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TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v.1.5**

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KEY PROJECT INFORMATION

GS ID of Project	GS12807
Title of Project	Safe drinking water for Kenyan households and institutions (schools)
Time of First Submission Date	May 2024
Date of Design Certification	
The version number of the PDD	01
Completion date of version	
Project Developer	Nazava Water Filters Limited, Kenya
Project Representative	Nazava Water Filters Limited, Kenya
Project Participants and any communities involved	
Host Country (ies)	Kenya
Activity Requirements applied.	☒ Community Service Activity ☐ Renewable Energy ☐ Land-Use and Forests Activity Requirements /Risks & Capacities ☐ N/A
The scale of the project activity	☐ Micro scale ☐ Small Scale ☒ Large Scale
Other Requirements applied	N/A
Methodology (ies) applied and version number	EMISSION REDUCTIONS FROM SAFE DRINKING WATER SUPPLY, VERSION 1
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A

Project Cycle: ☐ Regular ☒ Retroactive

Table 1 – Estimated Sustainable Development Contributions

Sustainable Development Goals Targeted	SDG Impact (Defined in B.6)	Estimated Annual Average	Units or Products
SDG 13: Climate Action (mandatory) 13.2: Integrate climate change measures into national policies, strategies, and planning.	13.2.1: Total amount of CO2e emissions reduced by the project per annum.	36,696.41	tCO ₂ e/year
SDG 1: No Poverty 1.4: By 2030, ensure that all men and women, people with low incomes and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.	1.4.1: Proportion of the population living in households with access to basic services. Indicator: The number of premises, i.e., households and schools using the water filters to clean their drinking water.	26,600	Number of households and institutions/year
SDG 3: Good Health and Well-Being 3.9: By 2030, reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	3.9.1: Mortality rate attributed to household and ambient air pollution. Indicator: Improvement of indoor air quality.	100%	Percentage
	3.9.2: Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services). Indicator: Reduction incidences of diarrhea and water-borne diseases after shifting to using water filters.	100%	

SDG 5: Gender Equality 5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	5.4.1: Proportion of time spent on unpaid domestic and care work by sex, age, and location. Indicator: Average time saved associated with the hours spent looking for firewood and boiling water.	100	%
SDG 6: Clean Water and sanitation 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.	6.1.1 Proportion of the population using safely managed drinking water services. Indicator: The number of people using the water filters in households and schools to clean their drinking water.	26,600	People/year
SDG 7: Affordable and Clean Energy 7.1 By 2030, ensure universal access to affordable, reliable, and modern energy services.	7.1.2: Proportion of population with primary reliance on clean fuels and technology. Indicator: Number of ceramic water filters operational.	26,600	Number/year
SDG 8: Decent work and economic growth 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value.	8.5.1: Average hourly earnings of female and male employees by occupation, age, and persons with disabilities. Indicator: Total number of employees by employment contract, by gender.	100	jobs/year
SDG 15: Life on Land 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.	Indicator: Total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology	80,000	Tonnes/year

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

Nazava Water Filters Limited is a social enterprise that sells and distributes ceramic candle water filters across Kenya. The project targets low-income households in rural and urban areas through a wide network of resellers and microfinance institutions/Saccos under Nazava Water Filters, which means “cleanliness” in Arabic.

The project aims to provide safe drinking water in households and institutions in rural and urban areas of Kenya by installing affordable Nazava water filters. The applied technology is a ceramic water filter that produces water of safe drinking water quality. The persistent presence of water contaminated with microbiological concentrations poses a continuous threat to the health and well-being of over a billion individuals, particularly in developing countries. In the Global South, the central water infrastructure is unavailable or unreliable leading to unsafe water at the tap. In such cases, decentralized water treatment solutions can be used.

In Kenya, most people do not have access to safe drinking water at the point of use. In 2022, at the national level, 30% depend on water sources that are not safe for direct consumption¹.

Figure 1 :Percentage of households using surface water, unimproved water, limited water or basic water sources in rural and urban areas¹. These households either use surface water (20%) or water from an unimproved source (10%)¹. In rural areas, 37% of households use water from an unprotected well (12%) or surface water from a river or pond (25%)¹, see Figure 1. 11% of the households in rural areas fetch water from a source that exceeds a 30-minute distance from their premises¹.

For schools, at national level 7.6% have no drinking water facility, 55% consume water directly from the tap or borehole, 20.4% consume rainwater and 17% drink river water¹. Due to population density, open defecation, lack of sewage systems and soil characteristics, ground water is not safe to consume directly. Due to maintenance

¹<https://washdata.org/data>

issues and technical failure, piped water from water utilities is considered unsafe for direct consumption².

Unsafe water leads to waterborne diseases, such as diarrhea. In 2020, diarrhea caused 15,420 deaths in Kenya³, making it the third leading cause of death and one of the biggest health problems linked to unsafe water⁴. Additionally, 1.8 million children under the age of 5 in Kenya are stunted, accounting for 26% of the total child population⁵. Worldwide, Kenya is the 31st country with the highest rate of diarrhea⁶.

In urban areas, treated water can be bought in bottles from water-kiosks. Assuming an average family uses 4 refill bottles per week at KES 200 per bottle this can amount to over US\$ 300/year, whereas in the Netherlands consumption of the same amount of water would cost only US\$ 6/year.

As promoted by the Kenya Bureau of Health, boiling of water is one of the widely used household water treatment methods in Kenya. According to the Kenya Demographic and Health survey 2022, 21% of households boil their water before consumption⁷. Like many other developing countries, the level of energy service in Kenya is not sufficient to meet human development needs due to lack of financial means and/or access to modern energy infrastructure or resources. As described in section 3.4 of the methodology for Emission Reduction from Safe Drinking Water Supply, this concept is known as suppressed demand. Therefore, due to the insufficient energy services the people of Kenya do not have access to safe drinking water. According to the Kenya Demographic and Health survey 2022, 63% of the household population do not treat their water prior to drinking⁷.

Project's Objectives

The project activity intends to improve access to safe drinking water for households and communities, using low greenhouse gas emitting ceramic filters water purification

²<https://www.the-star.co.ke/news/2019-03-08-dont-drink-kenyas-tap-water-its-unsafe-study/>

³<https://www.worldlifeexpectancy.com/kenya-diarrhoeal-diseases>

⁴<http://www.healthdata.org/kenya>

⁵<https://www.unicef.org/kenya/nutrition>

⁶<https://www.worldlifeexpectancy.com/cause-of-death/diarrhoeal-diseases/by-country/>

⁷KNBS and ICF. 2023. Kenya Demographic and Health Survey 2022:

<https://dhsprogram.com/pubs/pdf/FR380/FR380bis.pdf>

technology. The project activity reduces the use and demand of non-renewable biomass that would have been used to boil the water as a means of water purification in the absence of the project activity. This directly leads to reduced greenhouse gas emissions. This project activity is thus primarily designed for the long-term improvement of the living conditions in rural areas and peri-urban areas of Kenya.

Project's Implementation Plan

Nazava water filters limited will distribute the ceramic filters and their designated partners such as microfinance institutions, Saccos and women groups. Nazava will hire and train safe water experts (SWEs) on how to assemble the ceramic filters and conduct basic maintenance and how to conduct WASH and hygiene sensitization campaigns and workshops for the communities in Kenya.

Baseline Scenario

Precursory to the proposed project activity, the proposed project boundary, as described in section A.2 below, had limited access to clean drinking water. To make the water suitable for drinking, most people boil the water using non-renewable biomass. The baseline scenario is the perpetuation of this technique to make the water suitable for drinking. Therefore, the scenario prior to the implementation of the project in the project boundary is the baseline scenario of the project activity.

Project Scenario

In the project scenario, the proposed project activity will take the edge off the GHG emissions by the substitution of non-renewable biomass to purify water for drinking purposes with ceramic filters. Use of non-renewable biomass for water purification is not only energy intensive but also causes a significant amount of indoor air pollution which has perilous impacts on the health of the people. The project activity will result in an annual average CO₂ emission reduction of 36,696.41 tCO₂e over a 5-year crediting period.

The project activity is a voluntary initiative taken by the Nazava Water Filters Ltd., and implemented by Nazava Water Filters Ltd.

A.1.1. Eligibility of the project under Gold Standard

The project falls under GS4GG Community Services Activity Requirements.

Eligible Project Types & Scope:

The project aims at providing point of use zero-energy ceramic water filters that leads to climate change mitigation by reducing the firewood consumption of households.

It is pertinent here to confirm that the project activity is not registered under any other compliance, voluntary or any other scheme pertaining to emissions reductions and the benefits generated from the ERs as well as other SDG parameters.

a) Types of projects: The project falls under 'Emission reductions from Safe Drinking Water Supply' type.

Gold Standard for the Global Goals Applied Eligibility Principles

Principle 1: Contribution to Climate Security & Sustainable Development:

The project will contribute positively to Climate Security & Sustainable Development.

Having the ceramic water filters replace the boiling of water using firewood, the project directly contributes to SDG 13 (Climate action) and other SDGs including SDG 6, SDG 1, SDG 3 and others assessed and elaborated under the Sustainable Development Goals in section B.6 of the PDD.

Principle 2: Safeguarding Principles:

The project has conducted a Safeguarding Principles Assessment and ensured adherence to the Gold Standard Safeguarding Principles and Requirements. The assessment is included in Appendix 1 of the PDD.

Principle 3: Stakeholder Inclusivity:

The project conducted three local stakeholder consultation meetings, one in Nairobi on 18/04/2024, and two in the villages in Eldoret, Uasin Gishu county on 7/5/2024 and in Kapsogut, Kericho county on 8/5/2024. These meetings were done in accordance with the Gold Standard Stakeholder Consultation & Engagement Procedure, Requirements & Guidelines. The stakeholder feedback will be considered in the design, planning, and implementation of the Project as outlined in the attached Stakeholder Consultation & Engagement report. In addition, the

project will continually seek the views and inputs of stakeholders through the continuous input and grievance procedure to ensure all issues are captured and acted upon throughout the lifetime of the Project.

Principle 4: Demonstration of real outcomes:

The project will demonstrate real outcomes by undertaking the following:

- Creating and developing a Project Design Document (PDD), that incorporates a Project overview
b Monitoring & Reporting plan.
- The project plans to undertake a Preliminary Review, Project design certification and performance certification process while adhering to the principles and requirements to obtain A design certification that will comprise of Validation and Design Review
- Implementing monitoring in accordance with the Monitoring & Reporting Plan
- Obtaining Performance Certification comprising of Verification and Performance Review
- Renewal of Gold standard Design Certification periodically to maintain the certified project status.

Principle 5: Financial Additionality & Ongoing Financial Need:

The project has demonstrated financial additionality as discussed in section B.5 of the PDD.

b) Location of the Project: The project will be implemented across Kenya.

Project Area, Boundary and Scale: The project area and boundary are described under section A.2 below. The project falls under 'Emission Reduction for Safe Drinking Water Supply' type with emission reductions 36696.41 tCO₂e per year with the highest annual emission reduction being 85750.05 tCO₂e which is above the threshold of 60,000 tCO₂e per year making it a large-scale project.

c) Host Country Requirements: The project deals with reducing people's dependence on non-renewable biomass to purify water in Kenya. Kenya has not set any regulations setting cap on the emission reduction projects and there is no likelihood of the host country trading emissions that include the project's scope.

However, the host country has specific environmental, ecological, and social regulations as outlined in Table 2 below.

Table 2: Kenya's Specific environmental, ecological, and social regulations that apply to the project activity.

Kenya's Regulation	Law's provision	Nazava project's compliance
2010 Kenya's Constitution ⁸	It is the main guiding law in Kenya and all other subsidiary laws are guided by it. It assures and gives all the Kenyan citizens the right to safe and clean environment.	The project activity aims at providing safe drinking water to households and institutions. This will lead to improved health due to reduced waterborne diseases and indoor air pollution and promote hygiene and sanitation which is paramount in ensuring a clean and safe environment and human wellbeing.
Climate Change Act 2016 (Amendment 2023) ⁹	The act aims at enhancing climate change resilience and low carbon development for sustainable development of Kenya.	The project activity is supporting the use of zero energy, point of use water filtration technologies. By using the water filters, the pre-project practice of boiling water for drinking using non-renewable biomass is displaced.

⁸

http://www.parliament.go.ke/sites/default/files/2017-05/The_Constitution_of_Kenya_2010.pdf

⁹<http://www.parliament.go.ke/sites/default/files/2023-08/THE%20CLIMATE%20CHANGE%20%28AMENDMENT%29%20BILL%2C%202023.pdf>

Environmental Management and Coordination (amendment) Act 2015¹⁰	The Act of parliament provides for the establishment of an appropriate legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto. Part VII on Environmental Audit and Monitoring section 58 indicate in detail the need to undertake Environmental Impact Assessment of all projects likely to cause negative impacts to the environment as listed in the second schedule of the act. Moreover, part V of the Environmental Impact Assessment and therefore mandatory that an Environment Impact Assessment process.	The project will involve use of ceramic water filters that are not listed in the second schedule and therefore the project activity does not require EIA. The project activity is projected to have several positive environmental and social impacts.
Employment Act, 2007¹¹	The Act state and define the fundamental rights of employees, to provide basic conditions of employment of employees, to regulate employment of children, and to provide for matters connected with the foregoing.	The project will ensure compliance to the act by offering equal employment opportunities to all without discrimination. Additionally, the project will monitor the employees' remuneration to ensure equal pay for equal value of work.

¹⁰http://kenyalaw.org/kl/fileadmin/pdfdownloads/AmendmentActs/2015/EnvironmentalManagementandCo-ordination_Amendment_Act_2015_No5of2015_.pdf

¹¹

http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/EmploymentAct_Cap226-No11of2007_01.pdf

Public Health Act, 2012 ¹²	Th Act outlines the need for protection of public health in Kenya and lays down rules relative to, food hygiene and protection of foodstuffs, the keeping of animals, protection of public water supplies, the prevention and destruction of mosquitos and the abatement of nuisances including nuisances arising from sewerage.	The project aims a complimenting the efforts being made by local authorities in ensuring safe, affordable and reliable drinking water for all by providing water treatment solutions for households and institutions. Nazava intend to collaborate with public health officials within the project areas to ensure there is synergies in enhancing access to safe drinking water.
Standards Act, 2012 ¹³	The Act promote the standardization of the specification of commodities, and to provide for the standardization of commodities and codes of practice; to establish a Kenya Bureau of Standards, to define its functions and provide for its management and control; and for matters incidental to, and connected with, the foregoing.	The project has complied with the Act provisions of the and has conducted the required tests on the ceramic filters. The filters are KEBS certified which is offered as supporting evidence.
Environmental Management and Coordination (Water Quality) Regulations, 2006 ¹⁴	These regulations provide rules relative to the use and discharge of water for domestic, agricultural, and industrial purposes, make provision for the protection of water resources from pollution and define water quality standards.	The project will ensure compliance to these regulations through regular water testing in line with the set water quality standards.

