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

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 template:

- 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	**Water recycling technologies in Namibia**
Technical assistance reference number	
Country/ countries	**Namibia**
NDE focal point and organization	Dr. Jonathan Mutau Kamwi Department of Environmental Affairs Private Bag 13306, Windhoek, Namibia Phone: +264 61 2842808 Emails: mutauk@yahoo.co.uk
Sector(s) addressed	Water
Technologies supported	
Implementation period and total duration	6 months
Total budget for implementation	USD 123,637
Designer of the response plan	KEITI (Korea Environmental Industry & Technology Institute), Ministry of Environment
Implementer of response plan	Yooshin Engineering Corporation, The republic of Korea.

(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 *Development of implementation planning and communication documents*	*Number of communications such as e-mail and webinar.*	*Detailed work plan* *Minutes of webinar*		
Activity 1.1 *A detailed work plan*	*Number of communications to prepare detail work plan* *Number of revised version of detailed plan*	*Minutes of meeting* *Detailed work plan*	*Regular conference call between NDE and TA implementer*	*Current covid-19 situation covering the globe might affect to the detailed work plan at the stage of TA implementation*
Activity 1.2 A monitoring and evaluation plan *Activity 1.3* Impact Description	*Number of communications to prepare a monitoring and evaluation plan* *Number of revised versions of a monitoring and evaluation plan* *Number of communications to prepare an impact description*	*Monitoring & Evaluation plan* *CTCN Impact description*	*Data collection* *Document review* *Document review* *Consultation with local stakeholders*	*Due to the covid-19, Data collection is only available by the on line communication*
Activity 1.4 A Closure and Data Collection report	*Number of communications to prepare a closure and data collection report*	*Closure and data collection report*	*Data collection*	
Output 2 *Assessment of water resources*	*Number of documents to assess the status of water resources*	*Assessment of water resources management*	*Data collection* • *Statistical data of annual*	

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments
management and water recycling technologies in Windhoek	*management and recycling technologies in Namibia*		*rainfall* • *Operation data of existing water recycling facilities in WInddheok.* – *Influent (Flowrate, quality)* – *Effluent (Flowrate, quality)*	
Activity 2.1 Assess supply and demand	*Number of literature source reviewed.* *Number of reports assessing the water supply and demand situation in Namibia*	*Data collection list* *Document review report*	*Data collection* • *Population record for last 10years in Windeok* • *Record or water supply as per water source* – *Underground water* – *Recycled water* – *Rainfall (Dam)*	*Collecting statistical data for assessing the status of water resources and management in Namibia will be critical to perform output 2.*
Activity 2.2 *Identify the needs for recycled water*	*Amount of water needs to be recycled*	*Data collection list* *Assessment of water resources management*	*Projection of water demand based on the collected data* – *Population* – *Demand* – *Possible amount of water demand with existing water supply facilities*	
Activity 2.3 Identify the sectors for adopting recycling technologies		*Evaluation of existing water recycling technologies in Namibia*	*Data collection* – *Adapted water recycling technology in Windhoek* – *Literature review of up-to-date water recycling technology*	

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments
Activity 2.4 Identify technology options for each sector	*Number of technologies reviewed for adapting recycling water.*	*Classification of each sub-category for adopting water recycling technologies*	*Comparison of water recycling technologies which are reviewed in activity 2.3* *– Construction cost* *– Convenience of O&M*	
Activity 2.5 Feasibility review on implementing recycling technologies	*Number of reports reviewing feasibility of adapting recycling technologies*	*Feasibility review for selected water recycling technologies in Namibia*	*Feasibility review of selected technologies in activity 2.4* *– Adapted record in Namibia* *– Possibility of sustainable O&M with the current tariff in Namibia*	
Output 3 Roadmap and action plan	*Number of politics, strategies and politics drafted addressing climate change adaptation*	*Roadmap and action plan*	*Literature review of existing national level plan about water resources and response of climate change*	*The Namibia NDE and Ministry of Environment and Tourism will be a part of implementation of a policy action plan*
Activity 3.1: Define the scope and boundaries		*Roadmap and action plan*	*Data collection list* • *Integrated Water Resources Management plan for Namibia* • *NDP (National Development Pan) 5* • *VISION 2030*	
Activity 3.2: Developing technology roadmap		*Roadmap and action plan*	*Literature review* *Consultation with stakeholder*	
Activity 3.3: Developing action plan		*Roadmap and action plan*	*Literature review*	

