-ecological conditions in order to strengthen climate change resilience. Investments via the facility will be demand-driven, but will include crop diversification, water resource management, rehabilitation of degraded land, conservation agriculture, livestock production improvements, agro-products processing, energy efficiency improvements and expansion of renewable energy sources.

54. Finally, the forestry project "Sustainable Management of Forests in Mountain and Valley Areas", financed by GEF (\$3.2 million) and implemented by the State Committee on Forestry (SCF) with support from FAO, will assist the government to operationalize the improved systems of national forest assessment and monitoring through harmonization of the methodology for data collection, training and equipment of the national forestry staff and maintenance of the forestry information system.

55. Uzhydromet, with the support of UNDP, prepared a Climate Risk Profile of Uzbekistan under the "Climate Risk Management (CRM) of Uzbekistan" project (2015-2016). The project raised awareness 1,000 farmers on water availability forecasts and the use of recommendations regarding water saving approaches. It also raised the awareness people from national ministries and agencies, the farming industry, associations of water users, regional and district administrations and local communities, academia, NGOs, mass media, research centres and other related organisations, in regards to climate-related risks and disasters.

56. Recently UNDP implements their program "Climate Promise in order to support the Government in the NDC revision process by revisiting and improvement of the national statistics, and sector-based development targets set by the Government by 2025. By reconsideration of NDC declared in 2017 (signature of the Paris Agreement) and based on the Strategy for Transition to Green Economy by 2030 adopted in October 2019, the scope includes updating statistical data/information and updating targets. It is planned that a new version of the document will be prepared in 2021.

57. Currently, Uzbekistan has not yet adopted a legal act defining the national MRV system and its activities. The lack of a legal framework impedes the implementation of the MRV system. This document is under preparation. The structure of the internal MRV system is being developed as part of the First Biennial Update Report. The GHG inventory system under the UNFCCC is an already well established MRV system aimed at monitoring GHG emissions. For the preparation of the GHG inventory and the assessment of mitigation measures, an institutional structure has been created,

including key ministries and departments, whose activities are accompanied by GHG emissions or are related to considering relevant information.

## 2.8 *Gaps and barriers affecting the enhanced transparency framework of Paris Agreement*

58. The TNC has identified a number of general key barriers and challenges for enhanced transparency in monitoring mitigation and adaptation actions in the different sectors as mentioned below:

? Insufficient knowledge regarding the ETF and the new methodologies and procedures respective to the provisions under the Paris Agreement;

? Gaps in the coordination mechanism amongst relevant Ministries and other stakeholders in the gathering of data and information needed to report under the provisions of Paris Agreement;

? Insufficient experience with measuring, reporting and verification (MRV) systems for emissions from the different sectors;

? Limited capacity of quality assurance or control mechanisms in the preparation and reporting of emissions inventories and emissions reduction activities;

? Limited capacity to implement, monitor, evaluate and report adaptation actions;

? Limited capacity to assess of climate change risks (including sensitivity, vulnerability and capacity assessment);

? One of the key limitations of data management that also constrains the setting of priorities and strategic objectives for the country is the lack of gender statistics and sex-disaggregated data. The State Statistics Committee maintains a gender statistics database covering eight topics (including labour, healthcare, education and social protection). Such gender statistics are a useful starting point but none of the indicators in the database corresponds to the FAO Core Set of Gender Indicators in Agriculture (see FAO, 2016a, Agri-Gender Statistics Toolkit).

? GHG Inventory:

o Tier 1 methodologies of the IPCC Guidelines (1996) was previously used for preparation of GHG inventory.

59. The transition to the 2006 IPCC Guidelines recently was made in the current inventory for all sectors. That is why it is necessary to increase the capacity of experts and develop national coefficients, including in the agricultural sector. Limited coordination between the ministries and agencies involved in this process on the issues of climate change

60. The identified data and training capacity gaps as per the consultation with the Uzhydromet during the preparation of this PIF are presented in Table 6 and 7, respectively:

Table 6: Data gaps hindering the ETF compliance in Uzbekistan.

Sector	Capacity gaps
Energy	Improving the accuracy of estimates of fuel consumption for fuel balances (Goskomstat).
Agriculture	Detail of activity data in the Livestock category, including livestock characteristics, livestock feed ration, manure distribution system.
Forestry and Other Land Use change	Harmonization of estimates of forest inventories carried out by the State Committee for Forestry for the period 1990-2017. Detailing of data on areas of pastures and arable lands. Obtaining data on the transfer of land from one category to another.
IPPU	Information about the technologies of production processes and their share in the total production of each product. Obtaining data on the production of zinc, lead for the period from 1990 to the current moment. Clarification of data on steel production.
Wastes	Clarification of information and activity data by sector category. Including: clarification of emission factors in the category "Solid waste"; clarification of wastewater distribution in treatment systems.

Table 7: Technical capacity development needs to comply the ETF in Uzbekistan focusing on climate change mitigation and adaptation.

Technical capacity need	Targeted organization
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Technical capacity need	Targeted organization
Improvement of the GHG inventory system	Uzhydromet
Implementation of transparency principles in inventory preparation and reporting to the UNFCCC (in Biennial Transparency Report (BTR))	Uzhydromet
Preparation of a roadmap for the creation of an MRV system	Uzhydromet, Ministry of Energy, State Committee for Statistics, Ministry of Agriculture, State Committee for Ecology and Environmental Protection, , State Committee for Forestry, JSC Uzkimyosanoat, Association for Industrial Construction Materials,
Development of sectoral GHG inventory guidelines (for large emission sources)	Uzhydromet, Ministry of Energy, Ministry of Agriculture, State Committee for Ecology and Environmental Protection, State Committee for Land Geodezcadastre, State Committee for Forestry, JSC Uzkimyosanoat, Association for Industrial Construction Materials, State Committee for Statistics
Principles of creating an MRV system	Uzhydromet, Ministry of Energy, State Committee for Statistics, Ministry of Agriculture, LLC Uzgip, Ministry of Agriculture, Ministry of Economic Development and Poverty Reduction, State Forestry Committee of the Republic of Uzbekistan, sectoral research institutes of the Academy of Sciences, etc.
Development of indicators and approaches to assessing the effect of adaptation measures	Uzhydromet, the Ministry of Energy, State Committee for Statistics, the Ministry of Agriculture, Uzgip LLC, the Ministry of Water Resources, the Ministry of Health, the State Committee on Forestry, sectoral research institutes of the Academy of Sciences, etc.
Trainings on methodologies, approaches to assessing vulnerability to climate	Uzhydromet, Ministry of Energy, State Committee for Statistics, Ministry of Agriculture, Uzgip LLC, Ministry of Economic Development and Poverty Reduction, State Committee on Forestry of the Republic of Uzbekistan, etc.
Assessment of financial resources and financing of adaptation issues	Uzhydromet, Ministry of Energy, State Committee for Statistics, Ministry of Investments and Foreign Trade, Ministry of Agriculture, LLC ?Uzgip?, Ministry of Water Resources, Ministry of Economic Development and Poverty Reduction, State Committee on Forestry, etc.
International experience of preparation and adaptation projects in vulnerable sectors (pastures, forests, water resources, mountain ecosystems, etc.)	Uzhydromet, Ministry of Agriculture, Uzgip LLC, Ministry of Water Resources, Ministry of Economic Development and Poverty Reduction, State Committee for Forestry of the Republic of Uzbekistan, etc.

Technical capacity need	Targeted organization
Methods and approaches to informing the population and the public in addressing adaptation to climate change,	Uzhydromet, the Ministry of Agriculture, Uzgip LLC, the Ministry of Water Resources, the Ministry of Economic Development and Poverty Reduction, the State Committee of the Republic of Uzbekistan on Forestry, NGOs, etc.

61. As per the consultation with the Uzhydromet and TNC key gaps and barriers that should overcome are:

? *Barrier 1- Limited knowledge and understanding of national stakeholders? capacity on Transparency Framework (ETF):*

Methods and approaches to comply with the ETF requirement at this moment is absent. It is needed to strengthen the national policy regime on climate change actions focusing on Enhance Transparency Framework (ETF).

? *Barrier 2-lack of integrated, systematic, continuous coordination and institutional mechanism:*

Currently both climate change mitigation and adaptation data are collected and organized by sending official letters of inquiry to stakeholder organizations and by appointing experts. The system is not regularly collecting, updating and managing the data through a coordinated permanent institutional structure, rather it is an ad-hoc basis system.

? *Barrier 3- Limited technical expertise and knowledge on monitoring and tracking of adaptation actions:*

There is no sectoral transparency guidelines, indicators, and protocols are established for NDC climate change adaptation actions tracking. Besides, there is lack of technical expertise and knowledge to track the support received and progress of NDC adaptation actions.