¹² <http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/PublicHealthActCap242.pdf>

¹³ <http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/StandardsActCap496.PDF>

¹⁴ https://kenyalaw.org/kl/fileadmin/pdfdownloads/LegalNotices/2006/LN120_2006.pdf

Water Act 2016 ¹⁵	The Act states that every person in Kenya has the right to clean and safe water in adequate quantities and to reasonable standards of sanitation	The project aims at promoting access to clean and safe drinking water for all. The project will not cause any interference with water resources as it involves the use of ceramic water filters at point of use and does not require extraction of water. In addition, the project will ensure compliance with the set water quality standards as specified in the act.
Guidelines on Drinking Water Quality and Effluent Monitoring, 2008 ¹⁶	The guidelines outline the standards for the provision of water services to consumers and monitoring the compliance with established standards for the design, construction, operation, and maintenance of facilities for water services. In addition, it offers the guideline used when issuing the license and Service Provision Agreement (SPA) to water service providers (WSP) to ensure provision of potable water and safe treatment and disposal of wastewater	The ceramic filters to be used during the project are KEBS certified and WHO certified. The ceramic filters have been tested for filtration efficiency for the parameters E. coli, - Staphylococcus Aureas and Salmonella and have been found to remove the bacteria by up to 99.9%. (See attached KEBS Lab test result documents).

d) Contact details: The contact details of the project participants have been clearly defined under Appendix-2 of this document.

e) Legal ownership: the details regarding the legal ownership have been detailed below in section A.1.2 of this document.

f) Other Rights: This section is not applicable, as implementation of the proposed project does not involve any activity that causes alteration of any resource; therefore, acquiring any specific legal right.

¹⁵ https://kenyalaw.org/kl/fileadmin/pdfdownloads/LegalNotices/2022/LN222_2022.pdf

¹⁶ https://wasreb.go.ke/wp-content/uploads/2023/08/Drinking-Water-Guidelines-qwgem_Edited.pdf

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project.

Nazava Water Filters Limited is the legal owner of the project. The implementation of the proposed project does not involve any activity that causes alteration of any resource; therefore, acquiring any specific legal right to do so is not applicable. However, the entitlement of the emission reductions generated by the project shall be transferred to the project owner from the end users through a signed covenant.

The transfer procedure of the Voluntary Emission Reductions (VER) emanating from the use of filters was discussed with the stakeholders during the three LSC meetings. The discussion was held to ensure that all stakeholders are aware that Nazava Water Filters Limited (project developer) is the sole owner of the carbon credits generated. Further discussion was held to explain how the carbon finance will be utilized within the project cycle.

A.2 Location of project

Host Country: Kenya

The project will be implemented throughout the entirety of Kenya. The details of geographical location are presented in Table 3 and Figure 2.

Table 3: Geographical coordinates of project area

	Coordinates
Latitude	4.50° N to 4.65° S
Longitude	34.00° E to 42° E.

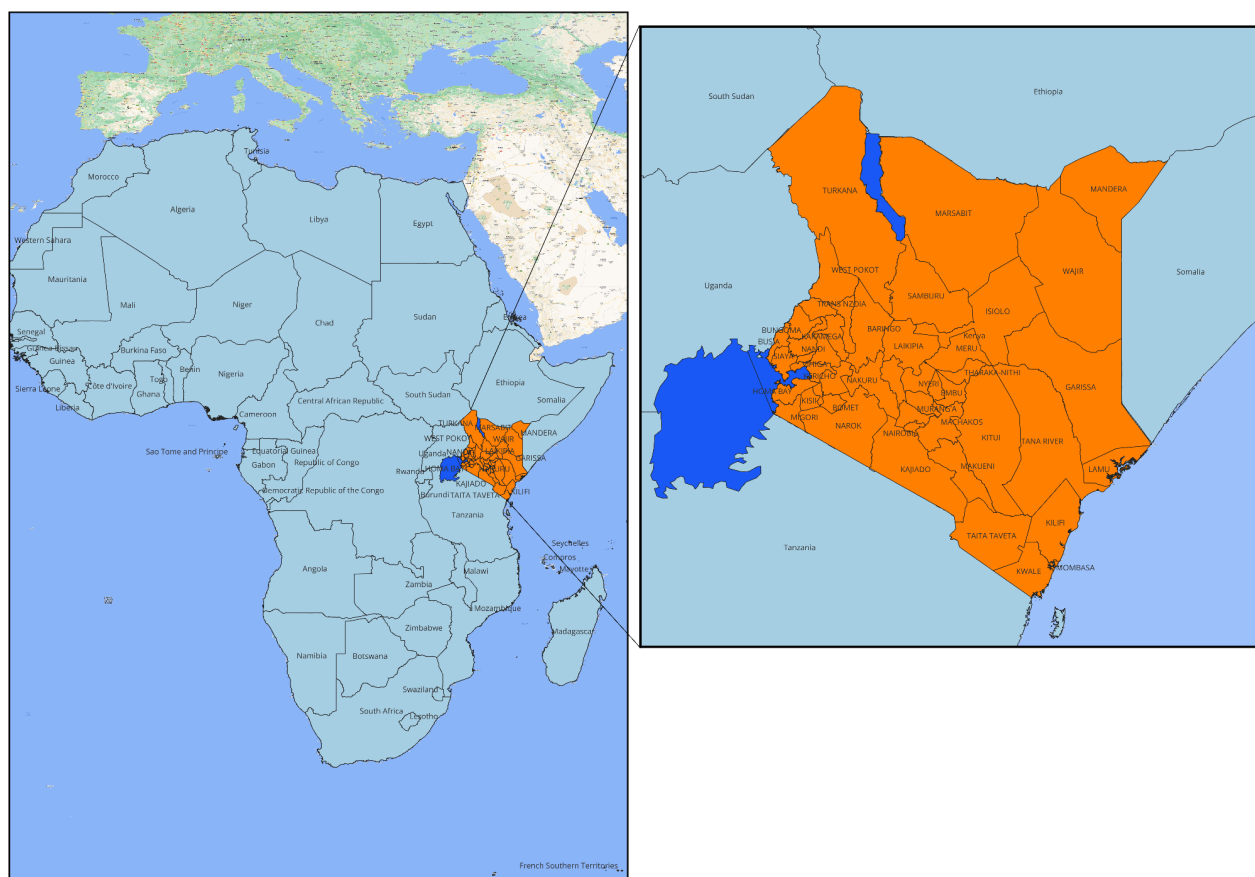


Figure 2: Geographical location of the project area- Kenya

A.3 Technologies and/or measures

A detailed description of the Nazava Water filters is as follows:

Nazava water filter is a 2 x 16-liter ceramic water filter with a flow speed of 2 liters per hour. The rationale behind terming it as a 2 x 16-liter ceramic filter is that it contains two compartments, one above the other as depicted in Figure 4 below. The upper compartment is where the inflow of unsafe water occurs whereas the second compartment contains the filtered purified water with an outlet attached to it. The Nazava ceramic filter candle, attached at the bottom of the upper container, called the Nazava PROT3CT has three main working components, each serving distinct functions as outlined below.

1. Ceramic:

The cone shaped ceramic membrane has a pore size of 0.4 micron. This component of the water purifier is responsible for filtering the dirt and bacteria in the water. Tiny pores in the ceramic membrane block bacteria and most dirt particles. The filters are made of diatomaceous earth with pores of 0.4 micron (0.0004 millimeter) and remove micro-organisms: bacteria, cysts, parasites, fungi, sand, clay, and other particles greater than 0.4 micron.

2. Nano silver:

The ceramic in the Nazava PROT3CT is impregnated with nano silver particles. Once the water passes through the ceramic, it reaches the nano silver component which further kills the bacteria and other microorganisms. The nanoparticles in the range of 1–10 nm stick to the cell membrane and drastically disturb its function, like permeability and respiration, this implies the bacteria cannot “eat” and “breath” anymore. The Silver nano particles get into the bacteria cell and cause further damage by binding with sulfur and phosphorus-containing compounds such as DNA (the molecules that store genetic information). The nanoparticles release silver ions which also bind to DNA making it impossible for the bacteria to replicate itself.

3. Activated Carbon:

The Nazava PROT3CT is filled with activated carbon which reduces the content of harmful chemicals such as pesticides and chlorine. It improves the taste and color and reduces the smell.

The Nazava PROT3CT purifies your water in three steps:

1. Dirt and bacteria are filtered out by the ceramic.
2. Bacteria and other microorganisms are killed by the nanosilver.
3. Activated carbon in the filter improves taste and makes your water fresh.

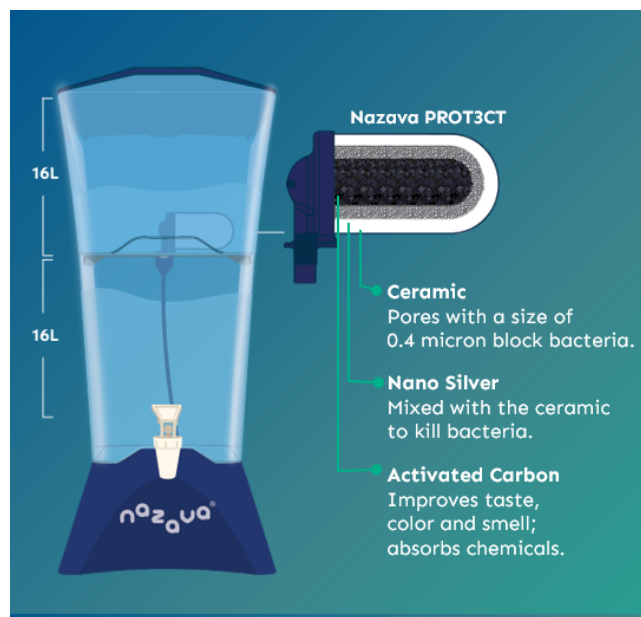


Figure 3: Nazava Water Filter compartments.

The filter technology conservatively purifies 2 liters per hour and is certified to last for 7,000 liters. Figure 4 below provides an insight into the filter technology.

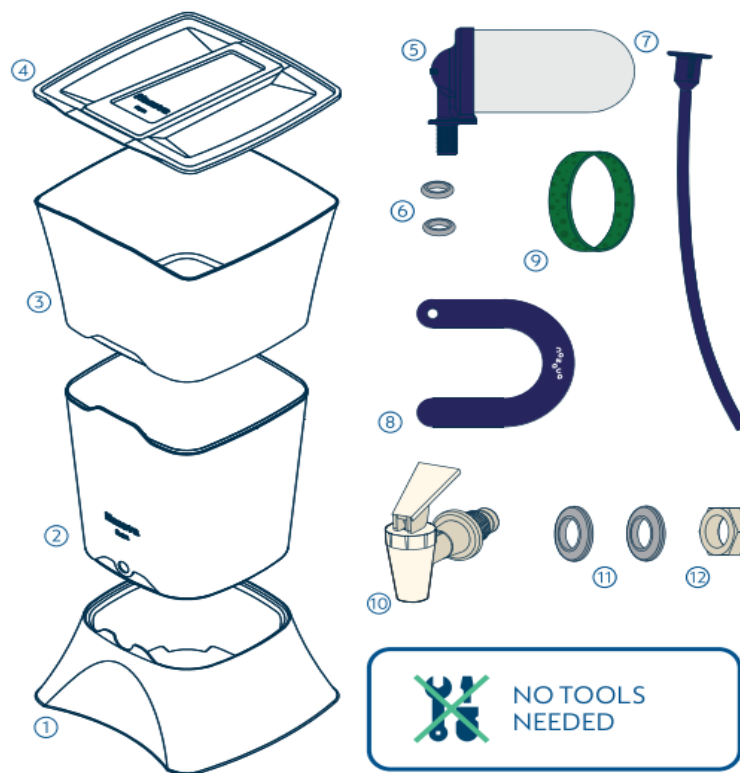


Figure 4: Detailed Nazava Water Filter technology components.

Using this technology, households can filter their own tap, well, river or rainwater. All these filters come with a local language user manual with clear directions, an indicator for filter replacement, and a one-year warranty card. The PROT3CT water filter has been one of the solutions for providing safe drinking water. They have been shown to effectively reduce diarrhea diseases, with independent tests and assessments available¹⁷.

¹⁷ WHO test report:
https://cdn.who.int/media/docs/default-source/wash-documents/regnet/products/whoscheme_r2_productreport_nazavawaterfilter.pdf?sfvrsn=dc8c3d1c_5

The project contributes directly to achieving the SDG 3,5,6,7,8 & 15 in addition to SDG 13 as required by Principle- 1 of GS4GG. The project will have the following benefits:

- Environmental Benefits: Reduction in firewood consumption and emission of greenhouse gasses, forest, and biodiversity conservation (SDG 13).
- Economic Benefits: Employment creation and saving of health cost (SDG 8).
- Social Benefits: The project will increase access to safe and clean drinking water to the communities (SDG 6).
- Health benefits: Access to safe drinking water will reduce the number of deaths and illnesses caused by consumption of unsafe water (SDG 3).
- Gender Equality: The use of water filters will reduce the amount of time used by women to look for firewood for boiling the drinking water thus providing them with more time to address their economic activities (SDG 5).
- Affordable, reliable, sustainable, and modern energy for all: Provision of ceramic water filters will provide clean technology for water treatment (SDG 7)
- Natural habitats conservation: The use of filters will reduce the amount of firewood used to boil drinking water therefore reducing deforestation (SDG 15).

A.4 Scale of the project

The project falls under 'Emission Reduction for Safe Drinking Water Supply' type with emission reductions 36696.41 tCO₂e per year with the highest annual emission reduction being 85750.05 tCO₂e which is above the threshold of 60,000 tCO₂e per year making it a large-scale project.

A.5 Funding sources of project

No public funding from parties included in Annex I to the UNFCCC is available to the project. The project is implemented by the project developer.

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

The following approved Gold Standard baseline and monitoring methodology is applicable to the project activity: Methodology for Emission Reduction from Safe Drinking Water Supply Version 1.0.

