

TERMS OF REFERENCE

COST-EFFECTIVENESS AND ACCEPTABILITY STUDY FOR FAIRCAP WATER FILTER PROJECT

BACKGROUND

Action Against Hunger (AAH) in collaboration with local partners, is completing a project that started in February 2023, aimed at improving access to safe drinking water in Niger (AAH Spain) and Somalia (AAH US). This initiative, titled "Adopting an Innovative Solution for Household Water Treatment in Niger and Somalia," is supported by a grant from ELRHA's Humanitarian Innovation Fund (HIF), with a total funding request of £149,990 GBP.

The primary objective of this project is to adopt and implement the Faircap Family filter, an innovative household water treatment solution, in targeted areas within the Maradi and Tahoua regions of Niger, and the Afgooye district in the Lower Shabelle region of Somalia. These areas have been severely impacted by conflict, leading to significant displacement and a dire need for reliable access to clean water.

The project focused on several key activities to ensure the successful adoption and integration of the Faircap filter. A total of 555 household filters were distributed in the target area in Somalia and 788 in Niger, directly benefiting approximately 5,516 individuals. This distribution was accompanied by comprehensive training sessions for project teams, community health workers, and local partners, ensuring that all stakeholders are well-equipped to use and maintain the filters effectively.

Regular home visits were conducted to monitor the use of the filters, assess water quality, and gather user feedback through acceptability surveys. This data is vital in evaluating the effectiveness of the Faircap filter and making any necessary adjustments to the implementation strategy.

In Niger, AAH Spain collaborated with ADKOUL, a local NGO, and in Somalia, AAH US with the Juba Foundation.

The efficacy of the Faircap filter is well demonstrated in laboratory settings, but evidence of effectiveness in actual humanitarian settings is lacking, especially from the users' point of view. The project hypothesise that the Faircap filter is a more effective water treatment method than standard chlorination products since it does not require previous knowledge nor continuous effort by users to utilise the treatment.

During the project the teams collected and compared data over more than a 12-month period on both Faircap (the gravity-fed filter and the Faircap filter with tap) and standard water chlorination (aquatabs).

The project aims also to assess the following:

Product effectiveness: turbidity of filtered water, flow rate and absence of contamination, and average lifespan will be calculated.

User acceptability and appropriation: regular use and maintenance of the filter will be monitored, as well as user's perception of the product (effectiveness, ease of use, quantity and quality of filtered water, etc.).

Product usability and quality: ease of transport, fitting the filters into local water recipients, leakage and other quality aspects will be documented. Recommendations for improvement from users and implementing partners will be recorded.

By improving access to safe drinking water, the project aims to reduce the incidence of waterborne diseases and related malnutrition among vulnerable populations, particularly children and young people, refugees, internally displaced persons (IDPs), and women and girls.

The efficacy of the Faircap filter is well demonstrated in laboratory settings, but evidence of effectiveness in actual humanitarian settings is lacking, especially from the user's point of view. We hypothesise that the Faircap filter is a more effective water treatment method than standard chlorination products since it does not require previous knowledge nor continuous effort by users to utilise the treatment.

Therefore, AAH is looking for a consultant or team of consultants to work remotely and generate valuable evidence on the effectiveness and cost-efficiency of the Faircap filter in humanitarian settings, and potentially informing broader adoption by other humanitarian agencies.

OBJECTIVE

As part of the project "Adopting an Innovative Solution for Household Water Treatment in Niger and Somalia," an external consultant will be engaged to conduct a comprehensive cost-effectiveness study and acceptability analysis of the Faircap Family filter. This task is crucial to evaluate the viability and sustainability of the filter as a long-term solution for improving access to safe drinking water in the targeted regions.

The primary objective of this task is to assess the economic and practical feasibility of the Faircap Family filter in comparison to existing water treatment methods, such as chlorination products. The study aims to provide actionable insights into the cost-efficiency, user acceptance, and overall effectiveness of the filter in real-world humanitarian settings.

Objective 1: To evaluate the economic feasibility of the Faircap Family filter compared to traditional chlorination methods (aquatabs) in terms of cost per liter of treated water and overall economic benefits.

Objective 2: To assess the acceptability of the Faircap Family filter among users in the target communities, focusing on user satisfaction, ease of use, and cultural fit.

METHODOLOGY

1. Cost-Effectiveness Study

1. Data Collection:

- **Baseline Data:** Collect baseline data on current water treatment costs and health outcomes related to waterborne diseases.
- **Intervention Data:** Gather data on the costs associated with the Faircap filter, including purchase, distribution, maintenance, and any ancillary costs.

2. Cost Analysis:

- **Direct Costs:** Calculate the direct costs of implementing the Faircap filter, including procurement, transportation, training, and maintenance.

3. Effectiveness Measurement:

- **Health Outcomes:** Measure health outcomes such as the incidence of waterborne diseases before and after the intervention.
- **Water Quality:** Assess the quality of water treated by the Faircap filter in terms of turbidity, contamination levels, and user compliance.