? *Barrier 4- Limited technical expertise and knowledge of measuring, reporting, and verification (MRV) of GHG emission:*



The existing data collection system is manual by sending data request letter, and then after collecting the data (electronic/paper) is then archived in the inventory database of Uzhydromet. Besides, there is a lack of expertise and data gaps on (i) improving the accuracy of estimates of fuel consumption, (ii) activity data in the Livestock category, including livestock characteristics, livestock feed ration, (iii) harmonization of estimates of forest inventories, and (iv) activity data by wastes sector category and waste characterization.

3) *Proposed alternative scenario with a brief description of expected outcomes and components of the project*

62. The Capacity-building Initiative for Transparency (CBIT), as per paragraph 85 of the COP decision adopting the Paris Agreement aims: (a) to strengthen national institutions for transparency-related activities in line with national priorities; (b) to provide relevant tools, training and assistance for meeting the provisions stipulated in Article 13 of the Agreement; (c) to assist in the improvement of transparency over time. Therefore, based on needs and priorities from Uzbekistan and following CBIT Programming directions paragraphs 18 and 19, this project has been developed aiming to strengthen institutional and technical capacities of the different sectors to meet enhanced transparency requirements as defined in Article 13 of the Paris Agreement.

63. The GEF alternative scenario is to develop and implement a capacity building program that will draw upon the CBIT fund to ensure that by 2023-2024 Uzbekistan is preparing reports for different sectors consistent with the requirements of the ETF including inventories of emissions sources and sinks and information necessary to track progress against priority actions identified in Uzbekistan's NDC. The project will support the capacity building and development of information on GHG emissions for the following sectors: energy, industrial processes and product use, agriculture, LULUCF and waste. Data for GHG inventory and MRV system will be organized in an effective manner, and the process of the national inventory of greenhouse gas emissions (by sources) and removals (by sinks) will be improved. Other activities will include: tracking nationally determined contributions (NDCs), enhancement of greenhouse gas (GHG) inventories and economic and emission projections; Climate change impacts and adaptation as part of Biennial Transparency Report (BTR). This project will support the adjustment to the new methodological approaches, strategies and mechanisms for data collection and data management, adaptation monitoring, evaluation, and communication measures. This project will also help national institutions in quantifying and reporting impact of policy measures, as well as enhancement of the sex-disaggregated data management.

64. As a long-term result, Uzbekistan will improve country's ability to effectively define and implement climate change related policies and measures. On the other side, the effective MRV system will enable more accurate information, monitoring and assessment of the instruments that the country selects to face climate change. The theory of change (TOC) (Figure 3) underlying this project is based on the premises that the country is willing to achieve climate change mitigation and adaptation goals under the Paris Agreement in the most cost-effective manner, and without compromising the national growth and economic development.

65. In order to build and strengthen capacities in national institutions to enhance transparency, the project is structured in four components, which have related outcomes to reach the objective of the project. All four components of the project are focused at development/incorporation of tools, training and assistance for meeting the provisions stipulated in Article 13 of the Paris Agreement. Components will contribute to the smooth transition from the reporting with biennial update reports (BUR) and national communications to Biennial Transparency Report (BTR) and contribute to the support of the reports on progress towards their NDC, which will inform the Global Stocktake.

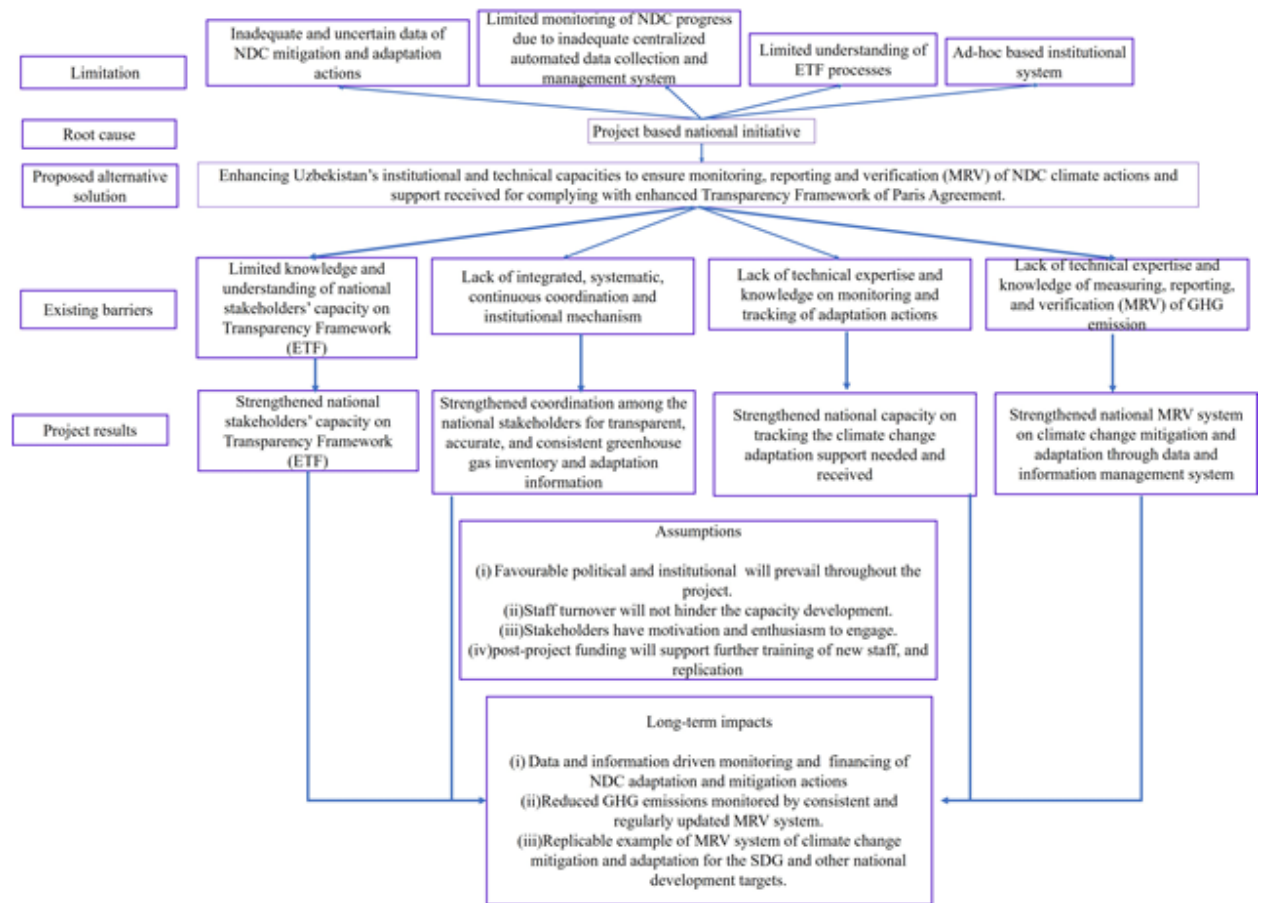


Figure 3: Theory of change of CBIT project in Uzbekistan.

66. This program will target capacity building activities under four components:

***Component 1: Strengthening national stakeholders' capacity on Transparency Framework (ETF) for national climate change actions.***

67. The aim of this component is to organize the smooth transition to the ETF and allow for certain aspects of the ETF reporting to be introduced over time, in a step-wise manner. The experience of FAO within the project led by MICCA mentioned above will be used in order to establish reliable and sustainable knowledge management structures in compliance with the enhanced transparency framework (ETF); to improve institutional capacity and knowledge management structures established in Uzbekistan.

68. Project output 1.1.1 is focused on MRV/transparency needs and gaps assessment. The modalities, procedures and guidelines (MPGs) agreed at COP24 give countries detailed guidance on reporting on climate change mitigation and adaptation and how this information will be reviewed. These rules effectively translate the ETF into action. Thus, it is very important to develop/improve the knowledge of the national stakeholders on MPGs and ETF in order to prepare Uzbekistan to meet the stricter standards of this enhanced framework. This will be achieved through Activity 1.1.1.1? Consultancy to determine the status of ETF and MRV in Uzbekistan; 1.1.1.2. ? Gap analysis for MRV/transparency in relation to the ETF requirements; 1.1.1.3 ? Workshops to discuss the findings of both the status and the gaps.

69. Project output 1.1.2 Uzbekistan Climate Change Actions Enhance Transparency Framework (UZCCETF) roadmap prepared, endorsed, and adopted will be aimed at describing the main steps and stakeholders to be involved in the transition process from MRV to ETF. The roadmap will include milestones under the current MRV framework and map out what the current in-country reporting arrangements regarding the vision of Uzbekistan regarding the time and scope of reporting under Biennial Update Report (BUR) (since first BUR covers the GHG Inventory only till 2017) and Biennial Transparency Report (BTR), next NC with the revised GHG Inventory; place the need for agreement on indicators for NDC tracking and data needs for tracking; to stress in the map a start of capacity building on GHG projections. The roadmap will assist for the guidance how outputs from the reporting and review process under the ETF will be a source of information for the Global Stocktake (GST). This will be achieved through Activity 1.1.2.1 ? Based on 1.1.1.2, organize gender-inclusive discussions to prioritize needs and consultancy to draft UZCCETF roadmap; Activity 1.1.2.2 ? Consultative process (meetings, workshops, translations) to validate and endorse the UZCCETF.