B.2. Applicability of methodology (ies)

Table 4: Methodology conditions applicable to the project

No	Applicability conditions in methodology	Characteristics of the project activity
a.	Eligible household water treatment technologies (HWT), institutional water treatment technologies (IWT), and community level water treatment technologies (CWT) include bleach/chlorine, water filter (ceramic, sand, composite, membrane, etc.), UV disinfection, etc.	This project includes distribution of HWT and IWT to improve the access of households and communities to safe drinking water using a low greenhouse gas emitting water purification technology, the Nazava water filter. The project activity reduces the use and demand of non-renewable biomass that would have been used to boil the water as a means of water purification in the absence of the project activity. This directly leads to reduced greenhouse gas emission.
b.	Eligible community water supply technologies (CWS) include new installation of new borehole hand-pumps, borehole hand-pumps rehabilitation, solar powered drinking water pumps, etc. Water pumps powered by fossil-fuel engines are not eligible, with the exception of backup fossil-fuel engines that are used for no more than 10% of operating hours (parameter SWDS 33).	Not applicable to this project as CWS is not included.
c.	All projects involving CWT and CWS technologies must also include ongoing maintenance and repair of the project technology.	Not applicable to this project as CWT and CWS are not included.
d.	Where the project involves the rehabilitation of an existing technology, the project developer shall provide evidence that the existing technology is non-operational and that there is no planned maintenance or repair for at least 3 months after the date it became non-operational (parameter SWDS 2).	Not applicable to this project as the project involves distribution of new HWT and IWT.

e.	This methodology allows for project activities to include safe water treatment and/or supply technologies implemented for end-users in households, and/or commercial premises such as shops or institutional premises including half or full day/boarding schools, prisons, army camps & refugee camps.	The HWT and IWT will be targeted at the community and institutional level. At community level, the HWT will target end-users in households in Kenya. At institutional level, the HWT will target schools in Kenya.
f.	In cases where the safe water is retrieved at the CWT or CWS location, the water in its improved form shall be available within a distance of 1 km or less from the end-users, as demonstrated by satellite imaging or GPS coordinates of each CWT or CWS location. Alternatively, as a proxy, a total collection time of 30 minutes or less for a round trip, including queuing, using the travel modes of walking, or pedaling may be demonstrated (parameter SDWS 1).	Not applicable to this project as CWT and CWS are not included.
g.	Project technology performance level (HWT and IWT): It shall be demonstrated based on report of laboratory testing or official notification that the project technology or equipment achieves either: (i) the performance target classification 3-star or 2-star level, meaning “Comprehensive Protection,” as per the WHO International Scheme to Evaluate Household Water Treatment Technologies (World Health Organization, 2011) or (ii) compliance with the national standard or guideline for household drinking water treatment technology; if no national guideline or standard is available, then the project technology shall comply with the WHO International Scheme requirements as per (i) (parameter SDWS 2).	The technology performance level for the HWT and IWT meets compliance with the national standard or guideline for household drinking water treatment technology as it is certified by the Kenya Bureau of Standards (KEBS). The acceptance criteria-title and number of specifications against which it is tested, and the KEBS is the WHO Microbiological performance criteria for Household water treatment technologies. Furthermore, the HWT is also certified by the WHO International Scheme to Evaluate Household Water Treatment Technologies. The performance target classification is 1-star.

h.	Project technology performance level (CWT and CWS): For each individual CWT or CWS, it shall be demonstrated at the start of each crediting period with water quality testing reports that the water directly supplied by the project water technology/source achieves both: i. microbial quality in line with either (i) national standards or guidelines for microbial quality of drinking water, or in the absence of such requirements, (ii) the guideline values for verification of microbial quality from the Guidelines for drinking-water quality (Table 7.10, WHO, 2017); and ii. compliance with (i) national standards or guidelines on priority chemical contamination and physical and aesthetic aspects, or in the absence of such requirements, (ii) international standards or guidelines on priority chemical contamination and physical and aesthetic aspects. (parameter SWDS 3).	Not applicable to this project as CWT and CWS are not included.
i.	The project must conduct annual water hygiene education campaigns for the end-users. (parameter SDWS 20).	Nazava works together with 64 safe water experts (SWEs) in Kenya who participate in conferences and/or visit end-users to educate them on the importance of clean drinking water. Also, Nazava contributes to water hygiene education campaigns by posting information on social media including LinkedIn, Instagram, and Facebook. On LinkedIn Nazava has a reach of 2850 and on Instagram and Facebook a reach of 71 and 895, respectively. In addition, the project will conduct annual water hygiene education campaigns for the end-users as a monitoring parameter.
j.	A project applying to this methodology may make SDG claims if relevant monitoring parameter(s) is included in the monitoring plan to demonstrate and confirm the project's contributions to SDGs. See parameter SDWS 19.	The project activity intends to claim contribution towards SDG 1, 3, 5, 6, 7, 13 and 15. The relevant monitoring parameters have been included in the monitoring plan.

B.3. Project boundary

As per the methodology, the project boundary includes (i) the physical, geographical sites of the low- or zero-greenhouse gas emitting technologies to treat/supply safe drinking water installed by the project activity, (ii) any back-up engines or other equipment using fossil-fuel related to the low-greenhouse gas emitting technologies, (iii) the electricity grid, in the case electricity is used by the project and (iv) the household, commercial and institutional buildings where the end users of safe water provided by the project are located.

The Nazava water filter reduces the use and demand of non-renewable biomass that would have been used to boil the water as a means of water purification. The Nazava water filter requires no energy input. All Nazava water filters disseminated under the proposed project are located within Kenya. Refer to section A.2 for more details. The sources and gases included in the project boundary are shown in Table 5 below.

Table 5: The sources and gases included in the project boundary

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	Thermal Energy Need	CO ₂	Yes	The major source of emissions in the baseline due to burning of firewood.
		CH ₄	No	Excluded for simplification, this is conservative.
		N ₂ O	No	Not applicable for the project activity.
Project scenario	Thermal Energy Need	CO ₂	Yes	Included but is not very significant for the project activity.
		CH ₄	No	Not applicable for the project activity.
		N ₂ O	No	Not applicable for the project activity.

B.4. Establishment and description of baseline scenario

Under the applied Methodology for Emission Reduction from Safe Drinking Water Supply Version 1.0, the project objective is to reduce or avoid the use and demand of non-renewable biomass that would have been used to boil unsafe drinking water in the baseline and to supply drinking water that is safe. The general baseline scenario is that the users of the filters would have boiled water in absence of the project activity.

1. Pre-project Scenario

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Globally, access to microbiologically safe drinking water is a problem in most developing and underdeveloped countries including Kenya. The most popular method for treating household water (HWT) is boiling with estimated 1.2 billion users globally¹⁸. According to the Kenya Demographic and Health Survey Data collected in 2022, 21.6% of urban

households and 19.9% of rural households treat their water by boiling as shown in Figure 5 below. In addition, the report shows that at least 65.9% and 61.3% of urban

¹⁸ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5817760/>

and rural households respectively, do not treat water and consuming raw water direct from their sources¹⁹.

Table 16.5 Treatment of household drinking water

Percentage of de jure population using various methods to treat drinking water, and percentage using an appropriate treatment method, according to residence, according to background characteristics, Kenya DHS 2022

Background characteristic	Boil	Bleach/ chlorine added	Strain through cloth	Ceramic, sand or other filter	Solar disinfection	Let it stand and settle	Cover the water container	Other	Don't know	No treatment	Percentage using an appropriate treatment method ¹	Number of persons
Residence												
Urban	21.6	14.4	0.6	1.3	0.0	0.5	0.8	0.1	0.0	65.9	33.5	47,730
Rural	19.9	17.6	2.4	1.1	0.1	2.1	2.6	0.1	0.0	61.3	35.4	94,296
Source of drinking water¹												
Improved	21.1	16.2	1.5	1.2	0.0	1.5	1.9	0.1	0.0	62.8	35.0	108,706
Unimproved	18.9	15.4	3.0	0.8	0.1	2.3	3.7	0.1	0.1	63.9	32.2	10,788
Surface	18.0	18.7	2.9	1.1	0.1	1.7	1.5	0.0	0.0	62.8	34.4	22,532
Wealth quintile												
Lowest	10.8	11.3	2.2	0.8	0.1	1.4	1.5	0.0	0.1	76.0	21.2	28,409
Second	17.2	19.1	3.2	1.1	0.0	2.5	2.9	0.0	0.0	61.1	34.6	28,408
Middle	22.2	18.6	2.1	1.0	0.0	1.9	2.7	0.1	0.0	58.8	38.5	28,404
Fourth	25.6	16.1	1.0	0.9	0.0	1.5	1.9	0.0	0.1	59.6	38.9	28,406
Highest	26.5	17.3	0.6	1.9	0.0	0.5	0.7	0.2	0.0	58.9	40.4	28,400
Total	20.5	16.5	1.8	1.1	0.0	1.6	2.0	0.1	0.0	62.9	34.7	142,026

Note: Respondents may report multiple treatment methods so that the sum of treatment may exceed 100%.

¹ Appropriate water treatment methods are boiling, bleaching, filtering, and solar disinfecting.

Figure 5: Drinking water treatment methods according to Kenya DHS 2022¹⁰.

Other water treatment methods identified include use of bleach/chlorination, straining through cloth, and solar disinfection but with little usage as shown in Figure 5 above because of the need for maintenance of equipment and continuous purchase of disinfectants.

Based on the data from Kenya demographic and health survey 2022, boiling is the most used means of treating drinking water.

2. Raw Data and Suppressed Demand

The baseline scenario for this project activity is identified as provided under section 3.4.1 of the methodology. It states that for users that boil unsafe water for drinking in the pre-project scenario, the general baseline scenario is that users would have boiled water for drinking in the absence of the project activity using non-renewable biomass i.e., wood and charcoal.

¹⁹ <https://dhsprogram.com/pubs/pdf/FR380/FR380bis.pdf>

The biomass used in the project area baseline scenario can be classified as non-renewable because most of the material is obtained from forests that remain to be forest land, woody and non-woody biomass from crop lands and grasslands, biomass residues and sometimes from non-fossil fraction of industrial or municipal waste. To quantify the parameter f_{NRB} the PP has opted to use a conservative approach by applying CDM-MP92-A07 Default Values. The f_{NRB} default value for Kenya is 45% for 2020-2030.

CDM-MP92-A07 has been used instead of CDM-Tool 30 since it offers grounded improved data, provides an opportunity for harmonization across the clean cooking carbon ecosystem and allows for more granular and accurate accounting of the climate impacts of clean cooking projects.

CDM-MP92-A07 default values have been established for diverse administrative units including districts, counties, provinces, and states using the latest available data on woody biomass supply and demand with MoFuSS. MoFuSS runs simulations of wood supply and demand, which allows users to compare intervention and non-intervention scenarios while accounting for variables like population growth, urbanization, and land cover change. MoFuSS is built with freely available software with open-source code, making it transparent and accessible. It is a bottom-up spatial model that can be aggregated to any level, allowing for f_{NRB} estimates to be made for any administrative unit such as districts, counties, states, and provinces, as well as customized regions that cut across administrative boundaries. The UNFCCC-commissioned model relies on harmonized global datasets that are regularly updated, which facilitates periodic updates to f_{NRB} estimates⁹.

The methodology also provides that for household end-users currently drinking unsafe water, the principles of suppressed demand are applied, such that the general baseline scenario is assumed to be that users would have boiled water for drinking in the absence of the project activity, see section 3.4.2. However, the suppressed demand baseline does not apply to a large-scale project. A large-scale project can only account for the users that boil water in the pre-project scenario. The suppressed demand baseline may be applied for institutional end-users, except where the institution is connected to a public distribution network (PDN) that supplies safe drinking water –

unless justified that supplied water quality doesn't meet safe water definition (parameter SDWS 12).

Furthermore, in line with the paragraph 3.4.2, for the case of end-users currently drinking unsafe water because e.g. energy poverty barriers result in less than the minimum required amount of safe drinking water, the principles of suppressed demand are applied and the baseline is set as a proxy technology (water boiling of an adequate quantity of drinking water) based on the standard of living achieved by peers (adequate supply of safe drinking water), see section 3.4.3.

Selection and justification of the baseline scenario

As per paragraph 3.5.1 in the methodology, the baseline survey documented the drinking water sources and/or treatment technologies available and used, the baseline stove or water boiling technologies and technologies' thermal efficiency and the baseline cooking fuels used and/or fuels used for water boiling in the project boundary.

Baseline Survey

In accordance with section 4.2 of the methodology, the project developer conducted the baseline surveys. The aim was to collect data and to quantify parameters of interest used to calculate baseline emissions and accurately determine the baseline situation.²⁰

The project developer conducted baseline survey taking samples in accordance with the "Sampling and surveys for CDM project activities and program of activities (Version04)"²¹.

Baseline survey representatives

As per "Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)" version 4.0, the baseline survey requires in person interviews with a robust sample of end users without project technologies that are

²⁰ <https://cleancooking.org/news/unfccc-posts-fnrb-update-research-for-public-comment/>

²¹ https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20151023152925068/Meth_G_C48_%28ver04.0%29.pdf

representative of end users targeted in the project activity. The baseline survey is conducted for each baseline scenario using representative and random sampling. The baseline survey was conducted within the applicable geographical area i.e. throughout Kenya and an appropriate sampling criterion was determined to ensure representativeness.

General requirements for sampling

In line with the applied methodology section 4.2.3, the following sample size guidelines shown in Table 6 below were applied during the baseline and project survey.

Table 6: Baseline and project surveys sample size guidelines

Group size	Minimum sample size
< 300	30 of population size, whichever is smaller
300 to 1000	10% of group size
> 1000	100

According to the "2019 Kenya Population and Housing Census Volume I: Population by County and Sub-County", there are 12,143,913 households in Kenya²². Therefore, the sample size was considered to be more than 100.

The baseline surveys were conducted from 15th January 2024 to 19th March 2024 for HWT and 20th May 2024 to 22nd May 2024 for the IWT by the project developer with assistance of graduates in various counties.

1. Sample Design

The sample design of the baseline surveys was drawn from the 'Guideline of Sampling and surveys for CDM project activities and program of activities' version 04¹². In addition to several best-practice examples covering large and small-scale project activities and PoAs, the guideline describes common types of sampling approaches

²²

<https://www.knbs.or.ke/?wpdmpo=2019-kenya-population-and-housing-census-volume-i-population-by-county-and-sub-county>

and includes a recommended outline for a sampling plan, recommended practices for unbiased estimates of sampled parameters, and recommended evaluation criteria for designated operational entity (DOE) validation.

The simple random sampling was adopted for the baseline surveys due to its conceptual straightforwardness and ease of implementation. Its simplicity also makes analysis of the data collected relatively easy. The project area was divided into counties i.e. 47 counties and in each county at least 7 random samples were identified for survey. It was assumed the population from each county had homogeneous characteristics.

2. Questionnaires

For the baseline survey, two questionnaires were used, one for the HWT baseline survey and the second one for the IWT baseline survey. The HWT questionnaires was prepared as per the gold standard tools 'BS SURVEY QUESTIONNAIRES HWT'²³ while the IWT questionnaire was according to 'BS SURVEY QUESTIONNAIRES CWS'²⁴. Both questionnaires were uploaded on the Epicollect5 data collection app, the platform which was used for the data collection²⁵.

3. Conducting of Baseline Surveys

The HWT and IWT were both conducted separately with the help of graduates in the different counties in Kenya.

The HWT baseline surveys were conducted in all the 47 counties in Kenya with an average of 7 surveys per county. The HWT pretest surveys were done in Uasin Gishu, Nandi and Elgeyo Marakwet counties by the project developer between 15th January 2024 and 18th January 2024.

For the rest of the counties the surveys were conducted with the help of graduates who were hired from the remaining 44 counties. The graduates underwent online training prior to conducting the baseline surveys. During the online training each

²³ <https://globalgoals.goldstandard.org/429-4-sdws-bs-survey-questionnaires-hwt/>

²⁴ <https://globalgoals.goldstandard.org/429-3-sdws-bs-survey-questionnaires-cws/>

²⁵ <https://five.epicollect.net/>

surveyor filled in one survey based on their own household to ensure that they understood the questions. From the 44 counties an average of 7 households were identified randomly and interviewed. However, data from 3 counties i.e. Lamu, Wajir and Mandera did not meet the required standard and were, therefore, excluded during the data analysis. In total the data analyzed was from 330 households from 44 counties in Kenya.

For the IWT, the baseline surveys were conducted from 8 regions which were identified as the regions with the most customers currently. The baseline survey was conducted with the help of graduates hired from 8 different regions. Before the survey, the graduates underwent online training using google meet platform. Prior the survey, pre-test surveys were done in Kisii and Embu Counties with the help of graduates on 4th April 2024. During the test survey and the main survey for each county 3 schools were randomly identified and interviewed.

