

Water, Sanitation and Hygiene (WASH) in Fisheries and Aquaculture

Rapid Needs Assessment Tool

USER GUIDE

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ABBREVIATIONS

COVID-19	coronavirus disease 2019	SOP	standard operating procedure
DHS	demographic and health survey	SOWC	State of the World's Children
F&A	fisheries and aquaculture	TTL	task team leader
FAO	Food and Agriculture Organization	UN	United Nations
HMIS	health management information system	WASH	water, sanitation, and hygiene
MICS	multiple indicator cluster survey	WHO	World Health Organization
SDG	Sustainable Development Goal		



Introduction

OZIEL GOMEZ / UNSPLASH

Fish and fish products are a key component to a healthy diet for over a billion people (WHO 2016). The fisheries and aquaculture (F&A) sector plays an important role in food security and nutrition, poverty eradication, equitable development, and sustainable resource utilization. World fish production reached 179 million tons in 2018. Of the 156 million tons produced for human consumption, 52 percent came from aquaculture and the remaining from capture fisheries (FAO 2020).

Fish producers should make sure that their products are safe to eat and of high quality. Food safety and quality can be compromised during the production stage, but the occurrence of most foodborne diseases are associated with a lack of hygiene during postharvest activities (WHO 2016).

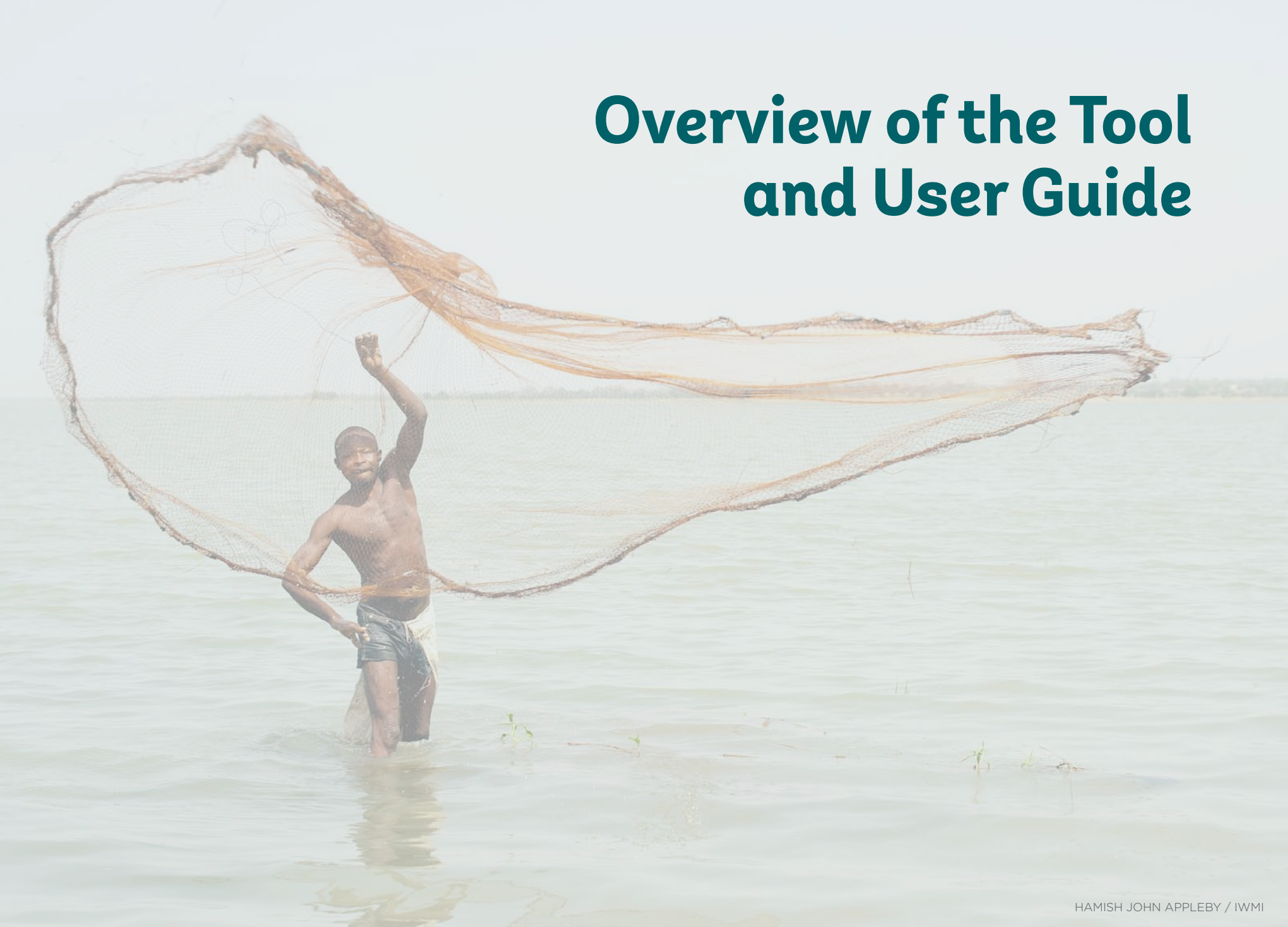
Water supply, sanitation, and hygiene (WASH) infrastructure and practices are essential to ensure fish health, provide safe fish and fish products, and reduce the spread of antimicrobial resistance. Implementation of WASH services are key to the health of workers in the F&A sector. Large F&A operators often follow international standards or guidelines for best practices that integrate these standards of water management, hygiene, and sanitation, but small-scale producers often lack the means to produce safe and high-quality fish (WHO 2016).