70. These activities will allow for some learning-by-doing before the ETF is in place, and understanding the requirements under the ETF, and how they differ from the current MRV framework. The activities under these outcomes will organize the subsequent work in order to meet the reporting targets in 2023 and 2024 in order to become compliant with the ETF. Moreover, the opportunities for synergy between implementing ETF and monitoring progress towards SDGs will be assessed in order to facilitate the optimized use of resources required in tracking progress and reporting process (esp. data generation) at a country level; and thereby contribute towards addressing the SDGs and climate change. National GHG inventories and tracking progress of NDCs will play a crucial role to identify the potential linkage between SDG indicators and MRV/transparency elements.

71. Under the output 1.1.3 implementation of targeted priorities related to the enabling environment identified in the UZCCETF, the activities are: Activity 1.1.3.1 - Consultative process to prioritize regulatory requirements to ensure ETF is met; Activity 1.1.3.2 - Operational Uzbekistan National ETF Steering Group involving the line government agencies, Activity 1.1.3.3 Technical capacity building through training on ETF, and Activity 1.1.3.4 National stakeholder's awareness-raising on ETF requirement, process and procedure of Paris Agreement through knowledge materials on the local language. The Operational Uzbekistan National ETF Steering Group does not exist currently and is aimed to solve the gaps in the joint management of the reporting under the Paris Agreement. The training is aimed to increase long-term capacity building to eliminate the need for external consultants. It will involve a wide range of national institutions by several sectoral administrations and stakeholders, including academia, civil society and the private sector, both on the processes necessary to operate the MRV system of the different sectors and to explain the transition to ETF. These activities will mainstream the transition and new requirements in the ETF process, and support the improvement of the existing institutional coordination mechanisms for ETF reporting integrating relevant institutions/ stakeholders into national UNFCCC reporting processes. Whereas Component 2 builds capacities for improved measurement of climate-change mitigation, Component 3 builds the corresponding capacities for climate-change adaptation. Finally, Component 4 focuses on NDC targets tracking in the mitigation activities and support needed and received.

***Component 2: Strengthening coordination and reporting among the national stakeholders for transparent, accurate, and consistent greenhouse gas inventory.***

72. Under this component the capacity building activities will address barriers associated with institutionalization/formalization of the data collection/management process (Output 2.1.1) to ensure that information and data from relevant sectors is integrated into national ETF processes and reports. Since the MPGs strengthen rules for preparing national GHG inventories and tighten reporting requirements for developing countries, information such as key category analysis, uncertainty assessment and consistent time series are currently encouraged under existing transparency

requirements but will be required under the ETF<sup>[40]</sup><sup>38</sup>. Activities implemented under this component will be closely coordinated with ministries and private sector. The activities are: Activity 2.1.1.1 Gap analysis of institutional coordination to meet the ETF procedure for national GHG inventory, Activity 2.1.1.2 Permanent institutional arrangement endorsed for the data collection, sharing and management with details guideline involving Uzhydromet, and other line ministries/agencies (e.g. Ministry of Energy, Ministry of Agriculture and Ministry of Water Resources, the State Committee on Forestry and International Estimates, Goskomstat, Uzbekistan Airways, the State Statistics Committee and the State Committee on Ecology and Environmental Protection), with the creation of the GHG Inventory Technical Workgroup and Activity 2.1.1.3 Institutional focal persons are identified and formalized through ministerial decree for data collection and processing involving the ministries/agencies related to climate change mitigation and adaptation. The output 2.1.2. will focus on enhancing technical capacity on GHG emission estimation based on 2006 IPCC Guidelines. The scope of this Component (Activity 2.1.2.1 Enhancing estimations of GHG emissions through gender sensitive training in the energy and Industrial Processes and Product Use sectors by involving the private sectors.; Activity 2.1.2.2 Improving capacity of the national experts to apply the use of IPCC tier 2 methodologies for agricultural sector through gender sensitive training; Activity 2.1.2.3 Enhanced capacity of the national experts for consistent representation of land-use categories and land use change from forestry (LULUCF) sector and GHG emission estimation through gender sensitive training; Activity 2.1.2.4 Enhanced capacity of the national experts with updated Waste sector baseline information and gender sensitive training for GHG emission estimation by involving State Committee of the Republic of Uzbekistan on ecology and environmental protection, industrial enterprises and public services; Activity 2.1.2.5. Several tools and methodologies applied within the MICCA Program to integrate climate change mitigation into agricultural, forestry and land management policies and practices. These tools also provide guidance on investment in improved technologies and agricultural practices; Activity 2.1.2.6. Knowledge from CBIT Forest shared to improve technical capacity on data collection, analysis and dissemination of forest-related data to respond to the ETF) will strengthen capacity in the key sectors. In terms of GHG inventories, Uzbekistan started recently to use the 2006 IPCC guidelines. Thus, the training will include greenhouse gas inventory arrangements and management, data gathering, compilation, and reporting. An analysis of the data needed for implementing different tiers by sector and emission source, methodological issues by sector, how to use emission factors and activity data, QA/QC, uncertainty analysis and key category analysis will be also included. Reporting refers to the presentation of emission inventory estimates in tables or other formats used to communicate inventory information. It will be a solid foundation into preparation to National Inventory Report, which is part of the National Communication and provides information on the generation of the GHG inventory. All of the activities under this component will result in the establishment of a stronger coordination framework, which will ensure that established capacity is more sustainable in the long term. This component will also strengthen gender disaggregated focal points on climate change in the key institutions. As a result, Uzbekistan will be able to meet the MPGs requirements to report greenhouse gas (GHG) inventories biennially. It will provide a comprehensive picture of human-made national emissions and removal of sinks, making them crucial for tracking progress towards most NDC targets.

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**Component 3: Strengthening national capacity to monitor and report on adaptation activities.**

73. Adaptation-related reporting is encouraged under the Paris Agreement and effectively tracking adaptation progress is critical for informing climate-related policies, which largely focus on adaptation issues and are closely linked to strategies for socio-economic development, especially in the countries of Central Asia. Importantly, this component will ensure that there is the capacity to establish specific, well-informed targets and indicators on adaptation that are country-specific. Compared with current requirements, reporting under the ETF will place additional demands on national transparency arrangements. Thus, the main aim of this component is to improve the fragmented processes into integrated, robust and uniform systems for data collection. Enhanced capacity will enable the relevant sectors to achieve goals specified in the National Adaptation Plan for Climate Change Impacts that is at the stage of the preparation. *Outcome 3.1* will aim at developing/introducing a methodology/system to map and to measure climate change impacts, risks and vulnerabilities and adaptation-related activities relevant in each sector. Additionally, the extent to which these actions address gender will be evaluated more broadly, through gender disaggregated indicators and training. Activities under this outcome will be guided from FAO's Tracking Adaptation in Agricultural Sectors: Climate Change Adaptation Indicators (2017). The activities under this component are: Output 3.1.1. Developed framework to map and to measure climate change impacts, risks and vulnerabilities and adaptation-related activities, Activity 3.1.1.1 Capacity gap assessment focusing on the current system of M&E of impacts, risks and vulnerabilities in each sector, Activity 3.1.1.2 climate change adaptation tracking road map is prepared with guidelines and indicators, Activity 3.1.1.3 Data collection and guidelines are developed to monitor the progress of implementation of adaptation actions, and Activity 3.1.1.4 Providing gender-sensitive training on climate change adaptation actions tracking to enhance the technical capacity of the stakeholders involving NGOs and private sectors. Comprehensively addressing the intersection of gender and climate change is essential for both advancing the fulfilment of women's human rights and gender equality, and effectively addressing the multiple challenges that climate change poses. Thus, this component will introduce the tools to evaluate the extent to which a government has addressed the linkages between gender and climate change in its NDC adaptation actions. Moreover, this component will support the capacity-building to report on adaptation barriers and information on the financial support needed for adaptation. As an outcome of this component, the process of gathering data for analysis and reporting under the ETF can help Uzbekistan to identify and measure adaptation needs, fill knowledge gaps and prioritise areas for further external support. The MPGs also ask countries for information on the use of domestic monitoring and evaluation (M&E) systems for adaptation. This will contribute to taking stock of the implementation of adaptation measures, encouraging learning on their effectiveness and providing inputs for the GST through the ETF. Under the output 3.1.2. Developed monitoring and evaluation system of adaptation actions and processes there are following activities: 3.1.2.1 based on the Activity 3.1.1.1 development of the guideline of the adaptation monitoring and evaluation systems at the levels: national, sub-national, programme and project level. It will also evaluate to which extent consideration of climate impacts and adaptation is embedded across different policy priorities (including NDC, NAP) or in operational and planning decisions; 3.1.2.2 Development

of the portal/ database, where data for the adaptation M&E framework will be stored with the function for feedback loops for all stakeholders to continually assess the framework processes.