Data Collected

The data collected is specific to the characteristics of each baseline scenario and was tailored accordingly. The sampling questionnaire was tailored to gather the following:

Table 7: Information gathered during Baseline Survey

1. The users' follow information	
Requirement	Applicability of the requirement
The household/institution location and address	- Name of county and village. - The GPS location updated using Epicollect5 data collection app.
Contact details	Telephone number of the interviewee to be used in case of a follow up.
2. The users' characteristics	

The number of people using the baseline technology	A question enquiring the number of persons using the technology in the household/institution interviewed.
The type of user	Confirmation if the household or institution is full time or part time users of the baseline technology.
3. Baseline water sources	
The water sources	- The main source of drinking water both during the dry season and during the rainy season. - The total time consumed to collect the water from the source and back in cases where water is not in dwelling.
4. Baseline water treatment technology and fuels	
The baseline treatment method	- Enquire if the household/institution treat their drinking water. - The type of treatment method used to treat the drinking water at baseline scenario.
Types of baseline stove technologies used and estimated frequency of use.	In cases where the users treat their water by boiling, assess the type of stove used and the usage frequency.
Types of baseline fuels used and estimated proportions used	Enquire about the type of baseline fuel used to boil the drinking water both in dry and rainy seasons.

The source of baseline fuels and cost	- Enquire about the source of fuel either purchased or collected. - The cost of fuel in cases where the fuel is bought. - The time consumed to fetch the fuel
5. Sustainable development assessment	
Level of smoke in the households	For users boiling the water assess the baseline smoke levels
Incidences of waterborne and indoor air pollution diseases.	Specific questions to know whether the household has suffered from illnesses related to water contamination and indoor air pollution in the last 30 days.
Participation in water, hygiene and sanitation improvement trainings, workshops, or seminars	A question enquiring if the members of the household or institution have participated in awareness training regarding water treatment and sanitation.

Baseline survey results

1. Household Water Treatment Baseline Survey

Average household size

A total of 330 households participated in the baseline survey, with the total numbers of persons from the sampled households being 1809 individuals. The number of individuals per household can be calculated as $1809/330=5.48$ individuals/household. This parameter is used to calculate the ex-ante of volume of drinking water per person per day (QPW_p) which belongs to the parameter ID in SDWS24 in section B.7.1.

Water sources and amount for drinking

Access to clean drinking water is a major problem in many parts of Africa, including Kenya. As already stated in section A.1, in Kenya, most people do not have access to safe drinking water at the point of use. The Kenya Demographic and Health Survey

(KDHS) conducted in 2022 shows that 20% of households depend on water sources that are not safe for direct consumption²⁶. The households either use surface water (13%) or water from an unimproved source (7%). In rural areas, 30% use water from surface water (21%) or an unimproved source (9%). The baseline survey highlighted that during the dry season 49.39% of households used improved sources like piped water (27.27%), public tap supply (9.39%), protected wells/springs (6.97%), packaged water (3.03%) and rainwater (2.73%). However, 50.61% of households relied on unimproved sources, with 31.52% using unprotected wells/springs, 4.55% using delivered water using cart and tanker and 14.55% using surface water. Figure 6 below shows the main water sources during the dry and rainy season as per the baseline survey.

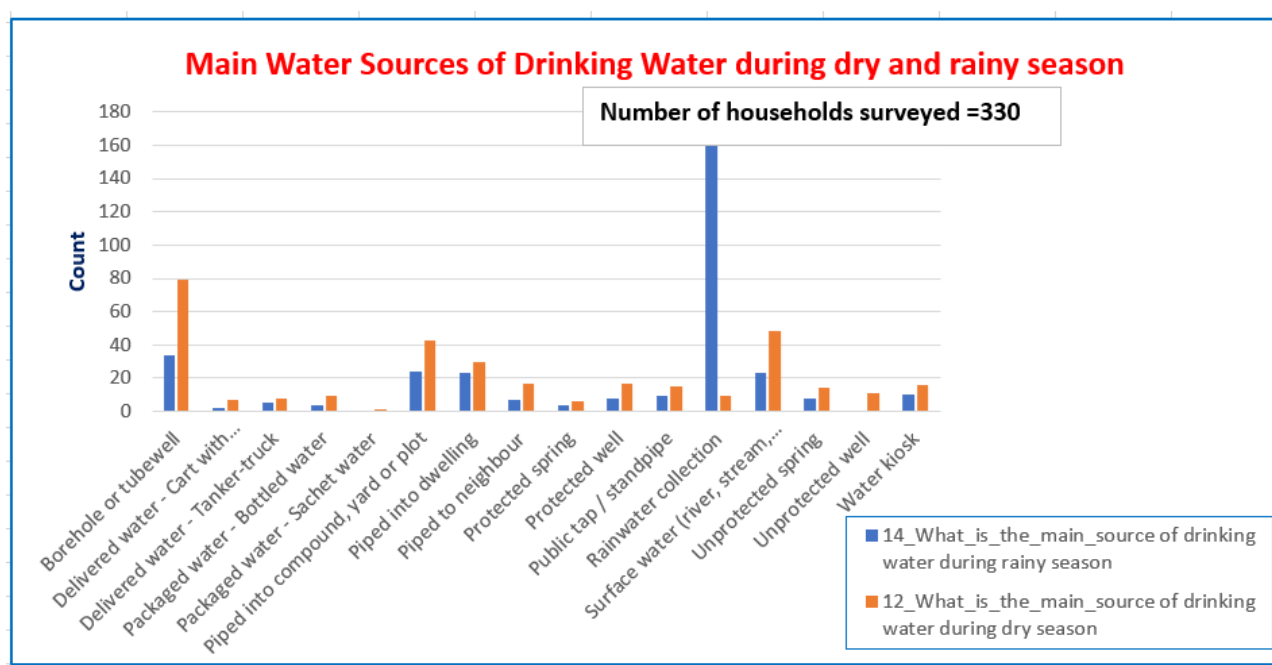


Figure 6: Main sources of drinking water during dry and rainy season as per the baseline survey.

Practices of boiling water or drinking unsafe water

In accordance with KDHS data, a significant proportion of both urban (65.9%) and rural (61.3%) households refrain from using any method for treating drinking water. Among the subset of households that do treat their water, boiling is the most common method, namely 21.60% for urban households and 19.90% of rural households boil

²⁶ <https://dhsprogram.com/pubs/pdf/FR380/FR380bis.pdf>

water prior to drinking. during the baseline survey These observations align with the baseline survey as shown in figure 7 below, which indicated that among the 51.21% of households purifying their drinking water, the majority 72.19% of the households relied on boiling as their primary water treatment method. The other households rely on other treatment methods with 25.44% using chlorine/bleach, 1.18% letting the water stand, 0.59% strain water through using a cloth and 0.59% use water filter (ceramic, sand, composite, reverse osmosis, etc). These findings correspond with the general baseline scenario that users would have boiled water for drinking in the absence of the project activity.

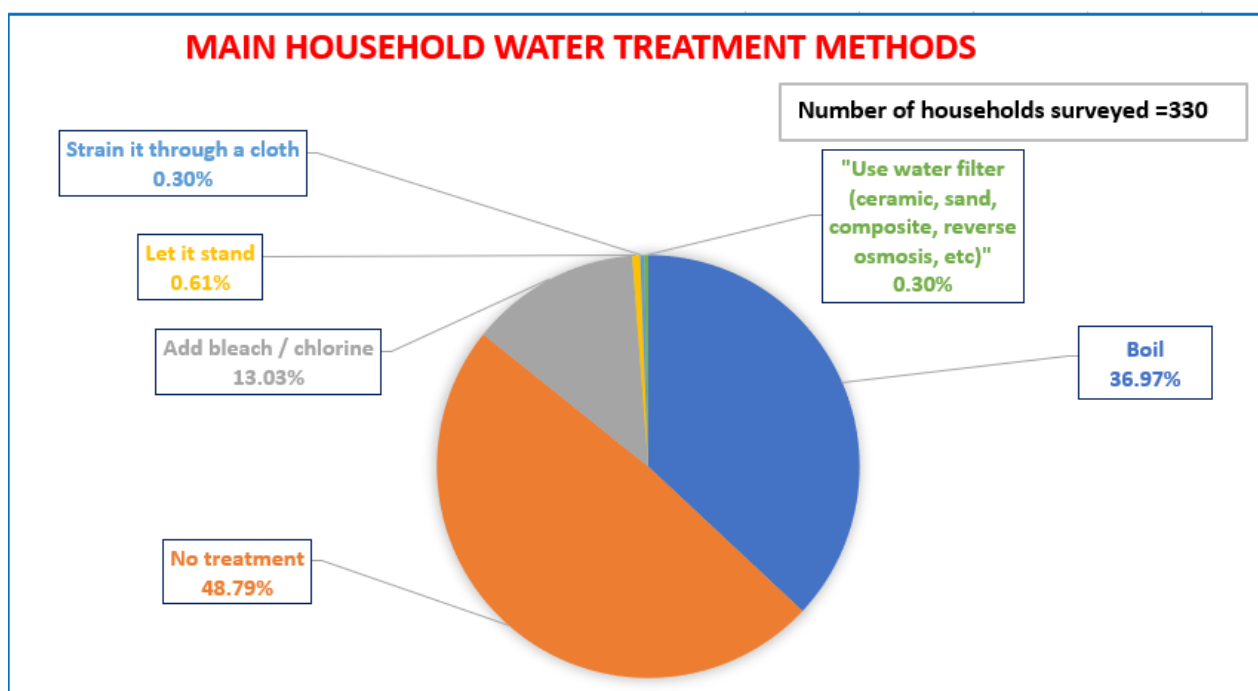


Figure 7: Main households drinking water treatment methods from the baseline survey.

B.5. Demonstration of additionality

Section 3.3 of the applicable methodology shows that the project developer shall demonstrate that the project could not or would not take place without carbon finance.

The major project's financial requirements will be experienced during the development and implementation due to the manufacturing and shipping costs of the filters to the host country, Kenya, as well as distribution costs. Over the project life cycle of 10+ years, continued expenditures shall be accrued from the regular hygiene campaigns

with the households and institutions to conduct any necessary household retraining on proper filter usage, handle maintenance issues, and reinstall the filters properly.

In addition, the project developer is required to demonstrate additionality by conforming to additionality requirements set under section 3.3.2 of the methodology. Section 4.1.9 of 'GS4GG Community Services Activity Requirements' states that "Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of Design Certification²⁷:"

- a) Positive list (Annex B of this document)
- b) Projects located in LDC, SIDS, LLDC4
- c) Microscale projects

As per Annex-B Positive list under 'GS4GG Community Services Activity Requirements' the project meets the criteria outlined in section 1.1.3 *"Project activities that involve technologies and/or practices providing thermal energy to the user that have less than 20% adoption rate among the target users. The most recent available data on adoption rates shall be used to demonstrate compliance with the 20 percent threshold in the target geographical area. In no case shall data be used if older than three years from the date of commencement of validation of the project activity"*.

The project can prove that currently the project technology has an adoption rate of less than 20% in the host country, Kenya as discussed below.

1. Target project geographical area

The 'GS4GG Community Services Activity Requirements' requires that the "Applicable geographical area – should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country".

The target project geographical area is 47 counties out of 47 counties in Kenya. The baseline survey was conducted in all the 47 counties however 3 counties ie. Lamu,

²⁷ <https://globalgoals.goldstandard.org/201-ar-community-services-activity-requirements/>

Wajir and Mandera were excluded from the baseline survey data analysis since the data did not meet the required standard. The baseline scenario which determined the use of boiling of water as the major water treatment method, was found to be uniform across the 44 counties survey as shown in Figure 8 below, the counties showing high numbers had more samples than the rest.

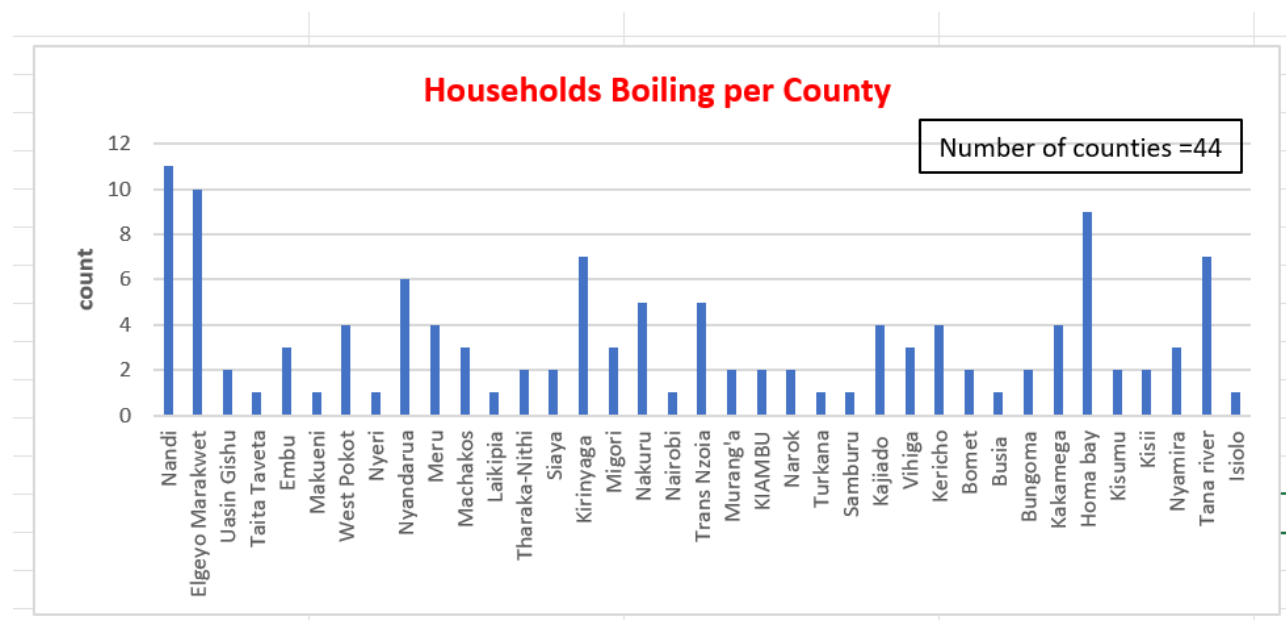


Figure 8: The households boiling water per county

2. Adoption rates

The 'GS4GG Community Services Activity Requirements' requires the project to demonstrate that the project technology in the baseline scenario is adopted by less than 20% of the population in the project's target geographical area and the demonstration must rely on existing credible sources of information. Based on the recent Kenya Demographic and Health Survey conducted in 2022 by the Kenya National Bureau of Statistics, less than 20% of households use decentralized point of use water treatment technologies as shown in Figure 9 below. The KDHS data shows that 1.1% of the sampled households that used ceramic, sand and other filters stood for water treatment by 2022 with 1.3% and 1.1% in urban and rural households, respectively.

Table 16.5 Treatment of household drinking water

Percentage of de jure population using various methods to treat drinking water, and percentage using an appropriate treatment method, according to residence, according to background characteristics, Kenya DHS 2022

Background characteristic	Boil	Bleach/ chlorine added	Strain through cloth	Ceramic, sand or other filter	Solar disinfection	Let it stand and settle	Cover the water container	Other	Don't know	No treatment	Percentage using an appropriate treatment method ¹	Number of persons
Residence												
Urban	21.6	14.4	0.6	1.3	0.0	0.5	0.8	0.1	0.0	65.9	33.5	47,730
Rural	19.9	17.6	2.4	1.1	0.1	2.1	2.6	0.1	0.0	61.3	35.4	94,296
Source of drinking water¹												
Improved	21.1	16.2	1.5	1.2	0.0	1.5	1.9	0.1	0.0	62.8	35.0	108,706
Unimproved	18.9	15.4	3.0	0.8	0.1	2.3	3.7	0.1	0.1	63.9	32.2	10,788
Surface	18.0	18.7	2.9	1.1	0.1	1.7	1.5	0.0	0.0	62.8	34.4	22,532
Wealth quintile												
Lowest	10.8	11.3	2.2	0.8	0.1	1.4	1.5	0.0	0.1	76.0	21.2	28,409
Second	17.2	19.1	3.2	1.1	0.0	2.5	2.9	0.0	0.0	61.1	34.6	28,408
Middle	22.2	18.6	2.1	1.0	0.0	1.9	2.7	0.1	0.0	58.8	38.5	28,404
Fourth	25.6	16.1	1.0	0.9	0.0	1.5	1.9	0.0	0.1	59.6	38.9	28,406
Highest	26.5	17.3	0.6	1.9	0.0	0.5	0.7	0.2	0.0	58.9	40.4	28,400
Total	20.5	16.5	1.8	1.1	0.0	1.6	2.0	0.1	0.0	62.9	34.7	142,026

Note: Respondents may report multiple treatment methods so that the sum of treatment may exceed 100%.