The Sustainable Development Goals (SDGs) encourage industries to address the issue of WASH through the primary goal of universal access to water and sanitation by 2030 (Goal 6). Ensuring that fish and aquaculture products are safe to eat and accessible to low-income populations is part of the solution to achieving SDG2: to end hunger and achieve food security and improved nutrition (UN 2015). Ensuring that gender-differentiated roles and WASH-related practices are considered at different stages and types of the F&A value chain and among geographies is critical to effectively address WASH challenges (Goal 5).

WASH interventions can help prevent the spread of coronavirus disease 2019 (COVID-19). Even though, as of this writing, COVID-19 does not affect fish directly and is not transmitted through fish consumption, people in the sector can still be at risk and be impacted by COVID-19.

The objective of this rapid needs assessment is to assist World Bank Group task team leaders (TTLs) to identify needs and gaps in the design and implementation of WASH measures in the F&A sectors for their project area. This user guide outlines the processes to conduct a rapid needs assessment directed at small-scale operators in low- and middle-income countries. Once TTLs identify the gaps, they can use the *Guidance Note on WASH in Fisheries and Aquaculture* (World Bank 2022) to determine which interventions can improve product quality and the health of the communities.

Overview of the Tool and User Guide



HAMISH JOHN APPLEBY / IWMI

The rapid needs assessment aims to understand the spectrum of needs and risks, estimated severity of conditions, and existing capacities and resources. The assessment covers all stages of the F&A value chain and F&A communities. It is aimed at three WASH components: (a) water supply and quality, (b) waste and waste management, and (c) sanitation and hygiene and their respective intervention areas (see table 1).

The tool kit consists of a checklist and a user guide. The checklist is based on good practices identified in the guidance note, which uses international standards and best practice guidelines. TTLs will use the tool kit to collect and analyze information about the needs of the target group. This will help determine gaps between the current situation and the desired practices as outlined in the checklist. The checklist can be used to collect vital information for the World Bank Group on the effectiveness of interventions, if the needs assessment is performed before and after projects.

Table 1 WASH components covered and their respective intervention areas

WASH component	Intervention area
Water supply and quality	Potable water supply
	Assessment of intake water
	Filtration and disinfection of intake water
	Use of quality ice
	Use of alternatives to ice (gel packs)
Waste and wastewater management	Feed management
	Wastewater treatment technologies
	Waste management
Sanitation and hygiene	Site selection and design
	Cleaning and disinfection
	Antifouling and cleaning of nets
	Personal hygiene
	Worker's health and safety system
	COVID-19 prevention
	Sanitation facilities
	Menstrual hygiene management
	Quarantine facilities and measures
	Restriction of traffic/movement
	Use of high-quality seed
	Stock immunity
	Predator and pest control
	Disease outbreak control
	Storage and transportation
	Fish processing and food handling

