

# Technical guidance and support to conduct a technology needs assessment and a technology action plan for Paraguay

## Output 1:

Deliverable 1.3.1a (ii): Monitoring & Evaluation Plan

Deliverable 1.3.1a (iii): CTCN Impact Description

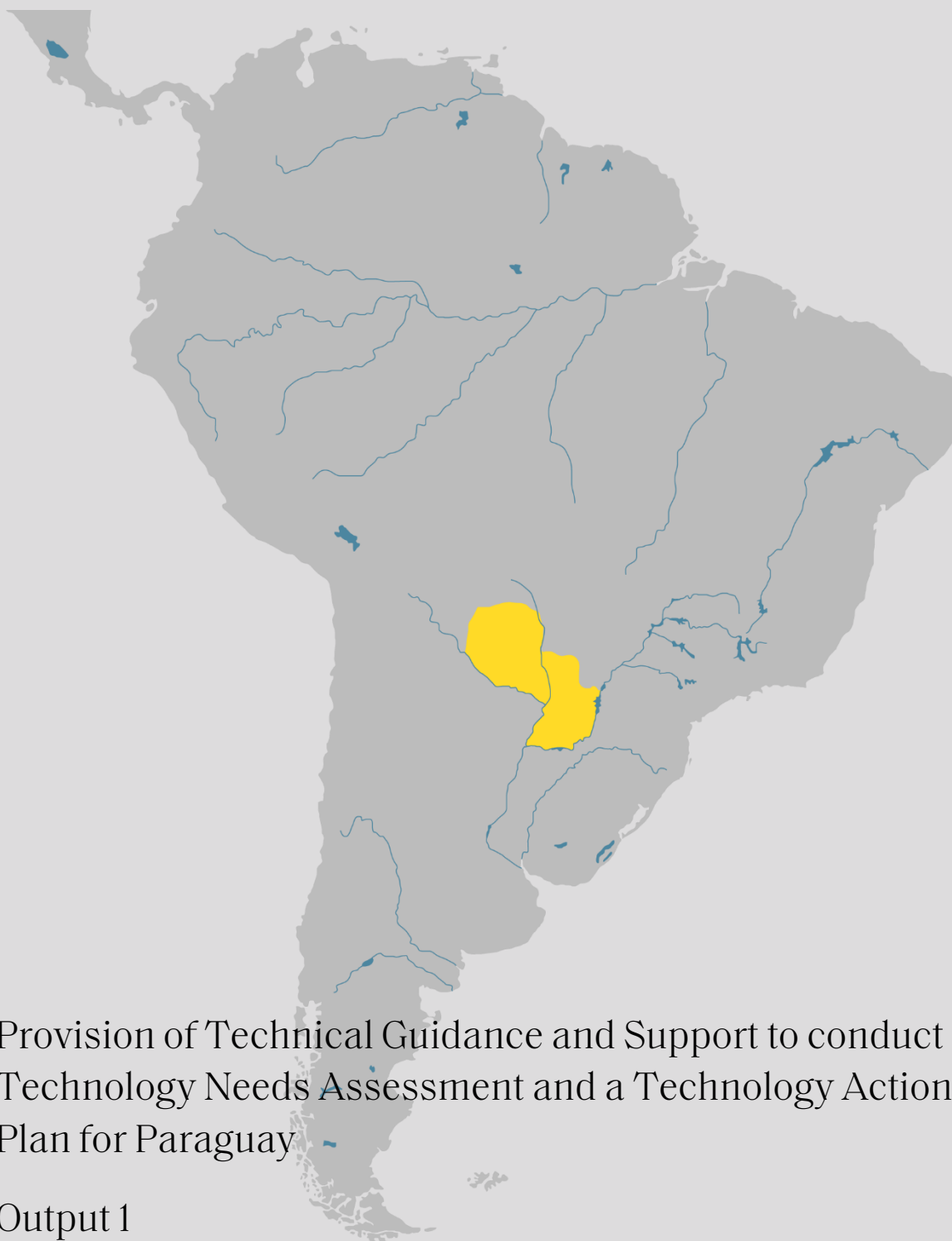
## Submitted to:

United Nations Environment Programme (UNEP) · Climate  
Technology Center Network (CTCN)

Country · Paraguay



sustainable development  
on our finite planet



## Provision of Technical Guidance and Support to conduct a Technology Needs Assessment and a Technology Action Plan for Paraguay

### Output 1

Deliverables 1.3.1a: Monitoring & Evaluation Plan and CTCN Impact Description

Country: Paraguay



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# 1. Monitoring & Evaluation Plan

## a. Objective of the M&E Plan & Impact Statement

- The purpose of the technical assistance is to offer technical guidance and support to Paraguay to conduct a sectoral technology needs assessment (TNA) and develop a technology action plan (TAP).
- The sectoral TNA will complement the national processes and enable technology transfer to aid in the realization of the country's climate change and development strategies as contained in their National Development Plan (PND) 2030, NDC, National Climate Change Policy (NCCP), National Climate Change Strategy, NAP and National Mitigation Plan. The direct beneficiaries of the Readiness' project are the government of Paraguay and other non-governmental institutions (e.g. private sector).
- The M&E Plan has the objective, based on the Technical Assistance Response Plan, the contracting firm OIKO and the Government of Paraguay, to monitor the implementation process and complete the Closure Report at the end of the assistance.
- The M&E identifies relevant quantitative and qualitative indicators as specified in the Closure Report, presenting a sub-set of indicators to monitor and assess must be chosen among these. Additionally, the M&E identifies other specific, measurable, achievable, relevant, and time-bound indicators suitable to monitor Activities, Outputs and anticipated Outcomes from the technical assistance and add to the M&E Plan and Impact Statement. The aggregated data on selected indicators as well as an updated version of the Impact Statement will be presented in the Closure Report at the end of the assistance.