¹ Appropriate water treatment methods are boiling, bleaching, filtering, and solar disinfecting.

Figure 9: Drinking water treatment methods in Kenya according to Kenya Demographic Health Survey

B.5.1 Prior Consideration

As per GS4GG rule for retroactive projects, project documents need to be submitted to GS within one year of the project start date to meet prior consideration. In this case, the start date is 19/05/2023 and Nazava Water Filters Ltd. has submitted the initial project documents to GS on 19/05/2024. Therefore, the project meets the prior consideration requirements.

B.5.2 Ongoing Financial Need

The main goal for the project is to offer sustainable provision of safe and clean drinking water over the long term to households and institutions, which necessitates significant ongoing financial support which will only be accomplished through carbon financing.

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Throughout the project cycle, an increased number of households and institutions will have access to safe drinking water and the carbon financing will support the project to meet various expenditures including:

1. Project monitoring and evaluation costs to ensure continuous use of water filters to offer safe drinking water and high impact in terms of the health outcomes in the community.
2. Staff salaries, this will ensure financial sustainability for Nazava Water Filters Ltd. and ensure the organization's perpetuity to provide more households and institutions with safe drinking water as well as to change and repair water filters of existing customers.
3. Costs of expansion to all sub counties in the various counties to increase project coverage.
4. Costs of research and development towards improving the water filters quality and cost reduction improvements to decrease the selling price to the end consumers especially for low-income households whose average income is less than \$5/day.
5. The funds from carbon credits will facilitate conducting evaluations of the social-economic impacts that the usage of the Nazava filters is generating.

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the SDGs

Table 8: The project's SDG's Targets and Impact

SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	SDG IMPACT
		INDICATOR (PROPOSED OR SDG INDICATOR)
SDG 13: Climate Action (mandatory)	13.2: Integrate climate change measures into national policies, strategies, and planning.	13.2.1: Total amount of CO2e emissions reduced by the project per annum
SDG 1: No Poverty	1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1: Proportion of population living in households with access to basic services

SDG 3: Good Health and Well Being	3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	3.9.1: Mortality rate attributed to household and ambient air pollution. 3.9.2: Mortality rate attributed to unsafe water, unsafe sanitation, and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)
SDG 5: Gender Equality	5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	5.4.1: Proportion of time spent on unpaid domestic and care work, by sex, age, and location
SDG 6: Clean Water and sanitation	6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1: Proportion of population using safely managed drinking water services
SDG 7: Affordable and Clean Energy	7.1: By 2030, ensure universal access to affordable, reliable, and modern energy services.	7.1.2: Proportion of population with primary reliance on clean fuels and technology.
SDG 15: Life on land	15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.	15.2.1: Progress towards sustainable forest management.

B.6.1 Explanation of methodological choices/approaches for estimating the SDG Impact

SDG 1: No Poverty

Applied methodology / approach	Equation / calculation
--------------------------------	------------------------

1.4.1: Proportion of population living in households with access to basic services. Approach: Total number of household water filters distributed / installed under the project.	Household water filters distribution / installation records Net Benefit (SDG 1) = $ABS_{Project} - ABS_{Baseline}$ Where: <table> <tr> <td>$ABS_{baseline}$</td><td>Access to basic services (number of premises with at least one household water filter distributed / installed in baseline).</td></tr> <tr> <td>$ABS_{project}$</td><td>Access to basic services (number of premises with at least one household water filter distributed / installed under the project).</td></tr> </table>	$ABS_{baseline}$	Access to basic services (number of premises with at least one household water filter distributed / installed in baseline).	$ABS_{project}$	Access to basic services (number of premises with at least one household water filter distributed / installed under the project).
$ABS_{baseline}$	Access to basic services (number of premises with at least one household water filter distributed / installed in baseline).				
$ABS_{project}$	Access to basic services (number of premises with at least one household water filter distributed / installed under the project).				

SDG 3: Good Health and Well Being

Applied methodology / approach	Equation / calculation
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3.9.1: Mortality rate attributed to household and ambient air pollution. 3.9.2: Mortality rate attributed to unsafe water, unsafe sanitation, and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for all (WASH) servies). Approach: % of users reporting reduction in incidence of diarrhea and water borne diseases etc. after shifting to the household water filter.	Ex-post Monitoring Surveys Records Net Benefit (SDG 3) = $IH_{USERS,Project} - IH_{USERS,Baseline}$ Where: <table> <tr> <td>$IH_{USERS,Baseline}$</td><td>% of users reporting reduction in incidence of waterborne diseases or improvement in indoor air quality in baseline.</td></tr> <tr> <td>$IH_{USERS,Project}$</td><td>% of users reporting reduction in incidence of waterborne diseases or improvement in indoor air quality after shifting to the project.</td></tr> </table>	$IH_{USERS,Baseline}$	% of users reporting reduction in incidence of waterborne diseases or improvement in indoor air quality in baseline.	$IH_{USERS,Project}$	% of users reporting reduction in incidence of waterborne diseases or improvement in indoor air quality after shifting to the project.
$IH_{USERS,Baseline}$	% of users reporting reduction in incidence of waterborne diseases or improvement in indoor air quality in baseline.				
$IH_{USERS,Project}$	% of users reporting reduction in incidence of waterborne diseases or improvement in indoor air quality after shifting to the project.				

SDG 5: Gender Equality

Applied methodology / approach	Equation / calculation				
5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age, and location. Approach: average savings in time per week.	Ex-post Monitoring Surveys Records Net Benefit (SDG 5) = $AST_{Project} - AST_{Baseline}$ Where: <table> <tr> <td>$AST_{Baseline}$</td><td>Average savings in time in baseline.</td></tr> <tr> <td>$AST_{Project}$</td><td>Average savings in time after shifting to the project.</td></tr> </table>	$AST_{Baseline}$	Average savings in time in baseline.	$AST_{Project}$	Average savings in time after shifting to the project.
$AST_{Baseline}$	Average savings in time in baseline.				
$AST_{Project}$	Average savings in time after shifting to the project.				

SDG 6: Clean Water and Sanitation

Applied methodology / approach	Equation / calculation				
6.1.1 Proportion of population using safely managed drinking water services Approach: total number of household water filters distributed / installed provide safe drinking water quality.	Ex-post Monitoring Surveys Records Net Benefit (SDG 6) = $SWQ_{Project} - SWQ_{Baseline}$ Where: <table> <tr> <td>$SWQ_{Baseline}$</td><td>% users reporting safe water quality after shifting in baseline.</td></tr> <tr> <td>$SWQ_{Project}$</td><td>% users reporting safe water after shifting to the project.</td></tr> </table> The project outcome of SDG 6 can be calculated as follows: $SWQ_{Project} = N_{p,y} * (1 - Cb)U_{p,y} * M_{q,y}$	$SWQ_{Baseline}$	% users reporting safe water quality after shifting in baseline.	$SWQ_{Project}$	% users reporting safe water after shifting to the project.
$SWQ_{Baseline}$	% users reporting safe water quality after shifting in baseline.				
$SWQ_{Project}$	% users reporting safe water after shifting to the project.				

SDG 7: Affordable and Clean Energy

Applied methodology / approach	Equation / calculation				
7.1.2 Proportion of population with primary reliance on clean fuels and technology. Approach: % of operational household water filters distributed.	Household water filters distribution records + Ex-post Monitoring Surveys Records. Net Benefit (SDG 7) = $AAC_{Project} - AAC_{Baseline}$ Where: <table> <tr> <td>$AAC_{Baseline}$</td><td>Access to affordable and clean energy (% of operating household water filters in baseline).</td></tr> <tr> <td>$AAC_{Project}$</td><td>Access to affordable and clean energy (% of operating household water filters after shifting to the project).</td></tr> </table>	$AAC_{Baseline}$	Access to affordable and clean energy (% of operating household water filters in baseline).	$AAC_{Project}$	Access to affordable and clean energy (% of operating household water filters after shifting to the project).
$AAC_{Baseline}$	Access to affordable and clean energy (% of operating household water filters in baseline).				
$AAC_{Project}$	Access to affordable and clean energy (% of operating household water filters after shifting to the project).				

SDG 8: Decent work and economic growth

Applied methodology / approach	Equation / calculation				
8.5.1: Average hourly earnings of female and male employees by occupation, age and persons with disabilities. Approach: total number of employees by employment contract by gender.	Nazava database Net Benefit (SDG 8) = $GPG_{Project} - GPG_{Baseline}$ Where: <table> <tr> <td>$GPG_{Baseline}$</td><td>Number of employees employed in baseline.</td></tr> <tr> <td>$GPG_{Project}$</td><td>Number of employees employed after shifting to the project.</td></tr> </table>	$GPG_{Baseline}$	Number of employees employed in baseline.	$GPG_{Project}$	Number of employees employed after shifting to the project.
$GPG_{Baseline}$	Number of employees employed in baseline.				
$GPG_{Project}$	Number of employees employed after shifting to the project.				

SDG 15: Life on Land

Applied methodology / approach	Equation / calculation				
15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. Approach: total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology.	Ex-post Monitoring Surveys Records Net Benefit (SDG 15) = $LL_{Project} - LL_{Baseline}$ Where: <table> <tr> <td>$LL_{Baseline}$</td><td>Amount of non-renewable fuels collected in baseline.</td></tr> <tr> <td>$LL_{Project}$</td><td>Amount of non-renewable fuels collected in project.</td></tr> </table>	$LL_{Baseline}$	Amount of non-renewable fuels collected in baseline.	$LL_{Project}$	Amount of non-renewable fuels collected in project.
$LL_{Baseline}$	Amount of non-renewable fuels collected in baseline.				
$LL_{Project}$	Amount of non-renewable fuels collected in project.				

B.6.2 Data and parameters fixed ex ante

a. Related to water quality.

Data/parameter	SDWS 2 Project technology description
Unit	NA
Description	The detailed description of the planned project technology shall include as a minimum: <u>HWT and IWT:</u> - Manufacturer name - Product name - Technology type - Performance target classification as per the WHO International Scheme to Evaluate Household Water Treatment Technologies or proof of compliance with an applicable national standard or guideline for drinking water treatment technologies
Source of data	<u>HWT and IWT:</u> any of the following sources shall be used: - Manufacturer specifications. - Third-party certification by a qualified entity, for example recognized certification agency by National/International standard body. - Commercial guarantee.
Value(s) applied	<u>HWT and IWT:</u> - Manufacturer name: Nazava Water Filters Ltd. - Product name: Nazava Water Filter. - Technology type: ceramic membrane filter impregnated with Nano silver and filled with activated carbon. - Performance target classification: 1-star WHO certified as per the WHO International Scheme to Evaluate Household Water Treatment Technologies and certified by Kenya Bureau of Standards (KEBS).

Choice of data or Measurement methods and procedures	NA
Purpose of data	NA
Additional comment	This parameter is fixed ex-ante and shall be updated at CP renewal. The test results done by the Kenya Bureau of Standards and WHO and the certification issued has been provided.

Data/parameter	SDWS 4 Regulatory framework for safe water supply.
Unit	NA
Description	List and provide a summary of any national, sub-national and local regulations or guidance for safe drinking water supply, operation, and maintenance, including any tariff requirements. Describe how the project complies with the regulatory framework. Update at the start of each crediting period.
Source of data	National, sub-national and local authorities.
Value(s) applied	
Choice of data or Measurement methods and procedures	
Purpose of data	
Additional comment	This parameter is fixed ex-ante and shall be updated at CP renewal.

Data/parameter	SDWS 5 Water sources in the project boundary
Unit	NA

Description	Identify the water sources in the project boundary, and identify whether they are used for drinking water, and for all that are used for drinking water, classify them as improved and unimproved water source, in line with water source section 1 Definition 1 above. Refer to Annex 2 for further information. Undertake at the start of each crediting period and at the time of project design change approval where the project boundary is being revised/expanded to new areas.
Source of data	Any of the following sources shall be used: - baseline study, - credible published literature for project region, - studies by academia, NGOs, or multilateral institutions, or - official government publications or statistics. Source applied must not be more than 3 years old.
Value(s) applied	According to section 1 Definition 1 the following distinction is made between improved and unimproved water sources: <u>Improved water sources:</u> piped water into dwelling, yard or plot, public tap or standpipe, tube well or borehole, protected dug well, protected spring, rainwater collection. <u>Unimproved water sources:</u> unprotected dug well, unprotected spring, cart with small tank or drum provided by water vendor, tanker truck provision of water, surface water (river, dam, lake, pond, stream, canal, irrigation channel), bottled water.
Choice of data or Measurement methods and procedures	
Purpose of data	For parameter C_0 calculation.
Additional comment	This parameter is fixed ex-ante and shall be updated at CP renewal.

b. Related to emission reductions.

Data/parameter	SDWS 6 Stove technologies used in the project boundary
Unit	NA
Description	The proportion of different stove types used in premises in the geographical area of the project. If the project covers different types of end-users' premises (e.g. households, institutions), then the stove technologies should be determined for each premises type. Undertake at the start of each crediting period.
Source of data	Any of the following sources shall be used: - baseline survey, - credible published literature for project region, - studies by academia, NGOs, or multilateral institutions, or - official government publications or statistics. Source applied must not be more than 3 years old.
Value(s) applied	
Choice of data or Measurement methods and procedures	
Purpose of data	Calculation of baseline emissions.

Additional comment	Applies to all project technology types. The classification shall consider at least the following categories of stove types: - Three-stone fire or conventional system for woody biomass lacking improved combustion air supply mechanism and flue gas ventilation system. - Other conventional systems using woody biomass. - Improved cookstoves ($\geq 20\%$ thermal efficiency); and - Fossil fuel combustion systems. If the project or VPAs are implemented in different geographical locations, then the proportion of different stove types shall be defined for each location, where relevant.
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Data/parameter	SDWS 7 Expected technical life of project technology
Unit	Treatment volume or operational hours or time period.
Description	The expected technical life of an individual project technology shall be defined in the PDD. The details include both technology/device life and filter life if a filter is used and it is replaceable.
Source of data	<u>HWT/IWT:</u> any of the following sources shall be used: - Manufacturer specifications. - third-party certification by a qualified entity, for example recognized certification agency by National/International Standard body. - Commercial guarantee.