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[1] Available via: <http://www.fao.org/3/a-i8145e.pdf>

**Component 4: *Strengthening national system of progress tracking in achieving the Nationally Determined Contribution (NDC).***

74. Both quantitative and qualitative information management will be improved to allow a clear understanding of progress towards the NDCs. The aim of this component is to develop a range of different types of indicators that are needed to track progress towards those targets, as well as evaluation on support needed and received to reach the NDC targets. Activities include: Activity 4.1.1.1 Operational Uzbekistan NDC Information Management System (UZNDIMS) with necessary hardware, server, and software for data collection, archiving, update, and dissemination on NDC mitigation actions, Activity 4.1.1.2 Guideline and protocols developed to operate, maintenance and management of UZNDIMS, Activity 4.1.1.3 Country specific emission factors and activity data for relevant sectors developed, and existing national emission factors and activity data are updated in UZNDIMS, Activity 4.1.1.4 National indicator for tracking the progress of climate change mitigation actions are developed and implemented in UZNDIMS through graphical visualization, **Activity 4.1.1.5 Development a guideline and integrating the data how to do MRV of support.**

75. Again, the implementing project by MICCA will give the advantage to comply with the ETF processes in different sectors through greater access and adoption of new set of MRV tools, as well to establish MRV systems to track NDC priority actions. Through training for stakeholders and information sharing meetings, the CBIT funds will support the strengthening of capacity and mechanisms for data collection and reporting. The use of such mechanisms and platforms will maintain established capacities beyond the lifetime of the project. Regular, reliable and systematic documentation and archiving processes, including quality assurance and control for data and information produced and reported for sector-specific inventories of GHG source and sinks, will also be improved under this component. The activities under this component will underpin more accurate and sustainable measurement, monitoring and reporting (MRV) systems. Activities related to the data management in agricultural and forestry sector will build on the ongoing FAO GEF forestry project and MICCA.

76. Without intervention by the GEF through CBIT it is anticipated that the Government will continue to have under developed capacity to meet the enhanced transparency requirements for reporting against NDC actions or complete reporting for BTR. It is likely that without intervention poor

coordination in the preparation of reports on key mitigation and adaptation activities will continue. Emissions from the relevant sectors will be measured incorrectly, and reports will be produced without proper quality assurance mechanisms. Adaptation actions will be poorly monitored and reported. The continuation of this baseline scenario would not be consistent with the spirit of the Paris Agreement, and the ETF.

77. Effective and system-wide capacity development (CD) approaches are essential to enhance the impact, sustainability and scale of GEF project results through deepening country ownership and leadership of the development process. It is particularly important to address all three CD dimensions interdependently; namely strengthening individual capacities (e.g. knowledge, skills and competencies), organizational capacities (e.g. performance of organizations, cross-sectoral, multi-stakeholder coordination / collaboration mechanisms), as well the enabling environment (e.g. sound regulatory and policy frameworks, institutional linkages and enhanced political commitment and will). So, the proposed CBIT project aimed to develop the capacities of country stakeholders, designing appropriate CD interventions and effectively tracking results. The development of capacities of all stakeholders (men, women, public and private) in this project are therefore an integral and crucial part of the project activities. This is also essential to achieve the desired outcomes and ensure their sustainability. At the end of the project, country actors will have reinforced substantially their capacities including people, institutions and the enabling policy environment.

78. FAO has considerable experience in developing and reinforcing countries' technical and institutional capacities, particularly considering institutional needs, as well as in promoting and facilitating dialogue, consultation and consensus processes with multiple stakeholders. FAO has recognized CD as a catalytic core functions to achieve its strategic results, is implementing a comprehensive corporate strategy[1] and has developed cutting-edge normative and practical methodologies on human, institutional and systemic CD approaches to guide its member countries. Practical tools and methods include how to assess capacities, design appropriate CD interventions and track capacity results jointly with stakeholders. Moreover, FAO has track record to integrate effective CD into climate change specific approaches and projects, including in the GEF projects.

#### ***Component 5: Project monitoring and evaluation***

79. Under the Outcome 5.1, a project monitoring system will be put in place to ensure the effectiveness of the project management process and timely implementation of the planned activities, including regular reporting and the final evaluation. This will be carried out through the development of a performance framework (M&E plan) defining roles, responsibilities, and frequency for collecting and compiling data to assess project performance, project progress reports every six months, and presentation and dissemination of the report to the steering committee and executing partners every six months. The final evaluation of project will be conducted by external consultants, who will work in consultation with the project team including FAO-GEF Coordination Unit, the LTO (Lead Technical Officer), and other partners.



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[1] <http://www.fao.org/capacity-development/en/>

4) *Alignment with GEF focal area and/or Impact Program strategies;*

80. The proposed project aims to improve technical and institutional capacities in Uzbekistan to ensure that the country can monitor, report and verify the climate actions the country proposed in its Nationally Determined Contributions (NDC) framework. The project will also support national efforts to allow for transparency within the framework of the Paris Agreement. The proposed project is aligned with the GEF's Climate Change Focal Area, in particular with objective **CCM-3-8: Foster enabling conditions for mainstreaming mitigation concerns into sustainable development strategies through the Capacity Building Initiative for Transparency**. In particular, the project will (i) strengthen national institutions and stakeholders for transparency-related activities in line with priorities established in the country's NDC, and (ii) assist the government of Uzbekistan to integrate climate change knowledge into decision making and to train relevant stakeholders on transparency activities such as the enhancement of greenhouse gas (GHG) inventories and climate change data collection, management and monitoring.

5) *Incremental cost reasoning and expected contributions from the baseline, the GEFTE, LDCF, SCCF, and co-financing*

81. This CBIT proposal aims to strengthen institutional and technical capacities in different sectors to respond to the enhanced transparency requirements of the Paris Agreement, in line with national priorities. In the absence of CBIT funding, the significant contributions of the ETF framework outlined in this proposal will not be implemented, and Uzbekistan will not be able to be in the conditions to respond to the enhanced transparency requirements although climate change is one of the political priorities for this country.

82. The Government of Uzbekistan has been active recently investing in the enhancement of capacity to meet national targets under CC mitigation and adaptation, as well as to meet requirements of provisions under the Paris Agreement. The Uzhydromet has been carrying out different management and technical activities with the support of international organizations. The GEF resources will build on all related baseline activities to generate global environmental benefits.

83. Under Component 1, the project will contribute to the mitigation of barriers 1 and 2 by the investing around USD 120.000 from GEF funds to finance activities to develop the Climate Change Actions Enhanced Transparency Framework roadmap, including strengthening any regulatory requirements. GEF funds will also be used to provide relevant trainings and carry out awareness raising activities.

84. Under Component 2, around USD 350.000 will contribute to the mitigation of barriers 3 and 4 and will be used to improve the technical capacity of the several Ministries and other relevant national stakeholders to improve the data collection and management, and its coherence with the requirements of the Paris Agreement.

85. Under Component 3, GEF incremental financing (USD 250.000) will be used to develop the framework to track climate change adaptation measures that are very crucial for a country like Uzbekistan. The developed methodology and indicators will frame the targets under NDC.

86. Finally, under Component 4, GEF incremental financing will contribute to the mitigation of barriers 3 and 4 and USD 450.000 will be used to develop the new system to track NDC implementation. If other components are based on the transformation of MRV into ETF, particularly on the improvement of the previous framework, this component will create a completely new system for Uzbekistan.

6) *Global environmental benefits*

87. This CBIT project will contribute to the improvement of local and global environmental conditions through enhanced transparency of coordinated action and planning and capacity-building activities in the different sectors for monitoring and reporting. Increased transparency will contribute to the collective progress towards achieving the purpose of the Paris Agreement and build trust and global confidence in the progress.

88. The global environmental benefits targeted by this proposed capacity building program will flow from the improved coordination and capacity to monitor and report action to address the drivers and impacts of climate change in a transparent manner. These global environmental benefits will include:

? Strengthened systems to adapt to the impacts of climate change in the different sectors based upon improved monitoring and reporting of mitigation and adaptation actions;

? Enhanced contributions from Uzbekistan to collective global efforts to work towards aggregate emission pathways consistent with holding the increase in the global average temperature to well below 2 °C above pre-industrial levels.

89. The global environmental benefits, as mitigated GHG emissions, increased use of renewable energy and decreased use of fossil energy resources, improved energy efficiency, increased adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration, that are articulated in the national policies and strategies, will be promoted during the project implementation and strengthened by the improvement of reporting and tracking systems.