## b. Basic Information

Table 1. Basic Information	
<b>Title of response plan</b>	Technical guidance and support to conduct a technology needs assessment and a technology action plan for Paraguay
<b>Technical assistance reference number</b>	2020000032
<b>Country/ countries</b>	Paraguay
<b>NDE focal point and organization</b>	Ministry of the Environment and Sustainable Development (MADES) His Excellency Mr. César Oviedo Verdun, Minister
<b>Sector(s) addressed</b>	Cross-sectoral. <i>Four (4) sectors to be prioritized during the initial phases of the Technical Assistance<sup>1</sup>.</i>
<b>Technologies supported</b>	Technologies will be identified and prioritized during the initial phases of the Technical Assistance.
<b>Implementation period and total duration</b>	18 months (October 2021 - March 2023)
<b>Total budget for implementation</b>	USD 201,250
<b>Designer of the response plan</b>	The Climate Technology Center and Network (CTCN) – Ministerio del Ambiente y Desarrollo Sostenible (MADES)
<b>Implementer of response plan</b>	United Nations Environment Programme (UNEP) on behalf of The Climate Technology Center and Network (CTCN)

For each of the products and activities to be presented, according to the Terms of Reference, a series of indicators have been carefully selected to measure our results. These are shown in Table 8.

<sup>1</sup> These four (4) sectors will be chosen based on the sectors identified in Paraguay's NDC, NAP and NMP (in adaptation: (i) agricultural production and food security, (ii) water resources -risk management and reduction, (iii) health and epidemiology, (iv) infrastructure, transportation and energy and (v) environment, forests and fragile ecosystems; in mitigation: energy, land use, land-use change and forestry (LULUCF) and waste).

### c. Monitoring & Evaluation Table

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments (Assumptions)
<b>Output 1.3.1: Effective coordination mechanism between NDA and NDE for the UNFCCC Technology Mechanism and other climate finance focal points</b>				
<b>Activity 1.3.1a: Develop CTCN planning and communication documents</b>	<ul style="list-style-type: none"> <li>The Total number of deliverables produced during the assistance will be 29. For Activity 1.3.1a:</li> <li>The Number of tools and technical documents strengthened revised or developed through the project</li> <li>Number of other information materials strengthened, revised or created (training and workshop reports, Power Points, exercise docs, etc.)</li> <li>Total number of events organized by proponents and implementing partners</li> <li>Number of communication and planning documents developed</li> </ul>	<ul style="list-style-type: none"> <li>1 Work Plan developed (1.3.1a (i))</li> <li>1 Monitoring &amp; Evaluation Plan (1.3.1a (ii)) and Impact Statement (1.3.1a (iii)) developed at the end of Activity 1.3.1a.</li> <li>1 Closure and Data Collection Report completed at the end of the TA (1.3.1a (iv))</li> <li>29 deliverables produced during the technical assistance (TA)</li> <li>25 communication materials produced during the TA</li> <li>5 tools and technical documents strengthened, revised or developed at the end of Activity 1.3.1.</li> <li>5 other information materials strengthened, revised or created by the end of the TA</li> <li>12 events organized by proponents and implementing partners by the end of the end of the TA</li> </ul>	<ul style="list-style-type: none"> <li>All reports produced at the end of Activity and Outcome will be supervised and validated.</li> <li>All communication &amp; planning documents produced at the end of Activity 1.3.1a &amp; at the end of the TA.</li> <li>List including the tools and technical documents strengthened, revised or developed at the end of Activity 1.3.1a &amp; at the end of the TA.</li> <li>Reports and documentation on all of the events organized by the end of the TA</li> <li>Work Plan</li> <li>Monitoring &amp; Evaluation Plan and Impact Statement</li> <li>Closure and Data Collection Report</li> </ul>	<ul style="list-style-type: none"> <li>First assumption is that the NDC process is ongoing and there is full ownership of the government to conduct the exercise.</li> </ul>
<b>Activity 1.3.1b: Conduct stakeholder's analysis</b>	<ul style="list-style-type: none"> <li>The Total number of deliverables produced during Activity 1.3.1b</li> </ul>	<ul style="list-style-type: none"> <li>1 Stakeholder Mapping Report, where roles and responsibilities are specified (1.3.1b (i))</li> <li>1 Report of the 2-day stakeholders' workshop (1.3.1b (ii))</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholder Mapping Report</li> <li>Report of the 2-day stakeholders' workshop, including a list of participants gender-</li> </ul>	