Value(s) applied	The expected technical life of the Nazava Water Filter is 3 years (or 7000 liters). Together with the Nazava Water Filter, the indicator is equipped. With the indicator, users would know when the filter candle needs to be replaced by measuring the diameter of the filter candle. It will be replaced when the diameter is smaller than 5 cm or the indicator fits around the filter candle. The Nazava Water Filters are sold through a network of resellers, directly through Jumia or via our office so end users can obtain replacement filters at any time. Besides, by using the project database, the project participant shall regularly check a representative sample of appliances to ensure that the appliances are still operational as part of the monitoring procedure. The emission reduction shall only be claimed for the operational appliances.
Choice of data or Measurement methods and procedures	NA
Purpose of data	NA
Additional comment	Applies to all project technology types. If the expected technical life of the project technology is shorter than the crediting period, describe the measures to ensure that end users are provided replacement systems of comparable quality, e.g., replace with comparable or better technology, retrofit with performance guarantee, etc. This applies to both new and rehabilitated technology. The project shall ensure that the units are replaced with systems of comparable quality or retrofitted at the end of their technical life in order to continue claiming emission reductions. If no replacement or retrofitting is provided, emission reduction claims are limited to the expected technical life.

Data/parameter	SDWS 8 x_f
Unit	Percentage of fuel f used in target population.
Description	The proportion of each different cooking fuel f used in the project boundary by end-users: - % among the target population if a single fuel is used for water boiling. - weighted average on energy basis, if a multifuel situation exists within premise.
Source of data	Any of the following sources shall be used: - baseline survey, - credible published literature for projection region, - studies by academia, NGOs, or multilateral institutions, or - official government publications or statistics. Source applied shall not be more than 3 years old.
Value(s) applied	
Choice of data or Measurement methods and procedures	
Purpose of data	Emission reduction calculations.
Additional comment	

Data/parameter	SDWS 9 EF_{b,f,CO_2}
Unit	tCO ₂ /TJ
Description	CO ₂ emission factor from use of fuels.
Source of data	IPCC defaults.

Value(s) applied	For wood and charcoal, the following defaults derived from the IPCC shall be applied: - Wood: 112 tCO₂/TJ - Charcoal: 165.22 tCO₂/TJ (includes charcoal production emissions)
Choice of data or Measurement methods and procedures	The current IPCC defaults have been applied.
Purpose of data	Emission reduction calculations.
Additional comment	NA

Data/parameter	SDWS 10 EF _{b,f,nonCO2}
Unit	tCO ₂ e/TJ
Description	Non-CO ₂ emission factor from use of fuels in case the baseline fuel is biomass or charcoal.
Source of data	IPCC defaults.
Value(s) applied	For wood and charcoal, the following defaults derived from the IPCC shall be applied: AR5 GWP - Wood: 9.46 tCO₂e/TJ - Charcoal: 44.83 tCO₂e/TJ (included production emissions of CH₄ and N₂O) AR4 GWP - Wood: 8.692 tCO₂e/TJ - Charcoal 40.26 tCO₂e/TJ (included production emissions of CH₄ and N₂O)
Choice of data or Measurement methods and procedures	The current IPCC defaults have been applied.

Purpose of data	Emission reduction calculations.
Additional comment	NA

Data/parameter	SDWS 11 η_{wb}
Unit	Percentage
Description	Weighted average efficiency of the baseline water boiling devices. Calculate the weighted average of the water boiling efficiency in the project boundary using the proportion of different stove types used and the stove efficiencies.
Source of data	The following default values may be applied to calculate the weighted average of the water boiling efficiency in the project boundary: - Three-stone fire or a conventional system for woody biomass lacking improved combustion air supply mechanism and flue gas ventilation system, which is without either a grate or a chimney: default efficiency 10%. - Other conventional systems using woody biomass: default efficiency 20%. - Improved cookstoves: manufacturer specification, or if not available, default efficiency 30%. - Fossil fuel combustion system: manufacturer specification, or if not available, following the testing procedure described below. In case other types of stoves are found in the project area, or if significant efficiency differences from the default values are expected, standard Water Boiling Tests may be undertaken to determine stove efficiency using representative sampling methods, following the most recent WBT protocol or when a sampling is used, follow the 4.2 below.
Value(s) applied	

Choice of data or Measurement methods and procedures	
Purpose of data	Emission reduction calculations.
Additional comment	

Data/parameter	SDWS 12 C_b
Unit	Percentage
Description	A proportion of project end-users who in the baseline were already using safe water, either from an improved water source, or from a water treatment method other than boiling. At the start of each crediting period.
Source of data	Any of the following sources shall be used: - baseline survey, - credible published literature for project region, - studies by academia, NGOs, or multilateral institutions, or - official government publications or statistics. Source applied must not be more than 3 years old.
Value(s) applied	
Choice of data or Measurement methods and procedures	
Purpose of data	Emission reduction calculations.
Additional comment	

Data/parameter	SDWS 13 q_i
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Unit	Liters per hour
Description	Capacity of the household or institutional water treatment technology.
Source of data	Any of the following sources shall be used: - manufacturer specifications, - design specifications, - third-party certification by a qualified entity, for example recognised certification/testing agency by National/International Standard body, - commercial guarantee by the seller. An alternative approach can be proposed when information is not available as per the requirements.
Value(s) applied	
Choice of data or Measurement methods and procedures	
Purpose of data	
Additional comment	

B.6.3 Ex ante estimation of SDG Impact

The detailed Ex-ante emission calculations for the project are as given in attached emission reductions spread sheet. The emission calculations were done as discussed below:

Baseline emissions:

As per "Emission Reductions from Safe Drinking Water Supply Version 1.0," baseline emissions factor is calculated as follows:

$$EF_b = SE_{w,b,y} * \sum (x_f * (EF_{b,f,CO2} * f_{NRB,f,y} + EF_{b,f,nonCO2})) \div 10^9$$

Where:

EF_b =Emission factor for the use of fuel to obtain safe water in the baseline

(tCO₂e/L)

SE_{w,b,y} = Specific energy required to boil water (kJ/L), to be calculated as per the paragraph below

x_f = Proportion of fuel f used in the baseline (fraction determined based on an energy basis)

EF_{b,f,CO2} = CO₂ emission factor from use of fuel f (tCO₂/TJ)

EF_{b,f,nonCO2} = Non-CO₂ emission factor arising from use of fuel f when the baseline fuel f is biomass or charcoal (tCO₂e/TJ). This parameter is omitted when f is a fossil fuel.

f_{NRB,f,y} = Fractional non-renewability status of woody biomass fuel during year y (fraction). For biomass, it is the fraction of woody biomass that can be established as non-renewable. This parameter is omitted when f is a fossil fuel.

f = Index for baseline fuel types

The specific energy required to boil water using the baseline technology (SE_{w,b,y}) is determined as follows, by calculating the energy input required to obtain 1 L of boiling water, including boiling and vaporization losses²⁸, taking into account default or measured stove efficiency.

$$SE_{w,b,y} = 360.83/\eta_{wb}$$

Where:

360.83 = Default amount of energy required to obtain 1 L of water after 5 minutes of boiling from a first principles approach²⁹ kJ/l.

η_{wb} = Efficiency of the stoves for baseline water boiling (%).
Weighted average of baseline stove types.

²⁸ The previous version of TPDDTEC Annex 3 assumed that purifying water by boiling would require boiling water for 10 minutes. This assumption is revised to 5 minutes, following WHO technical information that less than 5 minutes of boiling is sufficient for inactivation of enteric bacteria (Technical Brief WHO/FWC/WSH/15.02, 2015).

²⁹ This is calculated from the specific heat of water of 4.186 kJ/L 0C, the difference between the initial and final water temperature assuming a start at 20 0C and end at 100 0C, evaporation of 1% of water during 5 minutes of boiling to obtain 1 L boiled water, and latent heat of water evaporation of 2260 kJ/L. Also, the latent heat requires to boil one litre of water for five.

The baseline emissions shall be calculated as follows:

$$BE_y = EF_b \times (1 - C_b - X_{cleanboil,y}) \times Q_y \times M_{q,y}$$

Where:

BE_y = Baseline emissions from the use of fuel to obtain safe water in the baseline (tCO₂e)

C_b = Proportion of project end-users who in the baseline were already using a safe water supply that did not require boiling (%)

$X_{cleanboil,y}$ = Proportion of project end-users that boil safe water in the project year y (%)

Q_y = Quantity of safe drinking water provided by the project in year y (L)

$M_{q,y}$ = Modifier for the water quality in year y

The quantity of safe drinking water provided by the project is calculated using Method 2 which applies to HWT and IWT as per Annex 3.6.4 of "Emission Reductions from Safe Drinking Water Supply Methodology".

The quantity of safe drinking water provided by the project Q_y is determined as follows:

$$Q_y = \sum_p N_{p,y} \times U_{p,y} \times QPW_{hh,p,y} \times DP_{p,y}$$

Where:

$N_{p,y}$ = Number of premises type p with at least one project technology in year y

$U_{p,y}$ = Usage rate of the project technology by premises type p during year y (%)

$QPW_{hh,p,y}$ = Volume of drinking water per premises p per day in year y (L)

$DP_{p,y}$ = Days the project technology is present for end-users in the premises p in year y

The volume of drinking water per premises per day is determined by considering whether the capacity of the project device is sufficient to provide at least the default amount of drinking water, as follows:

$$QPW_{hh,p,y} = \min((q_i \times t_{p,y} \times DN_{p,y}), (QPW_p \times HN_{p,y}))$$

Where:

q_i = Capacity of the HWT or IWT individual project technology (L/h)

$t_{p,y}$ = Usage time of the project technology by premises type p in year y (h/day)

$DN_{p,y}$ = Average number of individual project technologies in each project premises type p in year y

$HN_{p,y}$ = Number of individuals per premises type p (e.g., household, school) in year y

QPW_p = Volume of drinking water per person per day for premises type p (L). Apply the default value or monitored value through water consumption field tests in the project scenario, capped at 5.5 L per person per day.

Project emissions

As per section 3.7 of the applied methodology "Emission Reduction from Safe Drinking Water Supply" Version 1.0 - 03/5/2021, project emissions may result from the operation of new low-emission water treatment technologies. The Nazava household water filter uses gravity to filtrate the water. Fossil fuels and electricity is not needed to filter the water, which results in a project emission factor of zero.

PE_y = Project emissions in year y (t CO₂e/yr) = 0

Leakage emissions

As per section 3.8 of the applied methodology "Emission reductions from Safe Drinking Water Supply" Version 1.0 – 03/5/2021, leakage relating to the non-renewable woody biomass shall be assessed and other types of leakage are excluded for simplification. The following leakage studies will be included to assess the emission reductions generated by the activity:

1. The following potential sources of leakage have been evaluated ex-ante:
 - a. **Members of the population who do not participate in the project, and previously used lower emitting energy sources, instead use the nonrenewable biomass saved under the project activity.**
 - There is no evidence that the project increases the use of higher emitting fuel outside the project boundary where lower emitting energy sources take in place. Wood fuels remain a valuable and declining resource. Moreover, many users collect locally available wood for free. The free

supply of wood is external to economic markets for wood and thus these communities are largely shielded from market forces on wood fuel prices. This trend will not be reversed by the project activity.

- The government published data provides evidence that both non-project and project beneficiaries mainly use firewood and/or charcoal to fuel traditional cookstoves for water boiling. Baseline surveys also substantiate that solid biomass fuels are the primary fuel type in the baseline. Also, the woodfuel using institutions were found to be using traditional /three stone fire stove for water boiling and the charcoal using institutions were found to be using traditional coal pot. There is therefore no risk that the non-project beneficiaries may adopt higher emitting energy sources due to the project activity.
- Given that the leakage assessment does not expect an increase in fuel consumption by the non-project beneficiaries attributable to the project activity, calculations do not need to be adjusted to account for this leakage at the time of validation. However, the relevant parameters/data may be updated, if necessary, as specified by the monitoring plan.

Overall justification will be done at the time of validation.

b. The project significantly reduces the NRB fraction within an area where other GHG mitigation project activities account for NRB fraction in their baseline scenario.

- The impact of the project activity on the NRB fraction within the project boundary is expected to be negligible. The size of the project activity is small compared to the scale of the project boundary (country of Kenya) and thus is not likely to be significant within the target population to affect a change in f_{NRB} . The amount of woody biomass saved due to project activity is very less as compared to the total woody biomass consumption in Kenya i.e., 61,963,512Tonnes/yr (refer fnrb). Hence It will not have any significant impact on the NRB fraction of Kenya.

Overall justification will be done at the time of validation.

c. The project population compensates for loss of the space heating effect of water boiling by adopting some other form of space heating or by retaining some baseline wood fuel-burning practices.

- The climate throughout Kenya is temperate to hot. Space heating is not likely to be significant within the target population. No evidence exists that the project will result in increased fuel use for heating from inefficient stoves.

Overall justification will be done at the time of validation.

2. Second, for each source for which the leakage assessment expects an increase in non-renewable biomass fuel consumption by non-project households/users attributable to the project activity, then calculations must be undertaken to account for the leakage from this source. Leakage is either calculated as a quantitative emissions volume (tCO₂e) or as a percentage of total emission reductions. The project documentation shall include a projection of leakage emissions based on available data and information. The monitoring plan must include monitoring parameters to be registered during the leakage investigation every two years to populate the leakage calculation.

Justification: Not Applicable as no significant increase in non-renewable biomass fuel consumption by non-project households/users attributable to the project activity is envisaged.

3. Third, the project developer must conduct a leakage investigation every two years using relevant methods. For example, surveys to determine parameters for the leakage calculation may be combined with project monitoring surveys, as is applicable.

Justification: leakage will be determined every two years.

4. If the ex-ante evaluation shows that leakage emissions are less than 5% of total emission reductions, then no monitoring is needed, and emission reductions simply shall be adjusted 5% down. In this case, the sources and

magnitude of leakage emissions must be reassessed at the time of crediting period renewal.

Justification: As per 3 above, the PD will estimate leakage every two years. Alternatively, in case the leakage cannot be assessed, due to lack of data or other reasons, the PD may use a leakage discount factor of 0.95 (given it has been demonstrated above already that leakage is 0).

Justification: leakage will be determined every two years or at the time of CP renewal.

Ex-ante emission reduction calculations are provided in the Emission Reduction Calculation spreadsheet, submitted to DOE separately. In addition, further information for each parameter is provided in sections B.6.2 and B.7.1 of this VPA-DD.

