

Monitoring & Evaluation (M&E) Plan and Impact Statement Form

Objective of the M&E Plan and Impact Statement:

- The M&E Plan and Impact Statement must be designed based on the Technical Assistance Response Plan and must enable the Implementer to complete the Closure Report at the end of the assistance.

Process for filling in the form:

- The Implementer must identify relevant quantitative and qualitative indicators as specified in the Closure Report. A sub-set of indicators to monitor and assess must be chosen among these.
- The Implementer may also identify 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.
- During implementation of the TA or FTA, the Implementer must collect all relevant data as described in the Monitoring & Evaluation Plan. 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.

Basic Information	
Title of response plan	Use of digital technologies to develop a methodology to increase climate resilience in the city of Ouagadougou in Burkina Faso through nature-based solutions
Technical assistance reference number	3100004637
Country/ countries	Burkina Faso
NDE focal point and organisation	Pamoussa OUEDRAOGO, Direction Générale de l'Economie Verte et du Changement Climatique (DGEVCC)
Sector(s) addressed	Infrastructure and Urban planning
Technologies supported	Hazard mapping solutions; Flood hazard mapping
Implementation period and total duration	28/06/2021 to 28/09/2022 (15 months)
Total budget for implementation	USD 230 820
Designer of the response plan	Foundation Green Action, Burkina Faso
Implementer of response plan	Resallience by Sixense Engineering and AGEIM Ingénieurs Conseils

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments
Output 1: Develop communication documents and implementation work plan	Number of activity indicators met	4	NA	NA
Activity i: Develop detailed Implementation Plan	Total number of deliverables produced (excluding mission, progress and internal reports)	1	The methodology will be validated with the support of the NDE and beneficiary through calls and emails exchanges.	The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions, availability of the NDE/beneficiary/stake holders. The implementation plan will consider local holidays and bank holidays Finally the methodology will be adapted to the data provided by the NDE/beneficiary/stake holders.
Activity ii: Develop a monitoring and evaluation plan	Total number of deliverables produced (excluding mission, progress and internal reports)	1	The present M&E plan will be validated with the support of the CTCN, NDE and beneficiary through calls and emails exchanges.	NA
Activity iii: Impact description document (2-page description of the expected impact of the CTCN technical assistance)	Total number of deliverables produced (excluding mission, progress and internal reports)	1	The present impact statement will be validated with the support of the CTCN, NDE and beneficiary through calls and emails exchanges. It will also be revised and validated at the end of the TA.	NA
Activity iv: A CTCN	Total number of	14	The deliverables will	NA

Closure and Data Collection report	deliverables produced during the TA (excluding mission, progress and internal reports		be validated with the support of the CTCN, NDE and beneficiary through calls and emails exchanges.	
Output 2: Territorial and geo-spatial diagnosis of the city of Ouagadougou through the use of satellite technologies	Number of activity indicators met	3	NA	NA
Activity 2.1: Online kick-off meeting with main stakeholders	Number of participants disaggregated per gender	12 participants 6 women	List of participants (with name, institution and gender) and report	The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions, availability of the NDE/beneficiary/stake holders.
Activity 2.2: Use of satellite technologies in Ouagadougou	Number of maps generated; Number of sites identified for the promotion of the use of green infrastructures;	4 maps (1 flood map, 1 urban heat islands map, 1 land cover/land use map, 1 map of the identified sites) 10 to 20 sites	Maps	The number of sites identified will highly depend on the geographical limits of the area of interest that should be validated with the stakeholders.
Activity 2.3: Analysis of satellite maps to identify issues, constraints, site management challenges	Number of sites analysed and included in the classification	10 to 20	Maps and land use data	The analysis should consider the estimated availability of the sites, which will require data and validation from the NDE and beneficiary
Output 3: Identify sites in consultation with all stakeholders	Number of activity indicators met	2	NA	NA

Activity 3.1: Vulnerability assessments of the sites	Number of sites visited and analysed	10 to 15	NA	This activity (in particular the international travels and site visits) will be planned based on COVID 19 restrictions and availability of the NDE/beneficiary/stake holders.
Activity 3.2: Organization of a 2-day workshop with all stakeholders.	Number of participants disaggregated per entity (Governmental, non-governmental and private sector) and gender	40 participants; 20 women 5 from governmental entities 15 non-governmental entities 10 from the private sector	List of participants (with name, institution and gender) and report	Identification and definition of the main stakeholders that should be involved with support of the NDE and beneficiary. The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions, availability of the NDE/beneficiary/stake holders.
Output 4: Presentation of a portfolio of green infrastructure for the pilot city	Number of activity indicators met	5	NA	NA
Activity 4.1: Definition of a plan for urban green Infrastructure in the city of Ouagadougou	Number of preliminary green infrastructure options submitted to the city	15 to 20	NA	NA
Activity 4.2: 2-day workshop for the presentation of vegetalization options to Urban green infrastructure & preparation of the awareness-raising campaign for citizens and younger populations	Number of participants disaggregated per entity (Governmental, non-governmental and private sector) and gender	40 participants; 20 women 5 from governmental entities 15 from non-governmental entities 10 from the private sector	List of participants (with name, institution and gender) and report	Identification and definition of the main stakeholders that should be involved with support of the NDE and beneficiary. The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions,