	<ul style="list-style-type: none"> <li>• Number and diversity of key Stakeholders Identified participating in the process.</li> <li>• Quality of the relationships / communications between Stakeholders</li> <li>• Number of meetings and interviews conducted with the relevant stakeholders</li> <li>• Number and list of key Ministries and relevant organizations identified and engaged in meetings</li> <li>• Elaboration of a Stakeholder Mapping Report</li> </ul>	<ul style="list-style-type: none"> <li>• 10 stakeholders identified per sector and their contributions and responsibilities described</li> <li>• 20 meetings conducted with stakeholders in the 4 prioritized sectors and clear map of actions for each</li> <li>• 8 key ministries and organizations identified in each of the sectors</li> <li>• At least 3 key ministries and organizations engaged in each of the sectors</li> </ul>	<p>disaggregated data and other relevant documentation</p> <ul style="list-style-type: none"> <li>• Minutes from each one of the meetings conducted</li> <li>• List of Key stakeholders Identified in Ministries and Organizations / Description of their roles and responsibilities</li> <li>• List of engaged Ministries and Organizations and letter of commitment (alliance) of Ministry and action Plan to engage private sector and NGOs.</li> </ul>	
<b>Activity 1.3.1c:</b> <b>Support the establishment of a TNA Committee</b>	<ul style="list-style-type: none"> <li>• The Total number of deliverables produced during Activity 1.3.1c</li> <li>• Number of participants (number of men / number of women) in the workshops organized for the establishment of a TNA Committee</li> <li>• Number of workshops organized for the establishment of a TNA Committee</li> <li>• Number of TNA Committee meetings conducted.</li> <li>• Number of Committee Meeting Minutes</li> </ul>	<ul style="list-style-type: none"> <li>• 2 workshops organized for the establishment of a TNA Committee <ul style="list-style-type: none"> <li>◦ 1 capacity-building training organized on the overall process and different steps for conducting the TNA</li> <li>◦ 1 capacity-building training organized on the participatory planning and prioritization tools TNA</li> </ul> </li> <li>• 1 Official government circular establishing the national TNA committee (1.3.1c (i))</li> <li>• 1 TNA Committee Constitution document informing on the work of the TNA Committee, released and endorsed by the government (terms of reference) (1.3.1c (ii))</li> <li>• 1 Report on the 2 workshops organized (1.3.1c (iii)).</li> </ul>	<ul style="list-style-type: none"> <li>• 1.3.1c (i): Official government circular establishing the national TNA committee</li> <li>• 1.3.1c (ii): TNA Committee Constitution document informing on the work of the TNA Committee (terms of reference)</li> <li>• 1.3.1c (iii): Report on the 2 workshops organized</li> <li>• 1.3.1c (iv): TNA Committee Work plan</li> <li>• 1.3.1c (v): Report of quarterly TNA committee meetings</li> <li>• List of members of the TNA Committee Meetings</li> <li>• Head count- List of Participants in each of the Committee Meetings (male / female) (headcount)</li> </ul>	

		<ul style="list-style-type: none"> <li>1 TNA Committee Work Plan (1.3.1c (iv))</li> <li>1 Report of quarterly TNA committee meetings (1.3.1c (v))</li> <li>10 participants (5 men / 5 women) in the workshops organized for the establishment of a TNA Committee</li> <li>4 committee Meetings Conducted</li> <li>4 Committee Meetings Minutes</li> </ul>	<ul style="list-style-type: none"> <li>Full list of participants of the 2 workshops organized with gender-disaggregated data</li> <li>Meetings Minutes of each of the Committee Meetings</li> </ul>	
<b>Output 1.3.2: Private sector (with a focus on SME) capacity is strengthened and the creation of an enabling environment for their participation in climate technology adoption through innovative new business identification training programmes is supported</b>				
Activity 1.3.2a: Enhance SME capacity and enable environment through innovative new business identification training programmes	<ul style="list-style-type: none"> <li>The Total number of deliverables produced during Activity 1.3.2a</li> <li>Number of workshops conducted for public and private stakeholders</li> <li>Number of participants (number of men / number of women) in the workshops organized for the establishment of a TNA Committee</li> <li>Number of private sector stakeholders targeted</li> <li>Number of innovative business and training programmes identified after the workshop</li> </ul>	<ul style="list-style-type: none"> <li>1 Workshop report, including a full list of participants with gender-disaggregated data, pre- and post-evaluation assessments, including the innovative business and training programmes identified (Deliverable 1.3.2a (i))</li> <li>1 workshop organized for up to 50 public and private stakeholders</li> <li>40 participants (50% men / 50% of women) in the workshops organized for the establishment of a TNA Committee</li> <li>10 private sector stakeholders targeted for the two-day workshop</li> <li>20 innovative business and training programmes identified after the workshop</li> </ul>	<ul style="list-style-type: none"> <li>1.3.2a (i): Workshop report, including a full list of participants with gender-disaggregated data, pre- and post- evaluation assessments.</li> <li>List of the two-day workshop participants</li> <li>List of identified innovative business and training programmes</li> </ul>	
<b>Output 2.2.1: Appropriate climate technology solutions are identified and prioritized and relevant action for increased access to finance is identified</b>				
Activity 2.2.1a Pre-selection of sub-sectors for the fulfilment of Paraguay's TNA	<ul style="list-style-type: none"> <li>The Total number of deliverables produced during Activity 2.2.1a</li> <li>Number of meetings / events conducted for sector and sub-sector prioritization</li> </ul>	<ul style="list-style-type: none"> <li>1 Report on TNA-TAP alignment with national plans/grants (2.2.1a (i))</li> <li>1 Report on analysis of sectoral priorities expressed in national documents (2.2.1a (ii))</li> <li>1 Report describing the methodology utilized for sector and</li> </ul>	<ul style="list-style-type: none"> <li>Report on TNA-TAP alignment with national plans/grants</li> <li>Report on analysis of sectoral priorities expressed in national documents</li> <li>Report describing the methodology utilized for sector</li> </ul>	