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments
			Consultation with stakeholder	
Activity 3.4: Create reports	*Number of revised version of road map and action plan for preparing it.*	*Roadmap and action plan*	*Decision of roadmap and action plan based on the activity 3.2 and 3.3*	
Activity 3.5: Workshop	*Number of participants on line workshop* • *Number of men* • *Number of women*	*Minutes of workshop & list of participants*	*Hosting on-line workshop with key stakeholders* • *Namibia NDE* • *Ministry of Environment and Tourism* • *EIF Namibia* • *Representatives from direct beneficiaries*	
Output 4 Formulation of Market-based Financial Mechanism				
Activity 4.1: Set up Goals and Strategy	*Figure of*	*Report defining goals and strategy of project which will be proposed by TA*	*Review of financial operation and management data for existing water recycling facilities*	
Activity 4.2: Gather information on financing lines and business models for financing technologies		*Collected data list to perform financing modelling and financial analysis*	*Comparison of reviewed financial model*	

(A) Outputs and Activities as described in the Response Plan	(B) Indicator	(C) Expected results	(D) Method and frequency for data collection	(F) Comments
Activity 4.3: Formulate Market-Based Financial Mechanism		*Report of financial analysis based on the decided goals and strategy*	*Simulation of selected financial model*	

Note: 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_a_ag_forestry.final_.pdf

Impact Statement	
Challenge	*Namibia is facing severe and prolonged droughts, increased temperatures and aridity, and unpredictability in rainfall patterns. Recently in 2019, The city of Windhoek announced that it is capable of supplying water with 163,000 m^3 against 539,000 m^3 per week. Therefore, Namibian Government has strong willingness to overcome this threaten of climate change.* *To overcome and supply potable water sustainable, Namibian government must address a number of challenges such as* ➢ *Lack of infrastructures to construct water pipes and expand semi purified water to household's level* ➢ *Policy development to strictly encourage the use of recycle water for construction purposes*
CTCN assistance	• *Assessment of status for water resource management and existing water recycling in Namibia* • *Development of water reclamation project proposal funded by GCF and other international funding sources.* • *Development of roadmap and action plan for water recycling*
Anticipated impact	• *Anticipated number of people receiving potable water treated by reclamation plant which will be constructed as a result of TA* • *Amount of funding and investment leveraged as a result of TA*
Anticipated co-benefits from the TA	*Water is the basis of life on earth and is essential for good health, sanitation and a resource for maintaining life across the plane. Windhoek is expected to face absolute water scarcity. Climate change, however, will alter patterns of water availability and the frequency of droughts and floods will increase. In water scarcity country, waterborne disease, which is mainly caused by not enough supplying of potable water, needs to be addressed and be improved. The TA will encourage the development of water reclamation project in Namibia especially funded by organization related to the climate change. The TA will contribute to improve dweller's living quality in project area where mostly low-income citizen's live such as reducing the cost buying potable water and possibility of waterborne disease.*
Gender aspects of the TA	*Women and girls usually bear the responsivity for collecting water, which is habitually very time consuming, more vulnerable to abuse and attack while walking to and from water points.* *As a result of this TA, it will contribute to reduce women's and girl's labor force collecting water and vulnerability to be abused and attacked while collecting water.*
Anticipated contribution to NDC	*2 to 4 bullet points. Approximately 350 characters with spaces.*
The narrative story	*There is growing concern on whether the finite water resources will still be sustainable to all in the future. If climate change is brought into the mix, it*

	seems apparent that countries like Namibia currently suffering water supply shortages will find it ever more difficult to quench the thirst of their people *There is a need for water recycling technologies to be installed that will help build the resilience of droughts under the worsening drought conditions. The recycling and storage can provide security against periods of low rainfall and the failure or degradation of other water supplies.* *There is a limited level of water recycling technologies in Namibia, combined with high costs of water, and its capacity does not meet the demand requirement. While encouraging the adoption of more water saving techniques, locally applicable technologies for water recycling are not known.* *Based on the aforementioned situation related to the water resources in Namibia, the objectives of This TA is* ➢ *To propose feasible water recycling project to improve adaptation of climate change in Namibia* ➢ *To develop roadmap and action plan in terms of sustainability*
Contribution to SDGs	• *SDG 3(Good health and well-being) is to ensure healthy lives and promote well-being for all at all ages.* *As a result of project which is leveraged by this TA will contribute to improve the living condition such as healthy life and well-being life quality in project area* • *SDG 6(Clean water and sanitation) is ensure availability and sustainable management of water and sanitation for all.* *This TA will directly contribute to ensure availability and sustainability of potable water in project area* • *SDG 13(Climate action) to take urgent action to combat climate change and its impacts.* *After this TA, the adaptation capacity against climate change in project area will be increase.*