				availability of the NDE/beneficiary/stake holders.
Activity 4.3: Advanced study of the economic, environmental, social and climatic impact of the selected greening projects (max 10)	Number of green infrastructure options studied in detail; Anticipated infrastructure and built environment resilience to climate change impacts as a result of the TA (core indicator 2)	5 to 10; Reduction in flood exposed areas, Creation of urban freshness islands;	Maps	NA
Activity 4.4: Campaign awareness for the citizens (up to 10 neighbourhoods)	Total number of participants disaggregated by gender and age	160 participants; 80 women; 100 persons under 24 (youth)	Head count and survey (gender and age), pictures	Will highly depend on the local stakeholders' ability to attract participants. The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions, availability of the NDE/beneficiary/stake holders.
Activity 4.5: Description of the methodology applied to the project to promote replicability to other pilot cities	Total number of deliverables produced (excluding mission, progress and internal reports)	1	The deliverables will be validated with the support of the CTCN, NDE and beneficiary through calls and emails exchanges.	NA
Output 5: Information, Communication and Awareness Raising of Schoolchildren on the Impact of Green Spaces and Urban Green Infrastructures	Number of activity indicators met	4	NA	NA
Activity 5.1: Production of a graphic manual to raise awareness among young	Number of schools getting the manual ; Number of kids sensitized disaggregated by	3 schools, 750 kids; 350 girls	NA	The schools will be determined in activity 4.2 with the support of the NDE and beneficiary

people about the impact of green spaces and urban green infrastructure	gender			
Activity 5.2: Initiate awareness-raising, information and communication activities in three (03) schools through "an environmental week	Percentage of participants (teachers and children) reporting satisfaction, disaggregated by gender	100% of teachers; 80% of children; 50% women, 50% of girls	Survey (disaggregated by gender)	Smooth organisation with the administrations of the schools. The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions.
Activity 5.3: Organize the establishment of pilot projects in three schools in the city of Ouagadougou	Percentage of participants (teachers and children) reporting satisfaction, disaggregated by gender	90% of teachers, 70% of children; 45% women, 35% of girls	Survey (disaggregated by gender)	Smooth organisation with the administrations of the schools
Activity 5.4: Define a methodology that will enable the replication and promotion of environmental education in schools in Burkina Faso	Total number of deliverables produced (excluding mission, progress and internal reports)	2 (written framework and graphical manual from Activity 5.1)	The deliverables will be validated with the support of the CTCN, NDE and beneficiary through calls and emails exchanges.	NA
Output 6: Redcat a concept note	Number of activity indicators met	2	NA	NA
Activity 6.1: Select the idea for the concept note	Number of participants disaggregated per gender	10 participants (NDE, NDA, beneficiary, and pilot city), 5 women	List of participants (with name, institution and gender) and report	The implementation plan and more specifically the workshops and trainings will be planned based on COVID 19 restrictions, availability of the NDE/beneficiary/stake holders.
Activity 6.2: Redact concept note	Anticipated amount of public funding mobilised from climate finance sources (core indicator 4)	USD 1 to 5 million	NA	Data availability and quality suitable to support a cost-benefit analysis

Note: The Response Plan may contain information useful for the section below. The information in the table below will be used by the CTCN for public communication of the achieved and expected results of the Technical Assistance through the CTCN website www.ctc-n.org and other communication channels. See for example: https://www.ctc-n.org/sites/www.ctc-n.org/files/benin_ag_forestry.final_.pdf