	<ul style="list-style-type: none"> <li>• Number of participants in meetings (number of men / number of women)</li> <li>• List of pre-identified sub-sectors for the fulfilment of TNA</li> <li>• Number of meetings conducted for the identification of sub-sectors</li> <li>• Number of identified for each sector with its respective sub-sectors</li> <li>• Number of sectoral priorities identified per sub-sector</li> </ul>	<p>subsector selection and prioritization (2.2.1a (iii))</p> <ul style="list-style-type: none"> <li>• 1 Stakeholders consultation workshop report, including a 1 list of participants with gender-disaggregated data. (2.2.1a (iv))</li> <li>• 5 meetings conducted for the identification of sub-sectors</li> <li>• 4 sectors identified for each sector with its respective sub-sectors</li> <li>• 4 sectoral priorities identified per sub-sector</li> </ul>	<p>and subsector selection and prioritization</p> <ul style="list-style-type: none"> <li>• 1 Stakeholders consultation workshop report, including a 1 list of participants with gender-disaggregated data. (2.2.1a (iv))</li> <li>• Meeting minutes</li> <li>• List of participants in each of the meetings (headcount)</li> <li>• List of pre-identified sub-sectors for the fulfilment of TNA</li> </ul>	
<b>Activity 2.2.1b Assess, prioritize and validate key technologies for the fulfilment of Paraguay's TNA</b>	<ul style="list-style-type: none"> <li>• The Total number of deliverables produced during Activity 2.2.1b</li> <li>• Total number of technology factsheets developed in total</li> <li>• Total number of technology factsheets developed per sector</li> <li>• Number of participants (number of men / number of women) in the 4 sectorial workshops organized</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 40 technology factsheets developed in total; 10 per sector (2.2.1b (i))</li> <li>• 10 technology factsheets developed per sector (2.2.1b (i))</li> <li>• 20 participants per workshop (10 male / 10 female)</li> <li>• 4 Workshop reports developed, one for each sector (2.2.1b (iii))</li> <li>• 2 final reports submitted (2.2.1b (iv)): <ul style="list-style-type: none"> <li>◦ 1 Mitigation TNA report</li> <li>◦ 1 adaptation TNA report</li> </ul> </li> <li>• 1 TNA database created (2.2.1b (v)).</li> </ul>	<ul style="list-style-type: none"> <li>• Factsheets on each of the sectors</li> <li>• Mitigation TNA report</li> <li>• Adaptation TNA report</li> <li>• TNA Database</li> <li>• Sectorial Workshop reports</li> </ul>	
<b>Activity 2.2.1c. Development of Technology Action Plan per sector and/or sub-sector</b>	<ul style="list-style-type: none"> <li>• The Total number of deliverables produced during Activity 2.2.1c</li> <li>• Number of project ideas developed</li> </ul>	<ul style="list-style-type: none"> <li>• 1 Draft Report and executive summary of 4 Technology Action Plans for each of the priority technologies in compliance with the TNA (2.2.1c (i))</li> </ul>	<ul style="list-style-type: none"> <li>• Reports of each of the TAP for each of the priority technologies</li> <li>• Executive summaries of each of the TAP for each of the priority technologies</li> </ul>	