#### 7) *Innovation, Sustainability and potential for scaling up*

90. ***Innovation:*** The proposed project will facilitate scientific innovation through modernization of the national GHG inventory framework and the introduction of new tools, methodologies, including management of gender-disaggregated data on climate change risks, vulnerabilities and capacity as an innovative data analysis and decision-making tool in the context of Uzbekistan. The project will also facilitate the development of tracking tools and platforms to increase Uzbekistan's ability to monitor support received and progress toward their commitments. Data collection processes will be upgraded with the wider application of mobile telecommunications, app-based data collection platforms and cloud-based data storage. Moreover, inter sectorial mechanism of coordination will be innovative for the country, since it lacks of the harmonization between different entities.

91. Innovative tracking tools and platforms will introduce to increase abilities of Uzbekistan to monitor support received and progress toward their commitments. Countries are seeking to build systems that allow them to more effectively track and report on support received. The NDC Partnership also engages with countries through the development of collaborative planning tools that support

deeper understanding of progress toward implementation of climate actions and allow for the tracking of countries' efforts toward the achievement of their nationally determined contributions (NDCs).

92. The guidance, tools and common webinars prepared by the Initiative for Climate Action Transparency (ICAT) project, and the Partnership to Strengthen Transparency for CoInnovation (PaSTI) will be included in the project. The proposed systems will be designed to benefit from recent advances and tools for estimating GHG emissions or collect activity data from the different sectors. FAO and its partners have developed or are currently developing a suite of tools for standardizing emissions monitoring and reporting at Tier 1 and 2. Such tools, hereafter summarized, will feature prominently among those of the MRV and M&E ETF-enhanced packages. The Global Livestock Environment Assessment Model (GLEAM) establishes baselines and assesses the impacts of different mitigation and adaptation scenarios at local and national scale. Based on IPCC Tier 2 methodology and GIS based modeling of livestock distribution, GLEAM allows the assessment of all major GHG emissions from livestock and the impacts of all actions to reduce emissions from the sector. In the land use sector, the FAO free and open source software Collect Earth will be made available along with capacity building trainings to fill gaps in data collection for the land use and land use change mapping, which will greatly contribute to improving the GHG inventory. Collect Earth is a tool that enables data collection through Google Earth based on customizable samplings. With these users can analyze high and very high-resolution satellite imagery for a wide variety of purposes, including: multi-phase National Forest Inventories; Land Use, Land Use Change and Forestry (LULUCF) assessments; monitoring agricultural land and urban areas; validation of existing maps; collection of spatially explicit socio-economic data; quantifying deforestation, reforestation and desertification. FAO will coordinate together with other agencies and research centres for the successful methodologies and tools to be used for the targeted sectors.

93. **Sustainability:** With GEF support, the government of Uzbekistan will be able to articulate a clear plan of action with regard to national reporting of its BTR by utilizing the monitoring and reporting roadmap, coordination mechanisms and technical guidelines and capacity developed by the project. Stakeholders will be empowered to access, archive, analyze and monitor the necessary information and activities with regards to relevant sectors.

94. In addition, the capacities of technical and policy focal points in the participating state agencies will be improved. It will strengthen data needs and gaps for the elaboration of the national GHG inventory and resources received tracking amongst the involved stakeholders. Training materials, guides, templates and tools will enable capitalizing on knowledge and actions implemented during the project.

95. **Potential for scaling up:** The project includes opportunities to scale up measures implemented. The current project will support the skills and knowledge for the revision of the NDC 2025, preparation of BTR2 in 2026 and BTR3 in 2028. By working through institutional mechanisms in place for transparency of climate change actions, the project will facilitate the process of scaling out project-developed systems and processes. Several CBIT projects are planned to implement by FAO. Such way, there is a potential to make a synergy between the activities and methodologies.

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[1] The Paris Agreement.

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[2] [https://www.climatelinks.org/sites/default/files/asset/document/Uzbekistan\\_CRP\\_Final.pdf](https://www.climatelinks.org/sites/default/files/asset/document/Uzbekistan_CRP_Final.pdf)

[3] Uzbekistan Third National Communication

[https://unfccc.int/sites/default/files/resource/TNC%20of%20Uzbekistan%20under%20UNFCCC\\_english\\_n.pdf](https://unfccc.int/sites/default/files/resource/TNC%20of%20Uzbekistan%20under%20UNFCCC_english_n.pdf)

[4] United Nations Framework Convention on Climate Change (UNFCCC) in Uzbekistan

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[5] Uzbekistan Second National Communication <https://unfccc.int/resource/docs/natc/uzbnc2e.pdf>

[6] Uzbekistan Third National Communication

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[7] <https://unfccc.int/non-annex-I-NCs>

[8] [https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-uzbekistan-undp-adaptation-planning\\_0.pdf](https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-uzbekistan-undp-adaptation-planning_0.pdf)

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[12] Uzbekistan Third National Communication

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[41] <http://www.fao.org/capacity-development/en/>

## **1b. Project Map and Coordinates**

**Please provide geo-referenced information and map where the project interventions will take place.**



## 2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

**Indigenous Peoples and Local Communities**

**Civil Society Organizations** Yes

**Private Sector Entities** Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement



1. The project aims to enhance the institutional and technical capacity of experts and civil servants from different sectors to respond to the enhanced transparency requirements of the Paris Agreement. Technical assistance and capacity-building activities will be implemented with key national institutions. The proposed capacity building program will be implemented in close cooperation with relevant stakeholders at the national, provincial and district levels. Key executing entities will include (also the stakeholders mentioned in Table 8):

? Uzhydromet (government institution responsible for coordination of the state programs on climate change),

? womens? group,

? local farmer organizations,

? academia,

? Tashkent State Agrarian University,

? private sector,

? NGOs.

2. In addition to Uzhydromet being the lead executing agency, the Ministry of Energy, the State Committee on Statistics, the State Committee on Ecology and Environmental Protection , the Ministry of Agriculture will take an active role in project implementation. During the PPG phase, detail analysis will be done to provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

Table 8: Stakeholders and their Responsibilities of the proposed CBIT project in Uzbekistan.

Name of key stakeholders	Mandate (or activities)	Potential role in the project
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Name of key stakeholders	Mandate (or activities)	Potential role in the project
<p>1. Centre of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet).</p>	<p>UNFCCC Focal Point</p> <p>Coordination of activities on the implementation of the UNFCCC and the Paris Agreement in the country.</p> <p>Preparation of Biennial Update Reports and National Communications for the UNFCCC.</p> <p>Preparation and updating of NDCs.</p>	<p>? Project Executing Entity</p> <p>? Central hub for maintaining liaison with other ministries and agencies</p> <p>? Improving qualifications and gaining new knowledge in the field of preparing a GHG inventory, assessing mitigation measures, organizing the MRV system, assessing adaptation measures, revising the NDC document based on the principles of transparency</p>

Name of key stakeholders	Mandate (or activities)	Potential role in the project
<p>2. Other associated ministries important for the domestic MRV system and tracking the progress of NDC actions:</p> <p>2.1. State Committee of the Republic of Uzbekistan on Statistics</p> <p>2.2. State Committee on Ecology and Environmental Protection</p> <p>2.3. State Committee on Forestry</p> <p>2.4. Ministry of Agriculture</p> <p>2.5. Ministry of Water Resources</p> <p>2.6. Ministry of Housing and Communal Services.</p> <p>2.7. Ministry of Transportation</p> <p>2.8. Ministry of Economic Development and Poverty Reduction.</p> <p>2.9. Ministry of Finance.</p> <p>2.10. Fund for Reconstruction and Development of Uzbekistan.</p> <p>2.11. National Banks.</p>	<p>Responsible for providing data for the respective sector, identifying the targets, scenarios and activities to mainstream under the provisions of the Paris Agreement</p>	<p>? Institutional arrangement.</p> <p>? Data collection, archiving, and analysis</p> <p>? Focal persons and capacity building of relevant government officials.</p> <p>? Sectoral expertise.</p> <p>? Decision-making and national investment.</p>
<p>3. Local government</p> <p>Municipalities of Tashkent, Bukhara and Samarkand.</p>	<p>Leading, planning, implementing, monitoring and communicating low emission development</p>	<p>? Data collection and analysis.</p>

Name of key stakeholders	Mandate (or activities)	Potential role in the project
<p>4. Private sector with the partial state share</p> <p>4.1. Uzbekenergo JSC (Electrical and thermal energy; share of Ministry of Energy of the Republic of Uzbekistan)</p> <p>4.2. Uzbekneftegaz JSC (geological exploration, production, transportation, storage, processing and sale of oil and gas; share of Ministry of Energy of the Republic of Uzbekistan)</p> <p>4.3. JSC Uztransgaz (transportation, storage and sale of gas, gas condensate and oil; share of Ministry of Energy of the Republic of Uzbekistan)</p> <p>4.4. JSC Khududgazta'minot (gas company)</p> <p>4.5. JSC Uzkimyosanoat (chemical industry)</p> <p>4.6. Association Uzpromstroymaterialy (construction)</p> <p>4.7. Uzbekugol JSC (coal industry)</p> <p>4.8. JSC Uzbekistan Havoyullari (airline company)</p> <p>4.9. Uzbekiston Temir Yullari (airline company)</p>	<p>Responsible for their inputs in the development of particular economic sector</p>	<p>? Data provision</p> <p>? Development of targets</p>