4. Incremental Cost-Effectiveness Ratio (ICER):

- Calculate the ICER by comparing the difference in costs and health outcomes between the Faircap filter and chlorination methods.

5. Data Analysis:

- Use mWater (data collection tool) to analyze the collected data and perform sensitivity analyses to account for uncertainties and variations in data.

6. Reporting:

- Prepare a detailed report summarizing the findings, including cost comparisons, health outcomes, and recommendations for scaling up the intervention.

2. Acceptability Analysis

Objective: To assess the acceptability of the Faircap Family filter among users in the target communities, focusing on user satisfaction, ease of use, and cultural fit.

1. Data Collection:

- **Surveys:** During the project implementation both missions conducted field visits to the selected households using the Faircap filter to gather qualitative and quantitative data on user experiences. (The results of the interviews were uploaded in mWater – and open-access data management platform tool).
- **FGDs:** if necessary, organise discussions remotely and provide support to the field to conduct focus group discussions of sampled Faircap filter households.
- **Key Informant Interviews (KII):** If necessary, organize discussions remotely with the field teams (AAH missions in Somalia and Niger and local partners).

2. Acceptability Metrics:

- **User Satisfaction:** Measure overall satisfaction with the filter, including aspects such as taste, convenience, and perceived effectiveness.
- **Ease of Use:** Assess the ease of installation, maintenance, and daily use of the filter.
- **Cultural Fit:** Evaluate how well the filter integrates into existing water usage practices and cultural norms.

3. Data Analysis:

- **Quantitative Analysis:** Use statistical methods to analyze survey data, focusing on key metrics such as satisfaction scores and usage rates.
- **Qualitative Analysis:** Perform thematic analysis of interview and focus group data to identify common themes and insights.

- Use mWater (data collection tool) to analyze the collected data and perform sensitivity analyses to account for uncertainties and variations in data.

4. Reporting:

- Prepare a comprehensive report detailing the findings of the acceptability analysis, including user feedback, common challenges, and recommendations for improving the filter's design and implementation.

EXPECTED OUTPUTS

1. Cost-Effectiveness Analysis:

- **Unit Cost Calculation:** Determine the cost per liter of treated water using the Faircap filter and compare it to the cost of water treated with chlorination products (aquatabs) and also other alternative filters in the 2 project locations.
- **Economic Viability:** Evaluate the long-term economic benefits of adopting the Faircap filter, considering factors such as initial purchase costs, maintenance, and potential savings from reduced disease burden.
- **Lifespan Assessment:** Analyze the average lifespan of the filter in field conditions and its impact on cost-effectiveness.

2. Acceptability Analysis:

- **User Feedback:** Collect and analyze feedback from households using the Faircap filter to gauge their satisfaction with the product's effectiveness, ease of use, and maintenance requirements.
- **Cultural and Contextual Fit:** Assess how well the filter integrates into the daily lives of users, considering cultural preferences and local water usage practices.
- **Comparative Analysis:** Compare user acceptance of the Faircap filter with that of traditional chlorination methods to identify any significant differences in preference and compliance.

The findings from this study will provide critical evidence to support the decision-making process regarding the sustained adoption of the Faircap filter. By demonstrating the filter's cost-effectiveness and high user acceptability, the project aims to advocate for its broader implementation in similar humanitarian contexts. The results will also inform potential improvements to the filter design and distribution strategies, ensuring that the intervention delivers maximum impact and value for money.

TIMEFRAME

December 2024 (1 month) - To be completed by 25th December 2024.

The first drafts should be submitted 20 days after the signature of the contract. The drafts will be submitted for revision from AAH and the comments will be addressed in a timeframe of 5 natural days.

AAH has the right to request amendments until the deliverables have the content specified in these ToR.

LOCATION

The consultant will conduct all work remotely, ensuring it is easily reachable for regular communication and coordination. They must have a stable internet connection to facilitate seamless data sharing and virtual meetings with the project team.

SKILLS AND QUALIFICATIONS

The person selected for this work should have the following requirements:

- Academic degree in business development, finance, or related analytical discipline preferred
- Minimum of 5 years of professional experiences in financial management with planning, forecasting, and financial analysis
- Experience conducting market research, including analysing and synthesising research reports and conducting primary research
- Added value: experience with Water and Sanitation and Humanitarian projects.
- Excellent spoken and written communication; confidence in interviewing different stakeholders
- Fluency in written and spoken English and French is an asset
- Previous experience working with other INGOs is an asset.

APPLICATION

Kindly submit a technical and financial proposal. The technical proposal should include your CV and a max 3-page document stating how do you meet the criteria for this work, methodology, timetable, and availability. The financial proposal should include an all-inclusive fee for this specific work, including VAT and any other expenses carried out by the consultant/team of consultants.

Applications to be sent to the following email address: lfpmoreau@accioncontraelhambre.org; emleitao@accioncontraelhambre.org and eufernandez@accioncontraelhambre.org with the subject "Consultancy cost-effectiveness and acceptability study", no later than **10th December 2024**.