<b>Output 2.2.2: Effective stakeholders' engagement and information dissemination for enhanced country ownership and technology deployment</b>				
<b>Activity 2.2.2a.</b> Conduct a National Consultation workshop to ensure national ownership and technology deployment	<ul style="list-style-type: none"> <li>• The Total number of deliverables produced during Activity 2.2.2a</li> <li>• Anticipated number of collaborations facilitated or enabled as a result of technical assistance</li> <li>• Anticipated Number of technologies transferred or deployed as a result of CTCN support</li> <li>• Number of participants in climate technology RD&amp;D events</li> </ul>	<ul style="list-style-type: none"> <li>• 1 Workshop report (2-day workshop) including a full list of participants with gender-disaggregated data (2.2.2a (i))</li> <li>• 1 Validated report and executive summary of 4 Technology Action Plans for each of the priority technologies in compliance with the TNA 2.2.2a (ii)</li> <li>• 50% male participants in national consultation workshop</li> <li>• 50% female participants in national consultation workshop</li> <li>• 5 regional key financial players participating in the workshop</li> <li>• 10 governmental collaborations</li> <li>• 5 RD&amp;D collaborations</li> <li>• 10 private sector collaborations</li> </ul>	<ul style="list-style-type: none"> <li>• Workshop Report</li> <li>• Executive summaries of the Action Plans</li> <li>• List of participants in each of the workshop sessions (headcount)</li> <li>• Meetings minutes from workshop sessions</li> </ul>	
<b>Activity 2.2.2b:</b> Support the implementation of the Technology Action Plan with communications, guidance and training	<ul style="list-style-type: none"> <li>• The Total number of deliverables produced during Activity 2.2.1b</li> <li>• Total number of institutions trained</li> <li>• Number of trainings / workshops organized</li> <li>• Number of workshops reports produced</li> <li>• Number of participants in each one of the trainings (male participants / female participants)</li> <li>• Number of Governmental Institutions trained</li> <li>• Number of Private Institutions trained</li> </ul>	<ul style="list-style-type: none"> <li>• Policy briefs and market-use cases for the selected technologies (2.2.2b (i))</li> <li>• 1 Report on the dissemination strategy (2.2.2b (ii)).</li> <li>• Training materials for the sub-national workshops (2.2.2b (iii))</li> <li>• 4 sub-national Workshops reports, including a full list of participants and pre- and post- evaluation assessments (2.2.2b (iv))</li> <li>• 20 participants in each one of the 4 workshops</li> <li>• 4 training workshops organized</li> <li>• 5 Governmental Institutions trained</li> <li>• 5 Private Institutions trained</li> </ul>	<ul style="list-style-type: none"> <li>• Reports / Minutes of the organized trainings</li> <li>• List of governmental institutions trained</li> <li>• List of private institutions trained</li> <li>• List of nongovernmental institutions trained</li> <li>• Survey for monitoring the impact of the project</li> <li>• CTCN feedback form / survey</li> <li>• Policy briefs and market-use cases for the selected technologies</li> </ul>	

	<ul style="list-style-type: none"> <li>Number of Nongovernmental Institutions trained</li> <li>Participants' satisfaction ratio to the trainings</li> </ul>	<ul style="list-style-type: none"> <li>5 Nongovernmental Institutions trained</li> <li>50% of male participants express a satisfaction of 4+ on a 5-pt scale</li> <li>50% of female participant express a satisfaction</li> <li>60% of total participants express an increased knowledge, capacity and/or understanding</li> </ul>		
<b>Outcome 4.1: An increase in the number of quality project concept notes developed and submitted to the GCF</b>				
Activity 4.1.1a: Develop concept notes for priority sectors for submission to the GCF	<ul style="list-style-type: none"> <li>The Total number of deliverables produced during Activity 4.1.1a.</li> </ul>	<ul style="list-style-type: none"> <li>2 concept notes developed for climate technology deployment to be submitted to the GCF (4.1.1a)</li> </ul>	<ul style="list-style-type: none"> <li>Concept notes for climate technology deployment</li> </ul>	

Core indicator 3		Anticipated number of direct and indirect beneficiaries as a result of the TA		
	Quantitative value	Means of verification		
Total beneficiaries	Total number to be defined after the selection of sectors and sub-sectors (February 2022)	Institutional report / stakeholder mapping		
Number of adaptation beneficiaries	Total number to be defined after the selection of sectors and sub-sectors (February 2022)	Institutional report / stakeholder mapping		
Number of mitigation beneficiaries	Total number to be defined after the selection of sectors and sub-sectors (February 2022)	Institutional report / stakeholder mapping		
Number of adaptation-and mitigation beneficiaries	Total number to be defined after the selection of sectors and sub-sectors (February 2022)	Institutional report / stakeholder mapping		

Core indicator 4	Anticipated amount of funding/investment leveraged (USD) as a result of TA (disaggregated by public, private, national, and international sources, as well as between anticipated/confirmed funding)			
	Quantitative value confirmed in USD <sup>2</sup>	Quantitative value anticipated in USD <sup>3</sup>	Qualitative description List the institutions, timelines, and description or title of the investment	Methods Describe methods used for quantification of funds leveraged
Total funding	N/A	Total value to be defined after the selection of sectors and sub-sectors (February 2022)	To be determined after final selection of sectors and sub-sectors (February 2022)	Total value to be defined after the selection of sectors and sub-sectors (February 2022)
Anticipated amount of public funding mobilised from national/domestic sources	N/A	Total value to be defined after the selection of sectors and sub-sectors (February 2022)	To be determined after final selection of sectors and sub-sectors (February 2022)	Total value to be defined after the selection of sectors and sub-sectors (February 2022)
Anticipated amount of public funding mobilised from international/ regional sources	N/A	Total value to be defined after the selection of sectors and sub-sectors (February 2022)	To be determined after final selection of sectors and sub-sectors (February 2022)	Total value to be defined after the selection of sectors and sub-sectors (February 2022)
Anticipated amount of private funding mobilised from national/domestic sources	N/A	Total value to be defined after the selection of sectors and sub-sectors (February 2022)	To be determined after final selection of sectors and sub-sectors (February 2022)	Total value to be defined after the selection of sectors and sub-sectors (February 2022)
Anticipated amount of private funds mobilised from international/regional sources	N/A	Total value to be defined after the selection of sectors and sub-sectors (February 2022)	To be determined after final selection of sectors and sub-sectors (February 2022)	Total value to be defined after the selection of sectors and sub-sectors (February 2022)