The checklist lists elements for each intervention area. The applicability of the element is indicated through the following icons:



Applicable to **fisheries**



Applicable to **aquaculture**



Applicable to **postharvest activities**



Applicable to **community**

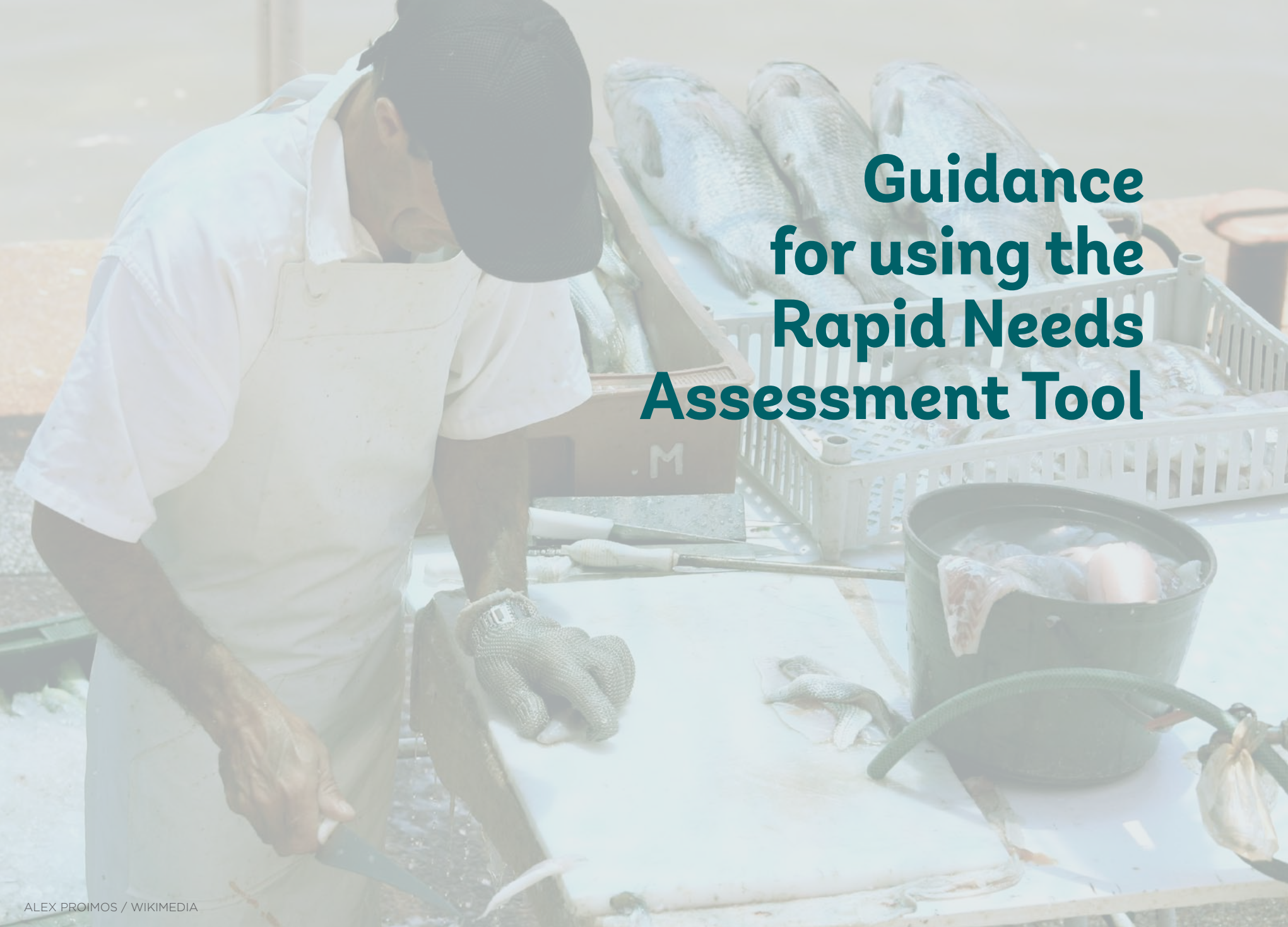
Thus, each project may focus on different elements. The proposed verification methods can guide the assessor in how to check the element (e.g., observation, records, documentation, or interview). The assessment part has columns in which the score can be ticked and columns for justification and reference.