Emission reductions

The emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

ER_y = Emission reductions in year y (t CO₂e/yr)

BE_y = Baseline emissions in year y (t CO₂e/yr)

PE_y = Project emissions in year y (t CO₂e/yr)

LE_y = Leakage emissions in year y (t CO₂e/yr)

B.6.4 Summary of ex ante estimates of each SDG Impact

YEAR	BASILINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1- May to Dec 2023			1,003.04
Year 2- Jan to Dec 2024			6,368.94
Year 3- Jan to Dec 2025			23,432.59
Year 4- Jan to Dec 2026			54,953.58
Year 5- Jan to Dec 2027			94,062
Year 6- Jan to May 2028			40,357.57

Total			220,178.47
Total number of crediting years			
Annual average over the crediting period			

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 1

Data / Parameter	ABS _{project}
Unit	%
Description	Access to basic services (number of premises with at least one household water filter distributed / installed under the project).
Source of data	Sales records and monitoring surveys
Value(s) applied	Households using the filters Institutions using the filters
Measurement methods and procedures	The value shall be established based on sales records and sampling survey across a randomly selected number of households. The results will be applied to all households of the project activity.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 1
Additional comment	-

SDG 3

Data / Parameter	IH _{users,project}
Unit	%
Description	Percentage of users reporting reduction in incidence of diarrhea and water borne diseases etc. after shifting to the project.
Source of data	Monitoring surveys
Value(s) applied	90% (ex-ante estimation)

Measurement methods and procedures	The value shall be established based on sampling survey across a randomly selected number of households. The results will be applied to all households of the project activity.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 3
Additional comment	-

SDG 5

Data / Parameter	AST _{project}
Unit	Number of hours
Description	Average time savings associated with boiling and fuel collection.
Source of data	Monitoring surveys
Value(s) applied	1.3 (ex-ante estimation)
Measurement methods and procedures	This parameter will be included in the monitoring survey, where users will be surveyed about the time-saving benefits associated with the adoption of the water filter. This can be assessed by measuring the decrease in the frequency of weekly trips for firewood collection and estimating the time typically spent on each collection trip.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 5
Additional comment	-

SDG 6

Data / Parameter	SWQ _{project}
Unit	Number

Description	Total number of household and institution water filters distributed / installed provide safe drinking water quality.
Source of data	Monitoring surveys
Value(s) applied	26880 (ex-ante estimation)
Measurement methods and procedures	The project outcome of SDG 6 can be calculated as follows: $SWQ_{Project} = N_{p,y} * (1 - Cb)U_{p,y} * M_{q,y}$
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 6
Additional comment	-

SDG 7

Data / Parameter	AAC _{project}
Unit	Number
Description	Access to affordable and clean energy (number of operating household and institution water filters after shifting to the project).
Source of data	Household and institution water filters distribution records and monitoring surveys
Value(s) applied	26880 (ex-ante estimation)
Measurement methods and procedures	The value shall be established based on sales records and sampling survey across a randomly selected number of households. The results will be applied to all households of the project activity.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 7
Additional comment	-

SDG 8

Data / Parameter	Number of people employed by the project
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Unit	Number
Description	Total number of jobs created.
Source of data	Nazava database
Value(s) applied	100 (ex-ante estimation)
Measurement methods and procedures	Nazava will maintain a record of jobs created as a result of implementation of this programme.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 8
Additional comment	-

SDG 15

Data / Parameter	Forest area saved
Unit	Tonnes/year
Description	Refers to the total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology
Source of data	Monitoring survey
Value(s) applied	20,000(ex-ante estimation)
Measurement methods and procedures	The value shall be established based on sampling survey across a randomly selected number of households. Households will be asked to report the amount of fuel they have saved as a result of engaging in the project activity. The results will be applied to all households of the project activity.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Purpose of data	Monitoring of SDG 15
Additional comment	-

SDG 13

Data / Parameter	$X_{\text{cleanboil},y}$
Unit	%
Data / Parameter	$Q_{m,y}$
Description	Proportion of project end-users that boil safe (treated, or from safe supply) water after installation of project technology in year y.
Unit	Liters/year
Source of data	Monitoring survey
Description	Monitored quantity of safe water provided by the HWT project in year y.
Value(s) applied	0 (ex-ante estimation)
Source of data	Continuous monitoring of the HWT and IWT usage and frequent random survey in households and institutions.
Measurement methods and procedures	The value shall be established based on sampling survey across a randomly selected number of households. The results will be applied to all households of the project activity.
Value(s) applied	8000 (ex-ante estimation)
Monitoring frequency	Annual
Measurement methods and procedures	Calculate the amount of water consumed per year
QA/QC procedures	Transparent data analysis and reporting. The data is analysed in the monitoring report and raw data is available on request to the VVB.
Monitoring frequency	Continuous
Purpose of data	Monitoring of SDG 13
Additional comment	Follow manufacturer, sector, national or international standards or guidelines for calibration and maintenance of the measurement device
QA/QC procedures	
Purpose of data	Monitoring of SDG 13
Additional comment	Value applied is an estimate for purposes of ex-ante ER estimation.

B.7.2 Sampling plan

Sampling Method

Simple Random Sampling method shall be used when evaluating and assessing the project activity scenario. Based on the customers database, the project shall identify the various geographical zones of operational Filters within the project activity and carry out random test for the identified customers.

Objectives

The objective of sampling is to precisely quantify the water consumption characteristics in the project scenario, sustainable development impacts and adoption rate of the project technologies distributed to households and institutions.

Sample Size

The sample size applicable for monitoring of the parameters shall be determined in accordance with general requirements for sampling outlined in Section 4.2 of the methodology.

The following sample size guidelines shall be applied to all monitoring parameters unless otherwise specified.

Table 9: Sample size guidelines

Group size	Minimum sample size
< 300	30 of population size, whichever is smaller
300 to 1000	10% of group size
> 1000	100

B.7.3 Other elements of monitoring plan

The customers database – This will entail the record of the details of households and institutions that have purchased or acquired the project technology. The information included in the database will include:

1. Name of the user and identity number
2. Address: village and county of residence
3. Contact information: Telephone number.
4. Date of purchase
5. Serial number of the filter
6. The distribution partner: Direct sale or microfinance institution/saccos from whom the purchase was made.
- 7.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

>>

19th May 2023 is the day the first filter was sold through the project.

C.1.2 Expected operational lifetime of project

>>

Expected operational life of the project is 20years.

C.2. Crediting period of project

C.2.1 Start date of crediting period

>>

The project start date is 19th May 2023.

C.2.2 Total length of crediting period

>>

5 years for CP-1 19/05/2023 to 19/05/2028. The crediting period will be renewed twice in line with the Community Services Activity Requirements.

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in [Appendix 1](#), ongoing monitoring is summarized below.

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
Principle x.y	

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements.

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	The three local stakeholder consultation meetings were carried out following a gender sensitive approach. In total the stakeholder meetings had 60% participants representing women. In the two village meetings, there was a special emphasis on the inclusion of women. This was because in the rural areas women typically bear the disproportionate burden of tasks such as fetching fuel and water for household use. Recognizing this, the project developer ensured that women were actively engaged in the meeting, as they would be the major beneficiaries of the project activity. The project will incorporate measures to ensure there is no gender-based discrimination. In terms of employment, women will be given equal opportunities as men. There will also be equal distribution of the project technology and therefore ensuring that women benefit in terms of saving time spent in collection of firewood for water boiling and water boiling. In addition, this will ensure women benefit equally in terms of health improvement.
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Question 2 - Explain how the project aligns with existing country policies, strategies, and best practices	The Government of Kenya established the National Policy on Gender and Development in 2019 which highlights principles of equality, equity, inclusiveness, and non-discrimination. These principles offer an anchorage for gender equality. The project will contribute towards the goals of policy by providing women equal opportunities during employment and by saving time used in either collecting fuelwood for boiling water to make it fit for drinking or travelling long distance to collect safe drinking water. Consequently, the project aligns with the existing policies, strategies, and best practices of host country Kenya.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	No
Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

Below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

E.1 Summary of stakeholder mitigation measures

In this project, three stakeholder consultations were conducted: one in Nairobi involving companies and government officials, and two in the villages of Eldoret and Kapsogut, specifically engaging both men and women, who are the project's users. The concerns and questions raised by stakeholder during these consultation meetings are detailed in the tables below.

Overview of comments from Nairobi meeting.

Gender of Stakeholder	Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation/ Justification (Why? How?)
Questions			

M	How do you clean the ceramic filter?	Yes	The filter is provided with two items, an indicator, and a sponge. The sponge is used to remove dirt from the ceramic surface using water. The containers can be washed in a similar way to utensils. As the ceramic layer is cleaned, it reduces in size. The indicator helps the customer in determining when it is time to replace the ceramic.
M	Can the unit remove turbidity? How do you prevent the clogging?	Yes	The filter effectively removes turbidity. However, in water with high turbidity levels, the ceramic clogs more rapidly compared to water with lower turbidity. Therefore, the frequency of filter cleaning depends on the turbidity level in the water. If water contains high turbidity, Nazava advises allowing the water to settle before pouring it into the filter. This step mitigates clogging and ensures effective filtration.

M	Do you have only one size of the product, or are there smaller sizes available?	Yes	Currently, this is the largest size available. However, Nazava also offers a smaller, travel-sized version of the product.
M	Why do you not sell the travel size?	Yes	If you would like a travel-sized version, it is available for purchase.

M	What is the strategic approach that you want to use to reach out to local communities that have the biggest issues with water pollution?	Yes	The local communities do have access to water, but it is often contaminated. This is where our filter comes in. Nazava collaborates with organizations leading initiatives to provide clean water. These organizations have already identified communities in need of clean water. For instance, in Garissa, Nazava collaborates with organizations that have the necessary funding and resources to ensure access to clean water for those in need. Additionally, Nazava works together with microfinance institutions (MFIs) to enable households to pay in installments. Nazava's team of safe water experts (SWEs) also conduct field visits to raise awareness about the importance of clean water.
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M	I present a youth conservation and I work with local communities. From the things that you have shared, I have found some synergies for collaboration to reach out to vulnerable communities.	Yes	Let's talk further after the meeting. Additionally, feel free to visit Nazava's office located in Westlands, Parklands Road 25.
M	Does the filter include chemical chlorination treatment?	Yes	No, the filter does not involve chemical chlorination treatment. It relies on a physical filtration process using the ceramic filter; nanosilver layer and activated carbon. Since the ceramic filter already removes bacteria, a chemical chlorination treatment is not needed.
M	Is there a level of pollution that can limit the use of the water filter?	Yes	Currently, the filter is effective for almost all types of pollution, except for water with salt or fluoride content.
M	What about the compound magnesium?	Yes	The filter does not specifically target the removal of magnesium from water. However, Nazava does not aim to remove magnesium from the water, as it is beneficial for our health.

M	Currently, the river is contaminated with fecal matter from the raw sewage coming from urban areas. This water can only be used for irrigation, but not for domestic purposes. Can it address such a situation or challenge?	Yes	The filter consists of three layers to address such a situation. The ceramic layer removes larger bacteria, while the nanosilver layer is effective in killing bacteria, including E. coli, commonly found in fecal matter. Nazava has conducted water sampling tests, and the results are available in the flyer and on the website. The filter is capable of removing 99.9% of the bacteria from water.
M	Have you already started selling carbon credits?	Yes	Currently, Nazava is in the process of setting up the carbon credit project and the stakeholder meeting is part of this process.
M	Are their counties that are prioritized?	Yes	No counties are prioritized. The aim of this project is to sell in every county.
Potential risks to project			
M	No time savings on water collection since customers still need to fetch waters.	No	The feedback provided falls outside the scope of this project. However, there are time savings for women in terms of fuel collection and boiling water.
F	Safe drinking water is a fundamental right and should be provided free of charge.	No	Customers pay for the service and delivery and not for the water itself. To sustain the project, Nazava cannot provide the filters free of charge.

M	High product cost for some households.	Yes	The cost of the filter can be subsidized through the sale of carbon credits and partnering with organizations to cover certain expenses.
Concerns to project			
M	Acceptability of the product. Households have been drinking their water for years. Why should they suddenly need to change their habits?	Yes	Nazava is currently raising awareness through our Safe Water Experts (SWEs) in the field
M	Risk of breaking the product.	Yes	Nazava has a 1-year warranty to cover any potential breakages. Additionally, the product is made of the highest plastic quality and therefore strong.
M	Recontamination in buckets due to long storage.	No	The closed containers, designed for 16 liters, are intended to serve a household of five people for one day. Nazava expects limited to no recontamination in the buckets due to long storage. However, Nazava might consider advising households to consume the water regularly to minimize storage time.

Overview of comments from Eldoret meeting.

Gender of Stakeholder	Stakeholder comment	Was comment taken into account (Yes/No)?	Explanation/Justification (Why? How?)
Questions			

M	Why do people who frequently drink dirty water do not suffer from water-related diseases unlike those who constantly drink clean water?	Yes	It is hard to tell if someone is suffering from water-related diseases unless they are tested in the hospital.
F	Do the filters have spare parts available?	Yes	The spare parts can be bought from Nazava. You need to call our customer care to get the replacements.
M	Does using utensils cleaned with dirty water cause water-related diseases?	Yes	The utensils do not spread the water-related diseases since utensils are left to dry and the bacteria do not thrive outside water.

M	Did you come with enough filters to share with us?	Yes	No, the two filters available are for demonstration. If interested, you can order through Paul.
F	Do you need to clean the filter once you have filtered the water?	Yes	The filter needs to be cleaned regularly to avoid blockage of the ceramic filter. The filter is provided with two items, an indicator and a sponge. The sponge is used to remove dirt from the ceramic surface using water. The containers can be washed in a similar way to utensils. When the ceramic layer is cleaned, it reduces in size. The indicator helps the customer in determining when it is time to replace the ceramic.
F	Is the filtered water cold?	Yes	The filtered water will be room temperature.
F	How fast is the filtration process?	Yes	The filter is expected to filter 2 liters per hour.

M	The process seems a bit slow, how do I ensure that I get enough water to drink?	Yes	To ensure you get sufficient water to drink, refill the water in advance. For instance, at night when going to sleep in order to have clean drinking water in the morning.
Concerns to project			

F	The cost of the filter is a bit high and most stakeholders in the area are not able to afford and they are not part of the microfinance groups. The people in low-income communities will not be able to afford it. Additionally, the people in the slums and the elderly people will not be able to afford the filters.	Yes	The proposed price of 3000 KSH is too low and not sustainable for the company. An option of 'lipa pole-pole' is underway which will allow people to pay through phone in installments.
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M	Only a few of us were invited to the meeting, how do the rest of the community get awareness about the filters?	Yes	The invited stakeholders should be ambassador in their community.
M	There are other companies that have been selling filters before and they later stopped selling, how long will Nazava continue being in the market?	Yes	The primary focus of Nazava Water Filters is selling water filters. The founders are committed to ensuring safe drinking water for all and will continue to sell their products making sure it is readily available on the market.

M	There is too little awareness about the Nazava Water Filter within the community	Yes	Nazava is currently raising awareness through our Safe Water Experts (SWEs) in the field
F	The use of the filters will potentially reduce the number of customers for ELDOWAS, the local governmental water utility company.	No	Customers will continue to rely on water from ELDOWAS, but they will filter it through the Nazava filter before consumption to ensure its clean and safe.

Overview of comments from Kapsogut meeting.

Gender of Stakeholder	Stakeholder comment	Was comment taken into account (Yes/No)?	Explanation/Justification (Why? How?)
Questions			
F	How much does the water filter cost	Yes	The filter costs 7800 KSH. You can get the filter through microfinance institutes and saccos.
F	Where do I get replacements after three years?	Yes	The replacements are readily accessible from our offices or through the microfinance institutes.
F	Can we form a group of stakeholders present for future engagement and opportunities with Nazava?	Yes	Nazava usually hires SWEs in different regions. They will get in contact with you for future engagement and opportunities.
F	Can you connect the filter to electricity?	Yes	No, the filter requires no energy. It uses gravity.

F	How long can the filtered water last in the lower compartments without going bad?	Yes	The filter is small, and you will probably drink all the filtered water within a few days. Additionally, the filter is closed off with a lid ensuring no risk of contamination.
F	Does the filter has a fixed price, or is there a discount?	Yes	Currently, the price is fixed at 7800 KSH.
Concerns to project			
F	The tap seems delicate and might break.	Yes	All replacements are readily available on the market. Additionally, if a part breaks during the one-year warranty period, replacements are provided free of charge.
F	The joint between the two compartments seems weak.	Yes	The joint between the upper container and the lower container is carefully designed to ensure they easily fit atop one another. This fit results in a very strong connection between the two.