<sup>2</sup> Total number in USD (numerals only, no rounding or abbreviations)

<sup>3</sup> Total number in USD (numerals only, no rounding or abbreviations)

## 2. List of Stakeholders

### Box 1. Preliminary list of main stakeholders in the Technical Assistance

- |   |  |
|---|--|
| ▲ National Environment Council (CONAM, Consejo Nacional del Ambiente)   | ▲ Directorate of Meteorology and Hydrology of the National Directorate of Civil Aviation (Dirección de Meteorología e Hidrología de la Dirección Nacional de Aeronáutica Civil, DINAC) |
| ▲ National System for the Environment (SISNAM, Sistema Nacional del Ambiente)   | ▲ CONADERNA  |
| ▲ Ministry of Environment and Sustainable Development (MADES) <ul style="list-style-type: none"> <li>○ National Climate Change Commission (CNCC)</li> </ul> | ▲ National Electricity Administration (Administración Nacional de Electricidad, ANDE)  |
| ▲ Technical Secretariat for the Planification of Economic and Social Development  | ▲ Itaipu Binacional  |
| ▲ Local Development Councils (local governments, representatives of the private sector and civil society) in municipalities                                 | ▲ Binational Entity Yacyreta (Entidad Binacional Yacyreta)   |
| ▲ Ministry of Foreign Affairs (Ministerio de Relaciones y Exteriores, MRE)  | ▲ National University of Asunción (Universidad Nacional de Asunción)   |
| ▲ Ministry of Industry and Commerce (Ministerio de Industria y comercio, MIC)   | ▲ Universidad Católica Nuestra Señora de la Asunción   |
| ▲ Ministry of Public Works (Ministerio de Obras Públicas, MOPC)   | ▲ Environmental Organisations Network (Red de Organizaciones Ambientales, ROAM)  |
| ▲ Ministry of Finance (Ministerio de Hacienda)  | ▲ Paraguayan Industrial Union (Unión Industrial Paraguaya, UIP)  |
| ▲ Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería, MAG)  | ▲ Rural Association of Paraguay (Asociación Rural del Paraguay, ARP)   |
| ▲ Ministry of Public Health and Social Welfare (Ministerio de Salud, MSPyBS)  | ▲ Ministry of Education and Sciences (Ministerio de Educación y Ciencias)  |
| ▲ DIGESA  | ▲ CONACYT  |
| ▲ Ministry of the Woman (Ministerio de la Mujer)  | ▲ Ministry of Urban Development and Housing (Ministerio de Urbanismo, Vivienda y Hábitat)  |
| ▲ Technical Secretariat of Social and Economic Development Planning (Secretaría técnica de planificación del desarrollo económico y social, STP)            | ▲ PETROPAR   |
| ▲ National Forestry Institute (Instituto Forestal Nacional, INFONIA)  | ▲ Ministry of Defence (Ministerio de Defensa)  |
| ▲ National Emergency Secretariat (Secretaría de Emergencia Nacional, SEN)   | ▲ Ministry of Childhood and Youth (Ministerio de la Niñez y Adolescencia)  |
| ▲ Paraguayan Institute for Indigenous Affairs (Instituto Paraguayo del Indígena)  | ▲ Federation for the self-determination of indigenous peoples (Federación por la Autodeterminación de los Pueblos Indígenas)   |
| ▲ Supreme Court of Justice (Corte Suprema de Justicia)  | ▲ Ministry of Social Development (Ministerio de Desarrollo Social)   |
| ▲ Board of Governors (Consejo de Gobernadores)  | ▲ POJOAJU  |

### 3. The CTCN Impact Description

Table 2. Impact Statement	
Challenge	<p>Paraguay is a landlocked developing country (LLDC) with a highly dependent economy on the primary sector, which makes it highly vulnerable to the effects of climate change, such as temperature increase, pattern change in rainfall, and intensity and frequency increase of extreme weather events.</p> <p>In the Nationally Determined Contributions (NDCs) Paraguay recognizes the obstacles to advance in the climate technologies adoption needed to strengthen mitigation and adaptation measures and building resilience. The country faces lack of specialized skills required in climate technologies, innovations, and knowledge. Other barriers include inadequate infrastructure services to ease acquisition of appropriate technologies, lack of market awareness, lack of research and development of green technologies, inadequate incentives and enabling environment for technology transfer.</p> <p>The technical assistance to Paraguay to enable the development of a Technology Needs Assessment (TNA) and action plan, will allow the country to implement its climate targets using the most appropriate technologies, and address the country needs in climate change adaptation and mitigation.</p>
CTCN assistance	<ul style="list-style-type: none"> <li>• To provide technical assistance (TA) to Paraguay to enable the development of a comprehensive Technology Needs Assessment (TNA) and a Technology action plan (TAP).</li> <li>• The TA will entail conducting categorization and prioritization of technologies that will comply with the Paraguay NDCs and other strategies.</li> <li>• The fundamental goal is to enable Paraguay to implement its climate targets using the most appropriate technologies.</li> <li>• In this context, the TNA report and TAP will provide the necessary guidance to evolve the prioritized technologies and address the country needs in climate change adaptation and mitigation.</li> </ul>
Anticipated impact	<ul style="list-style-type: none"> <li>• Measures implemented across the prioritized sectors that will drive climate resilient and low carbon growth in Paraguay</li> <li>• Institutional capacity and effective coordination mechanisms between NDA and NDE in place to coordinate climate action</li> </ul>
Anticipated co-benefits from the TA	<p>Potential co-benefits of climate change mitigation / Response plan and deliverables</p> <ul style="list-style-type: none"> <li>• Reducing air pollution from emissions of fossil fuels and the accompanying health (including premature deaths and morbidity) and environmental impacts</li> <li>• Increased resource efficiency</li> <li>• Increased resilience to climate change for the primary industry</li> <li>• Enhancement of renewable energy use.</li> <li>• Increased resilience of sectors: agriculture, livestock, etc.</li> <li>• Finance for identified climate technology solutions is ensured.</li> </ul>