The user guide facilitates the use of the rapid needs assessment tool on WASH in F&A and aims to:

- ▶ Promote the understanding of the tool and enable users to apply it independently.
- ▶ Provide guidance on what information to collect.

The checklist and user guide should be used with the guidance note, which often elaborates on the elements to check. For further information about the linkages between WASH, F&A, and human health, please refer to the *Rapid Desk Review: WASH in Fisheries and Aquaculture* (World Bank 2021).

The tool is not intended to be comprehensive. Detailed guidance varies by location. Users should refer to standards and policies established by local authorities. Tools and guidance can be adapted to the specific country context, project, and stakeholder needs.



Guidance for using the Rapid Needs Assessment Tool

ALEX PROIMOS / WIKIMEDIA

The length and depth of the rapid needs assessment depends on available time, budget, and resources and the project's size. To determine the assessment's timeline, a defined scope should be developed, including range of expertise required. The scope can be used to recruit TTLs and other staff and consultants. The main procedures in the assessment process are preparation, methods, and analysis and reporting.

Assessment preparation

- ▶ Obtain the latest version of the rapid needs assessment checklist and user guide.
- ▶ Review the checklist.
- ▶ Collect pertinent reference materials (see table 2). Examples may include:
 - ▶ Situation analyses
 - ▶ National surveys, such as the demographic health survey (DHS) and multiple indicator cluster survey (MICS)
 - ▶ Local and national standards and legislation
 - ▶ International standards and best practices
- ▶ Consult with thematic experts, as needed, to fill any remaining information gaps; experts may include:
 - ▶ Health specialists
 - ▶ Gender specialists
 - ▶ F&A specialists

Table 2 Reference materials

Category	Data source (examples)
WASH-related health statistics	HMIS, DHS
WASH statistics	DHS, SOWC
Fish catch and aquaculture production data	Department of fisheries/local authority
Water quality data	Environmental agency/ministry
Standards and legislation	Government (environment, fisheries), bureau of standards
Previous projects	FAO, WHO, UN, local/national authorities

Note: DHS = demographic and health survey; FAO = Food and Agriculture Organization; HMIS = health management information system; SOWC = State of the World's Children; UN = United Nations; WHO = World Health Organization.

- ▶ Determine assessment sites based on scope, size, and aim of the project.
- ▶ Apply for local and/or international review board approval (if applicable).
- ▶ Select assessors who have sufficient knowledge and skills, are familiar with cultural norms, and can speak the local language. In addition:
 - ▶ Assessors should have at least five years of experience in F&A.

- ▶ As far as possible, ensure gender balance, ethnic diversity, and complementary and multidisciplinary skill sets.
- ▶ Provide assessors with clear instructions on responsibilities and work objectives.
- ▶ Assessors should know how to engage with communities appropriately and how to react to emergency and disaster situations.
- ▶ Assessors will need to be well-versed in the assessment methods they will carry out, such as interviews, observations, and focus group discussions.
- ▶ Prepare the rapid needs assessment checklist, as needed:
 - ▶ Select the correct checklist(s) needed for your project (fisheries, aquaculture, postharvest and/or community).
 - ▶ Complete the Reference column with the guideline, standard, or regulation against which the assessors should evaluate.
- ▶ Gather required materials and supplies. Resources required may include:
 - ▶ Checklist with pertinent standards and best practices filled in.
 - ▶ Camera to collect proof or justification.
 - ▶ GPS to mark location of vessel, facility, or community.
 - ▶ Water quality test kits and measurement equipment to verify water quality.
 - ▶ Hygiene and moisture test kits.
 - ▶ Temperature probes and timers.
 - ▶ Basic supplies such as pens, paper, and clipboards.
- ▶ Train assessors (and supervisors, as needed).
- ▶ Plan logistics.

Assessment methods

To prepare the checklist, write down information on the company or community where the rapid needs assessment will be carried out, including the company's or community's name, persons interviewed, date, location, and type of facility.