Name of key stakeholders	Mandate (or activities)	Potential role in the project
<p>5. Local/ national and international NGOs related to Climate Change actions</p> <p>5.1 Agency for Technical Cooperation and Development (ACTED).</p> <p>5.2 Central Asia Regional Economic Cooperation Program (CAREC)</p> <p>.</p>	<p>Develop and implement programs that target the most vulnerable amongst populations that have suffered from climate change, natural disaster, or socio-economic hardship</p>	<p>? NGOs will be engaged in the implementation of the project, including the best practice analysis and validation and appraisal of the adaptation data management system.</p>
<p>6. Civil society organizations/Private organizations/ other major industries related to GHG emissions and Climate Change actions</p> <p>6.1 Local farmer organizations.</p> <p>6.2 Chamber of Commerce and Industry of Uzbekistan.</p>	<p>? the active work on support of subjects both small, and large business</p>	<p>? Data collection.</p> <p>? Capacity building.</p>
<p>7. National Research institutes and universities</p> <p>7.1 Tashkent State Agrarian University.</p> <p>7.2 Research Institute of Forestry (under the State Forestry Committee).</p> <p>7.3 Academy of Science of the Republic of Uzbekistan.</p> <p>7.4 Research Hydrometeorological Institute.</p> <p>7.5 State Research Institute of Soil Science and Agro-chemistry.</p>	<p>? Responsible for the research</p>	<p>? Activity data collection.</p> <p>? Emission factors development.</p> <p>? Data quality.</p> <p>? Training and curriculum development.</p>

On 22.01.2021 a stakeholder meeting was held via Zoom platform to[1]:

? To present the project design (project scope including concept, objectives, components and outputs)

? To include all relevant stakeholders into the process of project proposal preparation in order to obtain their feedback

? To engage effectively engagement for inclusive and meaningful consultation (in gender responsive manner)

? To forge stronger partnerships, particularly with the relevant ministries and the private sector

? To harness the knowledge and expertise of stakeholders

? To identify synergies and areas of collaboration

3. During this meeting the different stakeholders have expressed their needs that can be satisfied within the implementation of this project.

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[1] <https://uzreport.news/society/uzbekistan-perehodit-na-rasshirennuyu-strukturu-prozrachnosti-v-ramkah-parijskogo-soglashe>

<http://uzdaily.uz/ru/post/58659>

### 3. Gender Equality and Women's Empowerment

**Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).**

1. The project will conduct a gender analysis and develop gender responsive results-based frameworks in line with GEF's Gender Equality Action Plan (GEAP), which is key to ensuring that women's needs, voice, leadership and participation are considered in project design, implementation and evaluation. As a result, the project will, where possible, account for and apply a gender-sensitive approach to data and information collection and analysis, which will be reported in project findings and relevant publications. The project will ensure that

women's specific needs are met, that women enjoy equal access to project activities from the preparation to implementation and evaluation stages, and that all potential benefits are equitably enjoyed across project activities.

2. Since gender aspect is included in the first NDC in the adaptation part, the project will focus specially to include gender into the M&E tools for the climate change impact and adaptation component. Jointly with the Women's Committee of Uzbekistan and other relevant state ministries/agencies that are in charge of improving the legal and institutional framework to ensure women's participation in development, the project is aimed to enhance women's representation at all levels, and gender mainstreaming of policies and programmes of the country.

3. During the project implementation phase, with support of the government institutions and other key organizations that collaborate in addressing climate change in Uzbekistan, inputs will be collected that contribute to the specific strategies and actions to ensure balanced gender representation in the results of the project, as well as to highlight the special place of gender in the climate change adaptation actions.

4. Finally, women's participation in all project activities will be promoted and efforts will be made to achieve equal participation and representation of women and men in the management structures and decision-making processes related to climate change (committees, institutional working groups, structures for the governance of the MRV system, etc.). Participation indicators will be broken down by gender to monitor progress.

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?** Yes

**closing gender gaps in access to and control over natural resources;** Yes

**improving women's participation and decision-making; and/or** Yes

**generating socio-economic benefits or services for women.**

**Will the project's results framework or logical framework include gender-sensitive indicators?**

Yes

**4. Private sector engagement**

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

The project will engage the private players from the Table 8 through a consultative and inclusive process in different components of the project. It seeks to strengthen private sector engagement in climate change actions and enhance ambitious national actions on climate change in the country. In component 2 the private sector plays an important role, especially with the data generation and sharing process institutional arrangement. Industry and their associations are relevant stakeholders as they have to understand the data reporting systems and provide adequate information in a timely manner. The engagement framework will enhance communication, coordination and tracking of resources while promoting investments in climate change actions by private sector.

**5. Risks to Achieving Project Objectives**

**Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)**

<b>Risk</b>	<b>Type</b>	<b>Rating</b>	<b>Mitigation measures</b>
Lack of political support for the development of each output of this project	Political	Low (P= 1; I=4)	Promote sustained political support during the project. Develop mainstreaming and engagement spaces with the participation of high-level officials (Outputs of Component 1 will directly address this risk).
High personnel turnover	Institutional	Medium (P=3; I= 3)	Establish permanent capacities together with train-the-trainers? programs to ensure redundancy in capacities. Capacity building. Good knowledge management. Elaboration of guidelines and manual about the use of technical tools (All components are focused on this risk).



Lack of current capacities and willingness to carry out the project activities	Organizational	Medium (P= 1; I= 4)	Targeted capacity building approaches (Outcome 2.1 and 3.1 are focused on this risk)
Potential negative impacts on project implementation due to Covid 19 and similar other pandemic.	Social	Medium (P= 2; I= 3)	<p>The COVID-19 pandemic may affect meetings and consultations during project preparation. Alternatives to develop meetings and consultations will be identified. Only when they necessary, face-to-face meetings will be held following strictly national guidance and biosecurity measures to prevent transmission of the virus.</p> <p>The project will deal with these impacts by following the security protocol described in the Human Resources Guidelines for Offices during the Novel Coronavirus (COVID-19) pandemic by the FAO (online available at <a href="https://bit.ly/2Hoj2Qz">https://bit.ly/2Hoj2Qz</a>) taking into account the particular characteristics of inhabitants and environmental conditions in the target region.</p> <p>The project is planned to start implementation in 2022, when the COVID-19 is expected to be under control. Nevertheless, the evolution of the pandemic will be monitored and taken into account during project design to allow room for mitigation of risks during project implementation. For this project, most of the activities can potentially be developed virtually.</p>
Climate Change	Environmental	Low (P= 1; I=4)	This is a capacity development project that does not include significant field work. In this context, climate events such as heavy rains, drought, and other extreme event will have a low impact on project implementation. FAO and national institutions will follow established protocols and instructions from competent authorities in case climate hazards should arise during project design or implementation.
Lack of coordination among institutions	Organizational	Medium (P= 3; I= 3)	Strengthen the coordination mechanism (Outcome 1.1 is focused on this risk).

## 6. Coordination

**Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.**

1. The Food and Agriculture Organization (FAO) will act as the GEF Implementing Agency, and as such will be responsible for providing technical support and carrying out supervision missions during project implementation, as well as conducting the evaluation of the project results. The State Agency for Environmental Protection and Forestry (SAEPF), through Centre of Hydrometeorological Service (Uzhydromet) will be the coordinating and executing agency. Also a Project Coordination Unit will be installed within the Uzhydromet, which will be responsible for the day-to-day management and monitoring and evaluation of the Project.

2. In light of the complex mix of stakeholders and the project's intent to effect change across different sectors, a Project Steering Committee (PSC) will be established and led by Uzhydromet. The PSC will consist of representatives from key agencies and initiatives that share interests with the proposed project, including: Ministry of Agriculture, Ministry of Energy, Ministry of Transportation, Ministry of Water Resources, State Committee on Ecology and Environmental Protection, representatives of relevant public organizations, Civil Society organization and academia. A Technical Support and Scientific Committee (TSSC), integrated by local institutions, technical personnel from the sector institutions and the academic sector, will support the implementation of the project providing technical orientation about specific aspects related with the main components..

*Coordination with other relevant GEF-financed projects and other initiatives*

3. This project is designed to be complementary to other related projects currently under implementation in Uzbekistan, including those supported by the GEF. Given the number of on-going projects in the country, great care will be given to coordinating project activities in such a way that activities are mutually supportive and opportunities capitalized to realize synergies and cost-effectiveness.