<p><b>Gender aspects of the TA</b></p>	<p>Potential co-benefits of climate change adaptation:</p> <ul style="list-style-type: none"> <li>• Reduced exposure to food shortages and economic downturns derived from climate change impacts.</li> <li>• Reduced vulnerability to climate change in the country</li> </ul>
	<p>The technical assistance (TA) will Promote intervention where gender equality—the shared control of resources and decision-making—and women’s empowerment are central in the process. The level of awareness and appreciation of gender inequalities will be assessed as a part of the TA. The TA will be supported by an analysis of the relations between gender issues and climate resilience, and identify the gaps and opportunities for a TNA in Paraguay.</p> <p>The categorization scale that will be applied to the various elements of the technology analysis will be complementary to, and feed into, the DAC Gender Equality Marker to suggest appropriate interventions that address identified needs.</p> <p>As a result, the TA will develop a methodology and provide capacity-building on Gender Mainstreaming in TNA.</p>
<p><b>Anticipated contribution to NDC</b></p>	<ul style="list-style-type: none"> <li>• Taking stock of existing low-carbon technologies in Paraguay;</li> <li>• Undertaking comprehensive identification of technical and technology needs by NDC sector;</li> <li>• Identifying technical capacity-building needs for deployment of these technologies; Implementing the Paraguay technology action plan (TAP) in cooperation with all stakeholders.</li> </ul>
<p><b>The narrative story</b></p>	<p>The Paris Agreement identified technology as a key area where developing countries need support, and in particular LDCs. In consistency with National Priorities established in the NDC for Paraguay, the government plans to conduct a Technology Needs Assessment (TNA) with a Technology Action Plan (TAP). Paraguay has never initiated this process before. TNA is a prerequisite for planning to the achievement of the objectives set in the NDC. The goal of this project is to prepare a TNAs selecting those technologies that reduce greenhouse gas emissions, support adaptation to climate change, and are consistent with Nationally Determined Contributions and national sustainable development objectives.</p> <p>As a result, the technology needs for the identified priority sectors (especially: (1) energy (2) agriculture (3) livestock (4) Waste and (5) forestry) need to be identified to promote investment in climate technologies.</p>
<p><b>Contribution to SDGs</b></p>	<p>SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all: the TNA and TAP will contribute to facilitating access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy in Paraguay.</p> <p>SDG 13 - Take urgent action to combat climate change and its impacts: The TNA and TAP will improve education, awareness-raising and human and institutional capacity on climate change mitigation and adaptation in Paraguay, by identifying and selecting technologies that will address the barriers to climate change adaptation and mitigation. Moreover, it will promote mechanisms for raising capacity for effective climate change-related planning and management, through capacity building and training to relevant stakeholders in the priority sectors for climate adaptation and mitigation.</p> <p>SDG 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss: The TA will provide</p>

Reference to knowledge products	advice and analysis to promote the sustainable management of Paraguay's ecosystems as well as a land use change through the selected technologies.
	<ol style="list-style-type: none"> <li>1. UNFCCC (2016). "Enhancing Implementation of Technology Needs Assessments: Guidance for Preparing a Technology Action Plan"</li> <li>2. Jiska De Groot, UNEP DTU Partnership (2018). "Guidance for a gender-responsive Technology Needs Assessment"</li> <li>3. UNEP DTU Partnership (2015). "Identification and Engagement of Stakeholders in the TNA Process: A Guide for National TNA Teams"</li> </ol>