Five main verification methods are recommended in the checklist: laboratory tests, record and document reviews, key informant interviews, observations, and focus group discussions. In addition, a gender responsive needs assessment is critical to accurately reflect the perspectives and opinions of women and men participants, who represent their community.

Laboratory test results

Laboratory tests should be conducted to determine, for example, water and soil quality. Assessors will verify these test results at the facility. If these are unavailable, samples should be taken and a laboratory equipped with the necessary equipment should conduct the testing and obtain the required equipment and supplies.

Record and documentation reviews

Various records may serve as historical proof. Assessors will need to be trained in what the required records are referring to, what they look like, and where to find pertinent information. We suggest taking photographs of the necessary records. Documents such as standard operating procedures (SOPs), work instructions, protocols, and plans should be reviewed as well.

Direct observations

Direct observation is a data gathering technique that may include watching a process, behavior, characteristic, or interaction; providing a snapshot of the conditions or a situation, such as observing conditions and features from a range of viewpoints and places; and walking around the premises and using all senses to get a good overview of the conditions. Some activities are conducted at a certain time or day, so this should be considered when doing a site visit. Observations often lead to further questions that can be answered by interviews or discussion groups and cross-checking answers with questions.

Key informant interviews

For some elements, record reviews and observations are not sufficient. Assessors will need to be trained in conducting key informant interviews, and semistructured interview protocols may need to be created (box 1). Key informant interviews can be used to verify historical records or gather additional insight. Depending on the element, interviews may be conducted with business managers, staff, or community members. Low participation rates of 20 percent or 30 percent by one gender or age group can skew findings significantly. If there is difficulty attracting female participants, they may be facing barriers or obstacles to participation, including the location or time of the interviews. It is strongly recommended to ensure gender balance and age groups when conducting key informant interviews. If applicable, minority groups, such as the physically disabled, should also be included. They can provide different aspects about procedures, access, risks, priorities, vulnerabilities, and capacities at the business or community level.

Box 1 INTERVIEW TECHNIQUES

Share these and similar techniques with assessors.

- ▶ Prepare yourself well.
- ▶ Introduce yourself and the aim of the interview.
- ▶ Ensure confidentiality agreements or nondisclosure agreements are in place, if needed.
- ▶ Ensure privacy of the interview premises.
- ▶ Ask open-ended questions and avoid leading questions.
- ▶ Show respect based on the social and cultural context and the appropriate level of formality.
- ▶ Pay attention and use active listening techniques, even if what the respondent is saying is not immediately relevant.
- ▶ Be objective.
- ▶ Be aware of nonverbal communication.
- ▶ Repeat or summarize answers.
- ▶ Be thankful and ask respondents if they have anything to add or have questions.

Ensure respondents are given information on the outcome of the assessment.

Focus group discussions

Focus group discussions are especially useful for quickly obtaining a range of viewpoints. They typically contain four to eight individuals, enough people to ensure a lively discussion but small enough that voices are not lost (WHO 2020). Views should be sought from a balanced number of women and men, different age groups, minority groups, and the physically disabled, as relevant.

Assessors will need to be trained in conducting focus group discussions, and protocols may need to be created. For example, women speak much less in group settings when men are present (Liamputtong 2002). Single-sex focus groups can help understand differences in perspectives between men and women, and some topics may be best discussed with a female-only group (e.g., menstrual hygiene).

A focus group discussion should be held in a comfortable location; organizers should try to minimize interruptions and encourage an informal atmosphere. There should be an agreement and understanding in the group on the reason for the discussion. Effective notes should be taken, or the discussion should be recorded (with permission).

Gender responsive assessment

Undertaking gender analysis to identify gender-specific WASH-related challenges is a systematic attempt to identify key issues contributing to gender inequalities and possible solutions. Prepare assessors with these tasks to follow:

- ▶ Identify the WASH needs, priorities, and risks of men and women workers in the F&A sector, depending on the country context and which stage of the value chain they are in.

- ▶ Assess the gender division of tasks in the target groups among productive, reproductive, and community activities and analyze how these relate to health challenges.
- ▶ Analyze social norms affecting men's and women's access to WASH services and available infrastructure among the stages of the F&A value chain.
- ▶ Assess behavioral norms and infrastructure and how these differ by gender.
- ▶ Ask questions to men and women to assess their perspectives, even on questions that deal with women's issues (such as menstrual hygiene). For instance: "What do you think are the most serious issues facing women in the F&A sector?"
- ▶ Collect and analyze quantitative and qualitative data on decision-making processes and participation of women and men in WASH-related activities.