4. The proposed capacity building program will complement ongoing activities to support the Government of Uzbekistan to enhance management and monitoring practices in the different sectors including:

Other Ongoing and Pipeline Initiatives	Areas of complementarity with the proposed CBIT Project
<p><b>Integrated Natural Resources Management in Drought-prone and Salt-affected Agricultural Production Landscapes in Central Asia and Turkey (CACILM2) (FAO), GEFID 9094[1]</b></p> <p>This regional program has the overall objective to scale up integrated natural resources management (INRM) in drought-prone and salt-affected agricultural production landscapes in the Central Asian countries and Turkey. This will be done through scaling up of sustainable management practices that minimize pressures and negative impacts on natural resources that reduce risks and vulnerability and, enhance capacity of rural communities to cope with or adapt to drought and salinity. In particular, adoption of integrated landscape management approaches and INRM practices should help stabilize and even reverse trends of soil salinization, reduce erosion, improve water capture and retention, increase the sequestration of carbon, and reduce loss of agrobiodiversity, thereby reducing the desertification trend in terms of extent and severity. The project objective is achieved during a five-year period through four project components. It is structured as a program with one multi-country component addressing shared priorities at multi-county level (Component 1), two components at national level ensuring national implementation in selected production landscapes/land use systems (Component 2 and Component 3).</p> <p>In Uzbekistan among the national activities relevant to CBIT proposal are the following: Strengthening of drought preparedness processes planning at national level; development of regional approaches for mapping drought vulnerability; Strengthening the inter-sectoral mechanism for cooperation on issues of the land use; establishment of and training for a web of hydro-meteorological stations throughout the country; Improvement / introduction of integrated methods for weather/drought forecasting (including application of remote sensing) and water flow management in river basins, including development of snow cover monitoring; Assessment of impacts and risks of drought frequency on crop yields; Introduction of drought-resistant seeds, water saving technologies, agro-forestry, and improved pasture management in select landscapes. This project has a strong gender focus.</p>	<p>Component 2, 3,4</p>

<p><b>GCF Readiness Project[2]</b></p> <p>The GCF Readiness Programme, delivered in partnership with UN Environment and UNDP, will implement the four project components through cooperation and collaboration by all relevant government agencies, Local Financial Institutions (LFIs) and other stakeholders, and lay out some potential GCF Readiness measures identified during consultations at different levels:</p> <ol style="list-style-type: none"> <li>1. Increasing awareness of and understanding the GCF, its processes, priorities and coordination on climate finance;</li> <li>2. Building capacities to develop a pipeline of climate projects and attract investment;</li> <li>3. Investment frameworks for adaptation and mitigation detailing financial needs to address climate change, and sources of funding</li> <li>4. Training of Uzbekistan LFIs and private sector institutions, to effectively identify and evaluate proposals for climate finance.</li> </ol>	<p>Component 1,2, 3,4</p>
<p><b>Climate Adaptation and Mitigation Program for the Aral Sea Basin[3]</b> (CAMP4ASB), World Bank, Green Climate Fund, FP 014</p> <p>This World Bank Group program addresses both adaptation and mitigation support in the Aral Sea Basin. The program builds regional cooperation to the challenges of climate change. GCF investments will contribute to CAMP4ASB by addressing adaptation, initially in Tajikistan and Uzbekistan.</p> <p>GCF's engagement will allow support for the adoption of climate-smart rural production and landscape management investments through a regional climate investment facility. This will target the poorest and most climate-vulnerable rural communities, benefiting farmers and village in particular. The facility will strengthen climate resilience and food security. Agricultural, land and water management practices will be implemented based on local agro-ecological conditions in order to strengthen climate change resilience. Investments via the facility will be demand-driven, but will include crop diversification, water resource management, rehabilitation of degraded land, conservation agriculture, livestock production improvements, agro-products processing, energy efficiency improvements and expansion of renewable energy sources.</p>	<p>Component 2, 3, 4</p>

<p><b>Sustainable Management of Forests in Mountain and Valley Areas[4]</b></p> <p>GEF, FAO, State Forest Committee</p> <p>This project will contribute to the reversal of the current situation of degradation, and help switch forestry in Uzbekistan onto a path of increased forest cover, increased social and economic benefits from forests, increased carbon sequestration and an improved quality of existing forest. The barriers to sustainable forest management will be removed by implementation of four components:</p> <p>Component 1: Information management systems for sustainable forest management.</p> <p>Component 2: Multifunctional forest management leading to carbon sequestration, improvement in forest and tree resources, and other benefits.</p> <p>Component 3: Upscaling of sustainable forest management - with carbon sequestration ? by strengthening of the enabling environment.</p> <p>Component 4: Monitoring, evaluation and knowledge sharing.</p>	<p>Component 3, 4</p>
<p><b>Market Transformation for Sustainable Rural Housing Project[5]</b></p> <p>GEF, UNDP, State Committee on Architecture and Construction of the Republic of Uzbekistan (Gosarchitectstroy).</p> <p>The project is targeted to provide Uzbekistan's rural population with improved, affordable and environmentally-friendly living-conditions. Due to the project activities rural population will be benefited from sustainable management of natural resources and resilience to disasters and climate change. The project seeks to transform the rapidly growing rural housing sector in Uzbekistan towards a more sustainable and low-carbon development pathway by designing, piloting and scaling-up a green mortgage market mechanism, which will boost the demand for low-carbon housing among the Uzbek rural population. The use of GEF funds for the green mortgage mechanism will leverage substantial government and private investments in the housing sector and develop an innovative product that can be replicated broadly in Uzbekistan by the Government and other sources of climate financing.</p>	<p>Component 3, 4</p>

**Seventh Umbrella Programme for Preparation of National Communications and Biennial Update Reports to the UNFCCC[6]**

Component 2, 3, 4

GEF, UNEP, Uzhydromet

The project aimed to support 18 developing countries to prepare and submit NCs and BURs. The project will also ensure that national teams make use of established reporting systems, as well as expertise developed at country level. The project will also ensure that national teams make use of established reporting systems, as well as expertise developed at country level. As an outcome of the project, Uzbekistan's capacity on information base and institutional capacity of the national institutions involved in the development of NCs and BURs was strengthened, climate change priorities into development strategies and relevant sector programs were integrated. This project was closed in 2019.

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[1] <https://www.thegef.org/project/integrated-natural-resources-management-drought-prone-and-salt-affected-agricultural>

[2] <http://gcf.climatechange.uz/en/about.html>

[3] Climate adaptation and mitigation program for the Aral Sea-basin (Camp4asb)

[4] <https://www.thegef.org/project/sustainable-management-forests-mountain-and-valley-areas>

[5] <https://www.thegef.org/project/market-transformation-sustainable-rural-housing-project>

[6] [http://addis.unep.org/projectdatabases/01395/project\\_general\\_info](http://addis.unep.org/projectdatabases/01395/project_general_info)

## 7. Consistency with National Priorities

**Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions?**

Yes

**If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc**

1. The proposed CBIT project is designed to fulfill and respond to the ETF under the Paris Agreement. The project is in line with the national priorities, policies and strategies mentioned in section 2.6. Hence, it will contribute to strengthen capacities to assess, monitor and report mitigation

and adaptation actions that will facilitate the implementation of Uzbekistan's NDC and respond to the enhanced transparency requirements under the Paris Agreement.

2. The proposed capacity building program is drawn directly from the priorities outlined in Uzbekistan's NDC, which is based upon existing national laws, regulations, and policies on issues related to climate change and the different sectors including:

? The strategy of Action for the Five Priority Development Areas of Uzbekistan in 2017-2021 (PD 4849 of 14.02.2017)

? The water development concept for 2020 - 2030 (Presidential Decree (PD) 6024 dated 07/10/2020)

? The Strategy for the Transition of the Republic of Uzbekistan to the Green Economy for the Period 2019-2030 (PD PP-4477 of 4.10. 2019)

? The Concept for environmental protection till 2030 (PD 5863 of 10/30/2019)

? The strategy of development of agricultural industry of the Republic of Uzbekistan (PD 5853 of 23.10.2019)

? The Concept of forestry development until 2030 (Presidential Order 4850 dated 6.10.2020)

? Strategy for the Development of the Transport System of the Republic of Uzbekistan until 2035

? Strategy according to the treatment of municipal solid waste in the Republic of Uzbekistan for 2019-2028 (PP-4291 of 17.04.2019)

3. As a result, the proposed capacity building program is consistent with the national priorities of Uzbekistan with respect to efforts to tackle the drivers and impacts of climate change.

Table 10 shows the short information about the key reports under the provision of Paris Agreement in Uzbekistan.