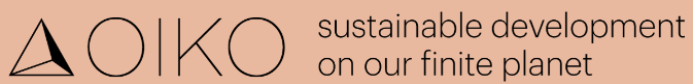



## 4. Timelines for Deliverables


Output 1.3.1: Effective coordination mechanism between NDA and NDE for the UNFCCC Technology Mechanism and other climate finance focal points		
Activities	Deliverables	Timeline (Tentative and depending on COVID-19)
1.3.1a. Development of CTCN planning and communication documents	Deliverables 1.1.1a	
	▲ 1.3.1a (i): CTCN Work plan	09/11/21
	▲ 1.3.1a (ii): CTCN Monitoring and evaluation plan	09/11/21
	▲ 1.3.1a (iii): CTCN Impact description	09/11/21
	▲ 1.3.1a (iv): CTCN Closure and Data Collection report	01/13/23
Activity 1.3.1b. Conduct stakeholder's analysis	Deliverables 1.3.1b	
	▲ 1.3.1b (i): Stakeholder mapping report, where roles and responsibilities are specified.	18/12/21
	▲ 1.3.1b (ii): Report of the 2 -day stakeholders' workshop (including list of participants gender- disaggregated data and other relevant documentation)	18/12/21
Activity 1.3.1c: Support the establishment of a TNA Committee	Deliverable 1.3.1c	
	▲ 1.3.1c (i): Official government circular establishing the national TNA committee	15/01/22
	▲ 1.3.1c (ii): TNA Constitution document informing on the work of the TNA Committee	15/01/22
	▲ 1.3.1c (iii): Training and list for participants	31/01/22
	▲ 1.3.1c (iv): TNA Committee Work plan	15/01/22
	▲ 1.3.1c (v): Report of quarterly TNA committee meetings	February 2021, June 2022, October 2022, February 2023
Output 1.3.2: Private sector (with a focus on SME) capacity is strengthened and the creation of an enabling environment for their participation in climate technology adoption through innovative new business identification training programmes is supported		
Activities	Deliverables	Timeline (Tentative and depending on COVID-19)
Activity 1.3.2a: Enhance SME capacity and enable environment through innovative new business identification training programmes	Deliverables 1.3.2a	
	▲ 1.3.2a (i): Workshop report, including a full list of participants with gender-disaggregated data,	19/12/22


pre- and post- evaluation assessments. The reports will include the innovative business and training programmes identified.		
<b>Output 2.2.1 Appropriate climate technology solutions are identified and prioritized and relevant action for increased access to finance is identified</b>		
Activities	Deliverables	Timeline (Tentative and depending on COVID-19)
Activity 2.2.1a: Pre-select sub-sectors for the fulfilment of Paraguay's TNA	Deliverables 2.2.1a	
	2.2.1a (i): Report on TNA-TAP alignment with national plans/grants	14/02/22
	2.2.1a (ii): Report on analysis of sectoral priorities expressed in national documents	14/02/22
	2.2.1a (iii): Report describing the methodology utilized for sector and subsector selection and prioritization.	01/03/22
	2.2.1a (iv): Stakeholders consultation workshop report, including a full list of participants with gender- disaggregated data.	01/03/22
2.2.1b: Assess, prioritize and validate key technologies for the fulfilment of Paraguay's TNA	Deliverables 2.2.1b	
	2.2.1b (i): Up to 40 technology fact sheets (10 per sector)	31/04/22
	2.2.1b (ii): Report detailing the set of criteria for the MCA exercise	31/04/22
	2.2.1b (iii): Workshops reports, including a full list of participants with gender-disaggregated data.	15/06/22
	2.2.1b (iv): Final reports including a mitigation TNA report and an adaptation TNA report.	04/07/22
	2.2.1b (v): Database in the most suitable format. The format will be decided with the NDA.	02/05/22
2.2.1c Develop a Technology Action Plan per sector and /or sub-sector	Deliverables 2.2.1c	
	2.2.1c (i): Draft report and executive summary of 4 Technology Action Plans for each of the priority technologies in compliance with the TNA.	25/10/22
<b>Output 2.2.2 Effective stakeholders' engagement and information dissemination for enhanced country ownership and technology deployment</b>		
Activities	Deliverables	Timeline (Tentative and depending on COVID-19)


Activity 2.2.2a: Conduct a national consultation workshop to ensure national ownership and technology deployment		
	Deliverables 2.2.2a	
	2.2.2a (i): Workshop report including a full list of participants with gender-disaggregated data	19/12/22
	2.2.2a (ii): Validated report and executive summary of 4 Technology Action Plans for each of the priority technologies in compliance with the TNA	19/12/22
2.2.2b: Support the implementation of the Technology Action Plan with communications, guidance, and training		
	Deliverables 2.2.2b	
	2.2.2b (i): Policy briefs and market-use cases for the selected technologies.	23/01/23
	2.2.2b (ii): Report on the dissemination strategy.	23/01/23
	2.2.2b (iii): Training materials for the sub-national workshops.	23/01/23
	2.2.2b (iv): Workshops reports, including a full list of participants and pre- and post- evaluation assessments.	30/01/23
Output 4.1.1: Concept Notes for Technology Action Plans operationalization developed		
Activities	Deliverables	Timeline (Tentative and depending on COVID-19)
Activity 4.1.1a: Develop concept notes for priority sectors for submission to the GCF		
	Deliverables 4.1.1a	
	4.1.1a: Two concept notes developed for climate technology deployment to be submitted to the GCF.	28/02/23
CTCN Mandatory Activities and Deliverables: development of implementation planning, reporting and communication documents		
Activities	Deliverables	Timeline (Tentative and depending on COVID-19)
I. Produce the GCF readiness interim and completion reports, as per templates attached.		
	Deliverables I	Level of Effort
	GCF readiness interim progress report	February 2022, September 2022
	GCF readiness project completion report	February 2023



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