E.2 Final continuous input / grievance mechanism

The CI/GM for the local stakeholder meeting in Nairobi:

	Method Chosen (include all known details e.g. location of the book, phone, number, identity of mediator)	Justification of Choice (best practice)
Continuous Input / Grievance Expression Process Book (mandatory)	Nazava Water Filters Limited office, Parklands Road 25, Westlands.	The continuous input and grievance expression book is mandatory. By placing it in the Nazava Water Filters Limited office, the stakeholder can directly communicate to the project developers.
GS Contact (mandatory)	help@goldstandard.org	The Gold Standard contact is mandatory and the contact email was shared with everyone at the meeting. The stakeholders can directly reach out to Gold Standard for any issues regarding the project.
Telephone access (optional)	+254 111 902431	The contact person for the project are Marleen Ophorst and Racheal Macharia/ The stakeholders can call the number during office hours to provide their feedback. Everyone in the meeting confirmed to have access to a mobile phone.
Internet/email access (optional)	carbon@nazava.com	Feedback can be sent via email by the stakeholders who have internet access. Everyone in the meeting confirmed to have access to a mobile phone.
Nominated Independent Mediator (optional)	NA	For the Nairobi meeting, no nominated independent mediator was appointed, as all stakeholders confirmed to have access to email and phone.
Other	NA	NA

The CI/GM for the local stakeholder meeting in Eldoret:

	Method Chosen (include all known details e.g. location of the book, phone, number, identity of mediator)	Justification of Choice (best practice)
Continuous Input / Grievance Expression Process Book (mandatory)	Racecourse Ward Office, Eldoret, Kenya	The continuous input and grievance expression book is mandatory. By placing it in the Racecourse Ward Office in Eldoret, the stakeholder can directly communicate to the chief, the person they trust.
GS Contact (mandatory)	help@goldstandard.org	The Gold Standard contact is mandatory and the contact email was shared with everyone at the meeting. The stakeholders can directly reach out to Gold Standard for any issues regarding the project.
Telephone access (optional)	+254 111 902431	The contact person for the project are Marleen Ophorst and Racheal Macharia. The stakeholders can call the number during office hours to provide their feedback. Everyone in the meeting confirmed to have access to a mobile phone.
Internet/email access (optional)	carbon@nazava.com	Feedback can be sent via email by the stakeholders who have internet access. Everyone in the meeting confirmed to have access to a mobile phone.
Nominated Independent Mediator (optional)	Sammy Melly (chief Eldoret) +254 724 549021	The nominated independent mediator will be the chief of Racecourse ward in Eldoret as this is the person the community trust.
Other	NA	NA

The CI/GM for the local stakeholder meeting in Nairobi:

	Method Chosen (include all known details e.g. location of the book, phone, number, identity of mediator)	Justification of Choice (best practice)
Continuous Input / Grievance Expression Process Book (mandatory)	Chief office, Kapsogut, Kenya	The continuous input and grievance expression book is mandatory. By placing it in the Chief office in Kapsogut, the stakeholder can directly communicate to the chief of the person they trust.
GS Contact (mandatory)	help@goldstandard.org	The Gold Standard contact is mandatory and the contact email was shared with everyone at the meeting. The stakeholders can directly reach out to Gold Standard for any issues regarding the project.
Telephone access (optional)	+254 111 902431	The contact person for the project are Marleen Ophorst and Racheal Macharia/ The stakeholders can call the number during office hours to provide their feedback. Everyone in the meeting confirmed to have access to a mobile phone.
Internet/email access (optional)	carbon@nazava.com	Feedback can be sent via email by the stakeholders who have internet access. Everyone in the meeting confirmed to have access to a mobile phone.
Nominated Independent Mediator (optional)	Victor Kirui (chief Kapsogut) +254 720 644365	The nominated independent mediator will be the chief of Kapsogut as this is the person the community trusts.
Other	NA	NA

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into [SECTION D](#) above. Please refer to the instructions in the [Guide to Completing](#) this Form.

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response
P.1 HUMAN RIGHTS		
P.1.1.1 	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
P.1.1.1 	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
P.1.1.2 	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
P.1.1.3 	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
P.1.1.3 	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Please add text here...		
Would the project potentially involve or lead to:		
P.1.1.1 	adverse impacts on enjoyment of the human rights (civil, political, economic, social, or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO

P.1.1.2 	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project incorporates a human rights-based approach.

For example, by describing how the project design:

- is informed by human rights analysis, including from UN human rights mechanisms (human rights treaty bodies, universal periodic review, special procedures)
- includes measures to assist the government to realise (respect, protect and fulfil) human rights under international law and to implement human rights-related standards in national law (whichever is higher)
- enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)
- provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities.

Please add text here....

[P.2 | GENDER EQUALITY AND WOMEN'S EMPOWERMENT](#)

P.2.1.1 	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
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P.2.1.2 	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
P.2.1.2 	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES ☒ NO
P.2.1.2 	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO
P.2.1.2 	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES ☒ NO
P.2.1.3 	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
P.2.1.4 	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project potentially involve or lead to:		
P.2.1.1 	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.1 	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES ☐ POTENTIALLY ☒ NO

P.2.1.2 	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES ☐ POTENTIALLY ☒ NO
Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.		
Please add text here....		
P.3 COMMUNITY HEALTH AND SAFETY		
P.3.1.1 	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
P.3.1.2 	Does the project involve any potential risks to the workers' safety and health?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project potentially involve or lead to:		
P.3.1.1 	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
P.3.1.2 	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO

P.3.1.2 	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk related to community health and safety.

Please add text here....

[P.4 | CULTURAL HERITAGE, INDIGENOUS PEOPLE, DISPLACEMENT AND RESETTLEMENT](#)

[P.4.1 | Sites of Cultural and Historical Heritage](#)

P.4.1.1 	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES ☒ NO
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If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Please add text here....

Would the project potentially involve or lead to:

P.4.1.1 	activities adjacent to or within a cultural heritage site?	☐ YES ☐ POTENTIALLY ☒ NO
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P.4.1.1 	significant excavations, demolitions, movement of earth, flooding, or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional, or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 	If answer to question above is "YES" or "POTENTIALLY" - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES ☐ NO ☒ NA
P.4.1.3 	If answer to question above is "YES" - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES ☐ NO ☒ NA
P.4.1.4 	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.1.4 	If answer to question above is "YES," has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		

Please add text here....		
<u>P.4.2 Forced Eviction and Displacement</u>		
<u>P.4.2.1 </u>	Does the project involve any risks related to involuntary relocation of people?	☐ YES ☒ NO
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project potentially involve or lead to:		
<u>P.4.2.1 </u>	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
<u>P.4.2.2 </u>	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
<u>P.4.2.2 </u>	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
<u>P.4.2.2 </u>	If answer to question above is “YES” or “POTENTIALLY,” - Has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group, or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
<u>P.4.2.3 </u>	If answer to question above is “YES” - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

P.4.2.3	If answer to question above is "YES," have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here....		
P.4.3 LAND TENURE AND OTHER RIGHTS		
P.4.3.1	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES ☒ NO
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project potentially involve or lead to:		
P.4.3.1	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.3.1	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
P.4.3.2	Changes in legal arrangements, if yes, are the changes made in line with relevant laws and regulations?	☐ YES ☐ NO ☒ NA
P.4.3.2	Changes in legal arrangements, if yes, are these changes agree with free, prior, and informed consent of the involved stakeholders?	☐ YES ☐ NO ☒ NA

P.4.3.3	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
P.4.3.4	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.3.4	If answer to question above is "YES," have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
P.4.3.5	Have project developers in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☒ YES ☐ NO ☐ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
<i>During the local stakeholder meetings, the location where the Continuous Input / Grievance Expression Process Book will be placed which is the Nazava Filters Limited, Kenya Office, Parklands Road 25, Westlands. In addition, the stakeholders were given the email address and the telephone number through which they can give their feedback and air their grievances. Email address: carbon@nazava.com and Contact: +254 111 902431.</i>		
P.4.4 INDIGENOUS PEOPLES		
P.4.4.1	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☒ YES ☐ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
<i>Nazava Water Projects aims at employing various Safe Water Expert (SWE) in different counties to carry out the distribution of the water filters. All men and women will be given equal employment opportunities as per the gender policy 2019. In addition, the SWE hired will carry out regular seminars and campaigns to educate the indigenous people the importance of safe drinking water.</i>		
Would the project potentially involve or lead to:		
P.4.4.1	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO

P.4.4.1	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.7	If answer to above questions is "YES" or "POTENTIALLY," - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES ☐ NO ☒ NA
P.4.4.3	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.4	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO

P.4.4.5 P.4.4.6 	If answer to question above is “YES” or “POTENTIALLY” - Did the project obtain free, prior, and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices?? - Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?	☐ YES ☐ NO ☒ NA
P.4.4.8 	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
P.4.4.8 	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA
P.4.4.9 	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☒ NO ☐ NA

³⁰ Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

P.4.4.9 	If answer to question above is "YES," have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here....		
P.5 CORRUPTION		
P.5.1.1 	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
P.5.1.1 	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here....		
ECONOMIC SAFEGUARDING PRINCIPLES		
P.6 ECONOMIC IMPACTS		
P.6.1 LABOUR RIGHTS AND WORKING CONDITIONS		
P.6.1.1 	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
P.6.1.1 	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
P.6.1.2 	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO
P.6.1.3 	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☒ NO

P.6.1.4 P.6.1.5 	Does the project allow child labor?	☐ YES ☒ NO
P.6.1.7 P.6.1.8 	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO
P.6.1.9 	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES ☒ NO
P.6.1.10 	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project potentially involve or lead to: (NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)		
P.6.1.1 	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO

P.6.1.1 	absence of documented working agreements with all individual workers <i>If such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.</i>	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	use of migrant workers? <i>if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.</i>	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 	having no arrangements for basic services³⁰ for workers? <i>The project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association</i>	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO

P.6.1.3 	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
P.6.1.7 	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO
P.6.1.7 	No provision of safety and health training provisions, including on the proper use and maintenance of personal protective equipment conducted by competent persons and the maintenance of training records?	☐ YES ☒ NO
P.6.1.7 	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO
P.6.1.8 	occupational health and safety risks due to physical, chemical, biological, and psychosocial hazards (including violence and harassment) throughout the project life cycle?	☐ YES ☒ NO
P.6.1.9 	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES ☒ NO
P.6.1.10 	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
P.6.1.11 	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here....

P.6.2 | NEGATIVE ECONOMIC CONSEQUENCES

P.6.2.1	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
P.6.2.2	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
P.6.2.2	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here...

Would the project involve or lead to:

P.6.2.2	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.2.2	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here....

P.7 | CLIMATE AND ENERGY

P.7.1 GHG EMISSIONS		
P.7.1.1 	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project involve or lead to:		
P.7.1.1 	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here....		
P.7.2 ENERGY SUPPLY		
P.7.2.1 	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project involve or lead to:		
P.7.2.1 	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO
³¹ 'Involve' means some way.	if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in	

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here....

P.8 | WATER

P.8.1 | IMPACT ON NATURAL WATER PATTERNS/FLOWS

P.8.1.1 	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
P.8.1.1 	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
P.8.1.1 	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
P.8.1.1 	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here....

Would the project involve or lead to:

P.8.1.1 	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO

P.8.1.1 	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.2 	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☒ NO ☐ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here....		
P.8.2 EROSION AND/OR WATER BODY INSTABILITY		
P.8.2.1 	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project involve or lead to:		
P.8.2.2 - P.8.2.5 	negatively impact on the catchment area. <i>If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.</i>	☐ YES ☐ POTENTIALLY ☒ NO

P.8.2.6	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☒ NO ☐ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here....		
P.9 ENVIRONMENT, ECOLOGY AND LAND USE		
P.9.1 LANDSCAPE MODIFICATION AND SOIL		
P.9.1.1 - P.9.1.3	Is there any risk of soil resource degradation or loss of ecosystem services provided by soil in the project? <i>If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.</i>	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here....		
Would the project involve or lead to:		
P.9.1.4	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.1.4	if answer to above question "yes" or "potentially," does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
<i>Please add text here....</i>		
P.9.2 VULNERABILITY TO NATURAL DISASTER		
P.9.2.1 	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
<i>Please add text here....</i>		
Would the project involve or lead to:		
P.9.2.2 	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.2.2 	if answer to above question "yes" or "potentially," did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
<i>Please add text here....</i>		
P.9.3 BIOSAFETY AND GENETIC RESOURCES		

APPENDIX 2 - CONTACT INFORMATION OF PROJECT DEVELOPER(S)

Organization name	Nazava Water Filters Limited, Kenya
Registration number with relevant authority	PVT-ZQULXP7R Registered under the Company Act 2015, by Government of Kenya
Street/P.O. Box	Parklands Road 25, Westlands P.O Box 1102, 00600 Nairobi, Kenya
Building	Parklands Road 25, Westlands
City	Nairobi
State/Region	East Africa
Postcode	
Country	Kenya
Telephone	+254 111 902431
E-mail	kenya@nazava.com carbon@nazava.com
Website	https://nazava.co.ke/
Contact person	Racheal Macharia
Title	Water and Carbon Expert
Salutation	Ms
Last name	Macharia
Middle name	Njeri
First name	Racheal
Department	Carbon and Research and Development

Mobile	+254 111 902431
Direct tel.	+254701154084
Personal e-mail	racheal@nazava.com

APPENDIX 3 - LUF ADDITIONAL INFORMATION

Risk of change to the Project Area during Project Certification Period:	
Risk of change to the Project activities during Project Certification Period:	
Land-use history and current status of Project Area:	
Socio-Economic history:	
Forest management applied (past and future)	
Forest characteristics (including main tree species planted)	
Main social impacts (risks and benefits)	
Main environmental impacts (risks and benefits)	
Financial structure	

Infrastructure (roads/houses etc):	
Water bodies:	
Sites with special significance for indigenous people and local communities - resulting from the Stakeholder Consultation:	
Where indigenous people and local communities are situated:	
Where indigenous people and local communities have legal rights, customary rights or sites with special cultural, ecological, economic, religious or spiritual significance:	

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>>

A4.2. Describe the impacts of design change on the following.

a. Additionality

>>

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified.

>>

c. Compliance with the monitoring plan of the applied methodology

>>

d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan.

>>

e. Scale of the project activity

>>

f. Stakeholder consultation

>>

g. Sustainable development criteria

>>

h. Safeguarding assessment

>>

i. *Compliance with applicable legislation*

>>

j. **Only for LUF Projects:** Transparent summary of all approved changes in Project Area, Eligible Area and accompanying changes in ex-ante emissions removals.

DATE OF APPROVED DESIGN CHANGE (MM/DD/YYYY)	PROJECT AREA (HA)		ELIGIBLE AREA (HA)		EX-ANTE ESTIMATE (TCO2E)	
	INCREASE OR DECREASE?	VALUE (HA)	INCREASE OR DECREASE?	VALUE (HA)	INCREASE OR DECREASE?	PERCENTAGE (%)

Revision History

Version	Date	Remarks
1.5	29 June 2023	Editorial changes to match V2.1 of the Safeguarding Principles Requirements
1.4	21 June 2023	Editorial changes to match V2.0 of the Safeguarding Principles Requirements
1.3	14 April 2023	Integrated the design change memo as annex of the document. Editorial changes
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections. Improved clarity on Key Project Information Inclusion criteria table added. Gender sensitive requirements added. Prior consideration (1 yr rule) and Ongoing Financial Need added. Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity. Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required. Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on 'gender sensitive' requirements
1.0	10 July 2017	Initial adoption