Report's name	Status	Short description

NDC	<p>INDC submitted in 2017</p> <p>Second NDC will be submitted at the end of the 2021.</p>	<p>The INDC sets mitigation objective of <i>reducing specific emissions of GHG per unit of GDP by 10% by 2030 compared to 2010 level</i>. The adaptation objective of INDC is <i>to continue its efforts for adaptation capacity building to reduce risk of climate change adverse impact on various sectors of economy, social sector and Priaralie (Aral Sea coastal zone)</i>. A brief overview of the INDC of Uzbekistan is presented in Table 2.</p>
NAP	<p>The country is in the process of developing sector driven National Adaptation Plan (NAP) with the financing from Green Climate Fund (GCF)[1].</p>	<p>Project outcomes under the GCF funded project implemented by UNDP:</p> <p>Outcome 1: The coordination mechanism for multi-sectoral adaptation planning and implementation at different levels is strengthened This outcome seeks to identify barriers to integration of climate change adaptation into development planning and budgeting, and subsequently build capacity of key stakeholders to effectively plan for and monitor adaptation in Uzbekistan.</p> <p>Outcome 2: The evidence base for adaptation planning is strengthened and adaptation is prioritized into national and sectoral planning and budgeting. This outcomes seeks to consolidate existing climate information, and put in place a system for science-backed, economic analysis of adaptation options, to enable informed decision making in climate change adaptation in the country. Outcome 3: An adaptation financing and investment strategy for Uzbekistan is developed. This outcome seeks to identify options to sustainably finance the NAP process in Uzbekistan, and engage the private sector in supporting adaptation.[2]</p>
NAPA	<p>The programme is not implemented</p>	
TNA	<p>2001</p>	<p>The current revision is jointly done by Hydromet with Climate Technology centre and network[3]. TNA was prepared in 2001 in the following areas: ? Identifying priority technological requirements of economic sectors of Uzbekistan in reducing GHG emission and mitigating the negative impact of climate change; studying possible acquisition and use of technologies; assessing and developing specific technological projects. ? Undertaking additional studies in vulnerability assessment and developing climate change adaptation interventions. ? Strengthening the regional monitoring system and capacity building for participation in the Global Climate Monitoring System (GCMS)[4].</p>



NC	NC1 in 1999, NC2 in 2008, NC 3 in 2017, NC4 in 2022	The INC was prepared based on IPCC 1996 national GHG inventory guideline. The sectors considered were: Energy, Industrial Processes, Agriculture, Changes in Land Use and Forestry, and Wastes. The base years selected were 1990 and 1994. Quantitative assessments were performed taking the national statistics for different sectors collected by the state and various departments, and using IPCC emission factors[5]. The SNC estimated the GHG emissions was based on Revised 1996 IPCC Guidelines for Greenhouse Gas Inventories. The emission quantification period was 1990-2005. National emission factors were used to a considerable degree to decrease uncertainty. Analysis of key sources was done in accordance with the Good Practice and Uncertainty Management in National Greenhouse Gas Inventories IPCC, 2003[6]. NC4 is prepared under the support of UNDP.
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[1] [https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-uzbekistan-undp-adaptation-planning\\_0.pdf](https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-uzbekistan-undp-adaptation-planning_0.pdf)

[2] [https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-uzbekistan-undp-adaptation-planning\\_0.pdf](https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-uzbekistan-undp-adaptation-planning_0.pdf)

[3] <https://www.ctc-n.org/technical-assistance/requests/technology-needs-assessmenttna-and-technology-action-planstaps-and>

[4] [https://unfccc.int/ttclear/misc\\_/StaticFiles/gnwoerk\\_static/TNR\\_CRE/e9067c6e3b97459989b2196f12155ad5/97a6de817e444bdbbd915f17ec29008f.pdf](https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/97a6de817e444bdbbd915f17ec29008f.pdf)

[5] Uzbekistan Initial National Communication. <https://unfccc.int/sites/default/files/resource/Uzbekistan%20INC.pdf>

[6] Uzbekistan Second National Communication <https://unfccc.int/resource/docs/natc/uzbnc2e.pdf>

## 8. Knowledge Management

**Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.**

1. Knowledge management is an integral part of the different components defined in this CBIT proposal. It will stimulate the generation, dissemination and application of information and knowledge useful to respond to the enhanced transparency requirements under the Paris Agreement. This CBIT proposal would also like to emphasize in-country knowledge production and sharing to support development, promote ownership and empowerment. The regional experience of FAO from another

projects and programs will contribute to enhancement of the processes, methodologies, data and analysis necessary for the country to have better information to design and adjust policies linked to climate change, within the enhanced transparency framework, as well as the fulfil international commitments and achieve national development targets.

2. The proposal will also ensure experience and knowledge developed will be shared with relevant global (e.g. CBIT-AFOLU global project, CBIT Global Coordination Platform, NDC partnership, etc.) and regional transparency-related initiatives, platforms and/or networks. In particular, the definition and adoption of a roadmap to integrate transparency-related knowledge into national policy will define how national CBIT information shall be shared and updated. Likewise, the project will use knowledge from the FAO's tools like "Preparing a greenhouse gas inventory under the Enhanced Transparency Framework", "The national greenhouse gas inventory for land use", "The national greenhouse gas inventory for agriculture".[1] Last, but not least, in March 2021, FAO conducted a survey on the use of the Tier 2 methodology (as provided by the 2006 IPCC Guidelines, Volume 4, Chapter 10) for estimating methane emissions from enteric fermentation. Survey results will feed into an e-learning course to help countries boost their capacity on estimating enteric methane.

3. An online system or platform for data management, storage and sharing data will be developed. The project will disseminate its findings, key products and lessons learned in this system or platform, as well as other documentation and information relevant to the country related to the MRV system and the GHG inventories for the key sectors. In addition, data and products will be shared through the CBIT Global Coordination Platform, Central Asian Climate Information Platform[2], Central Asia and South Caucasus Regional Platform for Disaster Risk Reduction[3] (climate change adaptation plays a predominant role for Central Asia).

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[1] <http://www.fao.org/climate-change/our-work/what-we-do/transparency/en/>

[2] <https://centralasiacimateportal.org/>

[3] <https://www.preventionweb.net/events/view/49434?id=49434>

## **9. Environmental and Social Safeguard (ESS) Risks**

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

**Overall Project/Program Risk Classification \***

**CEO  
Endorsement/Approval**

PIF I MTR TE

**Low**

**Measures to address identified risks and impacts**

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

<b>Risk</b>	<b>Type</b>	<b>Rating</b>	<b>Mitigation measures</b>
Lack of political support for the development of each output of this project	Political	Low (P= 1; I=4)	Promote sustained political support during the project. Develop mainstreaming and engagement spaces with the participation of high-level officials (Outputs of Component 1 will directly address this risk).
High personnel turnover	Institutional	Medium (P=3; I= 3)	Establish permanent capacities together with train-the-trainers? programs to ensure redundancy in capacities. Capacity building. Good knowledge management. Elaboration of guidelines and manual about the use of technical tools (All components are focused on this risk).
Lack of current capacities and willingness to carry out the project activities	Organizational	Medium (P= 1; I= 4)	Targeted capacity building approaches (Outcome 2.1 and 3.1 are focused on this risk)

Potential negative impacts on project implementation due to Covid 19 and similar other pandemic.	Social	Medium (P= 2; I= 3)	<p>The COVID-19 pandemic may affect meetings and consultations during project preparation. Alternatives to develop meetings and consultations will be identified. Only when they necessary, face-to-face meetings will be held following strictly national guidance and biosecurity measures to prevent transmission of the virus.</p> <p>The project will deal with these impacts by following the security protocol described in the Human Resources Guidelines for Offices during the Novel Coronavirus (COVID-19) pandemic by the FAO (online available at <a href="https://bit.ly/2Hoj2Qz">https://bit.ly/2Hoj2Qz</a>) taking into account the particular characteristics of inhabitants and environmental conditions in the target region.</p> <p>The project is planned to start implementation in 2022, when the COVID-19 is expected to be under control. Nevertheless, the evolution of the pandemic will be monitored and taken into account during project design to allow room for mitigation of risks during project implementation. For this project, most of the activities can potentially be developed virtually.</p>
Climate Change	Environmental	Low (P= 1; I=4)	This is a capacity development project that does not include significant field work. In this context, climate events such as heavy rains, drought, and other extreme event will have a low impact on project implementation. FAO and national institutions will follow established protocols and instructions from competent authorities in case climate hazards should arise during project design or implementation.
Lack of coordination among institutions	Organizational	Medium (P= 3; I= 3)	Strengthen the coordination mechanism (Outcome 1.1 is focused on this risk).

**Supporting Documents**

Upload available ESS supporting documents.

Title

Submitted

**Title**

**Submitted**

**FAO ES Screening Checklist CBIT UZB**

**Uzbekistan CBIT - Climate Risk Screening**

**Project Risk Certification**

**Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).**

<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Jakhongir Talipov	OFP Chief Specialist	State Committee for Ecology and Environmental Protection	5/19/2021

**ANNEX A: Project Map and Geographic Coordinates**

Please provide geo-referenced information and map where the project intervention takes place



The proposed CBIT project will be implemented on the whole territory of Uzbekistan, whose (bounding box) coordinates are: 55.9966, 37.1843, 73.1323, 45.6052 degrees. A geographical map is provided[1]:

[1] Source: [https://mapcruzin.com/free-maps-uzbekistan/uzbekistan\\_sm\\_2008.gif](https://mapcruzin.com/free-maps-uzbekistan/uzbekistan_sm_2008.gif)