Scoring

Each applicable element of the checklist will be assessed (according to the predetermined reference, column M) and scored according to the following three-level rubric: (a) adequate (low risk); (b) minor improvements needed (medium risk), or (c) inadequate (high risk). The scores are explained in table 3.

The assessor should justify the score with an explanation. If applicable, the criteria should be included as a reference (SOP, best practice guidelines, regulation). Exact criteria are not provided because they can vary among countries and project areas. National and local standards and regulations should be followed. In case these are absent, international best practice guidelines can be followed (e.g., WHO guidelines).

Table 3 Scores and description of risk categories based on good practices in checklist

Score	Risk	Description	Examples
Adequate	Low	Business or community follows good practices.	Procedures are in place and implemented, laboratory test results show variables are in range, infrastructure is available, well-maintained, and clean.
Minor improvements required	Medium	Business or community does not comply with good practices but is not likely to reduce establishment's ability to meet acceptable hygiene, food safety, worker's health, and environmental requirements.	Equipment not meeting correct standards. There are minor sanitation or minor construction deficiencies (broken drainpipe or water tap for hand washing not functioning optimally).
Inadequate	High	Business or community does not implement good practices so that if the situation were allowed to continue it may result in unsafe products, reduced fish health, pollution, and worker's health implications.	Ineffective pest control (rats are seen), inadequate cleaning program, no toilets available, no effluent treatment, or no use of ice or alternatives.

Analysis

The method of analysis may vary according to the needs of the project and available budget and other resources. Typically, the rapid needs assessment is used to qualitatively evaluate the gaps between the current situation and the desired outputs and outcomes. The results include consolidated data collected through the checklists and the background data. These data should be summarized, detailing key observations and findings. Using the results, gaps such as missing infrastructure or technology, processes, practices, or skills can be identified.

The gaps can be filled by implementing interventions. High-risk gaps should be prioritized, followed by elements that need improvement. Depending on the project goals, intervention areas might be prioritized using the reason for the

gap and the extent to which the intervention could be effective. Expectations of change of gaps over time should be considered. Feedback from stakeholders on the results of the needs assessment may help prioritize interventions.

Reporting

Reporting of findings is an important aspect of the rapid needs assessment, and TTLs should be as detailed as possible. This will benefit the project and can help identify further improvements in the needs assessment tool. Reporting should be performed on the checklist, which should be kept as a controlled document in a document management system.

Standardization of the reporting template is required to ensure that the quality of the information is consistent. Other important aspects of reporting include:

- ▶ Review and consensus among the TTLs of the outcomes of the report. TTLs involved in the project should sign off on the report prior to submission.
- ▶ Number of items (e.g., SOPs, records, observations, interview answers) checked. For each criteria, the number of items checked helps the reader or project team leader determine the depth of the assessment.
- ▶ Justification of the assessment score should be described in detail, especially in the first few years, so a review process can identify and correct weaknesses.
- ▶ Novel interventions may be found when conducting the rapid needs assessment that are effective at reducing WASH-related risks. These interventions should be documented in the final report in detail (if no commercial “told

in confidence” or privacy issues) so they can be applied to other cases.

- ▶ Recommendations on potential improvements and implementation of WASH interventions will be a crucial outcome of the needs assessment for any World Bank Group project. Subject matter experts may need to be involved, depending on the complexity of the intervention.

It is recommended that the report is presented in a table (see table 4).

Results should be communicated to the participants and other stakeholders in a report or stakeholder meeting. Feedback should be recorded and integrated in the final report.

Table 4 Reporting template

Good practice recommendation checkpoint	Number of items checked	Assessment	Justification	Intervention recommendation
1.1	4	Minor improvement needed	Potable water comes from improved sources but does not have adequate disinfection method applied or monitored	▶ Monitor effectiveness of disinfection using laboratory testing and testing for chlorine ▶ Reassess and install adequate disinfection equipment (inline chlorine dosing)
...	...	...	...	▶ ...

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