Impact Statement	
Challenge	<p><i>Burkina Faso is experiencing strong population growth and urban sprawl. The population could reach 25 million by 2025, 9 million of whom will live in urban areas (mainly in the capital Ouagadougou and Bobo-Dioulasso). The accelerated urbanization of the country is one of the major causes of environmental degradation, which increases the city's vulnerability to climate hazards. Indeed, the geographical position of Burkina Faso (the Sahel region) means that the country is subject to climate hazards such as floods, droughts, heat waves, strong winds and dust storms. Burkina Faso's vulnerability to droughts and floods is also projected to increase as the frequency and intensity of extreme weather events increases. Green spaces and green infrastructures could be used to increase the climate resilience of the city. However, areas intended for green sites in Burkina Faso are often illegally occupied (27% in 2012) and diverted from their initial use.</i></p>
CTCN assistance	<ul style="list-style-type: none"> • <i>develop and implement a methodology based on satellite technologies to identify sites for the promotion of urban green infrastructure</i> • <i>prepare a plan to implement and manage green infrastructure on the identified sites</i> • <i>draft a concept note to facilitate the financing of the proposed projects</i> • <i>contribute to capacity building in green infrastructures in Burkina Faso and awareness rising to the challenges of sustainable cities among the youngest and most vulnerable populations.</i>
Anticipated impact	<ul style="list-style-type: none"> • <i>Anticipated increased infrastructure and built environment resilience to climate change impacts (core indicator 2)</i> • <i>Anticipated amount of public funding mobilised from climate finance sources (core indicator 4)</i>
Anticipated co-benefits from the TA	<p><i>The construction of green spaces will have a positive impact on the entire population, especially women and children, by reducing pollution, improving air quality and beautifying the city in addition to the improvements in the city resilience to climate risks.</i></p>
Gender aspects of the TA	<p><i>The notion of gender is explicitly taken into account in various national strategies of Burkina Faso so that vulnerable or disadvantaged populations can take part in the implementation of landscaping actions through creation of decent green jobs and access to the goods and services of these landscaped areas. The TA is in line with these strategies and accounts for gender equality issues, though:</i></p> <ul style="list-style-type: none"> • <i>Participatory actions: to involve citizens in urban planning and allow them to participate in the design, selection and maintenance of landscaped areas.</i> • <i>Communication actions: through the use of social networks, and participation workshops where the importance and impact of green spaces on the resilience of cities to the effects of climate change will be discussed.</i> • <i>Education actions: a graphic manual will be prepared for schools and could be disseminated to other municipalities (not only the pilot municipality).</i>

	<p><i>This is reflected in several activities of the TA, in which a gender expert will be involved. The project also intends to involve experts in capacity building and experts in communication, dissemination and design.</i></p> <p><i>In addition, the workshop and campaigns will be organized to attract similar percentages of women and men.</i></p>
<p>Anticipated contribution to NDC</p>	<ul style="list-style-type: none"> • <i>Contribution to the restoration and protection of ecosystems</i> • <i>Contribution to urban cooling and energy-saving</i> • <i>Contribution to awareness raising on climate change issues among the population</i>
<p>The narrative story</p>	<p><i>Burkina Faso faces several challenges, including population growth and urban sprawl, vulnerability to climate hazards (floods, droughts, windstorms), illegal occupation of land intended for green spaces in the National Landscaping Strategy, and disappearance and decline of local and foreign fruit, ornamental and forest species in Burkina Faso. The Government of Burkina Faso (through the Ministry of Environment, Green Economy and Climate Change), the City of Ouagadougou and the Green Action Foundation have recognized the need to address these challenges through the protection, beautification and enhancement of green spaces and infrastructures. Hence, they requested the assistance of the CTCN and a consulting team (composed of the companies RESALLIANCE and AGEIM) to leverage satellite technologies to identify, secure, develop and protect green spaces and infrastructures.</i></p> <p><i>The main objectives of this technical assistance are to i) develop and implement a methodology based on satellite technologies to identify sites for the promotion of urban green infrastructure, ii) prepare a plan to implement and manage green infrastructure on the identified sites, iii) and draft a concept note to facilitate the financing of the proposed projects.</i></p> <p><i>To ensure that this initiative is successful in the long term, the assistance includes the promotion of citizen participation and awareness-raising actions towards women and children that are often exempted from such initiatives. The CTCN will also ensure that the methodology developed and implemented can be replicated to other pilot cities in Burkina Faso.</i></p>
<p>Contribution to SDGs</p>	<p>SDG 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation: <i>The TA will leverage satellite technologies to identify, secure, develop and protect green spaces and infrastructures. To this end, a geo-spatial analysis of the city of Ouagadougou will be performed to assess the territorial dynamics, the importance of urban green Infrastructure, their state of conservation and the need to renovate them. This analysis will be complemented by a geophysical analysis of the city to assess the spatial and temporal evolution of surface and air temperatures, and to identify Urban heat (UHI) and Freshness (UFI) island. Hence, this TA will provide information based on innovative methodologies and satellites technologies to support urban planning.</i></p> <p>SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable: <i>The TA will contribute to the development of urban green infrastructures in Ouagadougou. The concept and implementation of green infrastructures is innovative and aims to allow humans to recognize the role of environmental resources in their livelihoods, and also to point out that ecosystem services also require maintenance to sustain their capacity to</i></p>

	<p><i>provide clean water and air, aesthetic benefits, physical and mental health, wildlife conservation and other community values. The TA also includes the consultation and participation of stakeholders in the design and selection of the green infrastructures' options, in particular vulnerable groups (women and children) for inclusive urban planning.</i></p> <p>SDG 13 - Take urgent action to combat climate change and its impacts: <i>The promotion of green spaces and infrastructures in Ouagadougou will contribute to the reduction of climate change impacts by increasing flood resilience (through water retention and filtration) and urban heat islands (through cooling and energy-saving benefits). The restoration of ecosystems can help combat climate change.</i></p>
Reference to knowledge products	<i>Monitoring and Evaluation Framework, TEC Brief on climate technology financing</i>