

# CODEx ALIMENTARIUS COMMISSION



Food and Agriculture  
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Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: [codex@fao.org](mailto:codex@fao.org) - [www.codexalimentarius.org](http://www.codexalimentarius.org)

Agenda item 6

CX/FH 22/53/6 Add.1

November 2022

## JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FOOD HYGIENE

Fifty-third Session  
San Diego, United States of America  
29 November – 2 December 2022 and 8 December 2022

### Proposed Draft Guidelines for the Safe Use and Reuse of Water in Food Production and Processing Comments in reply to CL 2022/48/OCS-FH

*Comments of Argentina, Australia, Canada, Colombia, Costa Rica, Cuba, Egypt, India, Iraq, Japan, Kenya, Malaysia, Morocco, Peru, Republic of Korea, Singapore, Thailand, United Kingdom, Uruguay, USA and Consumer Goods Forum, FAO, Food Industry Asia, ICBA, IDF/FIL*

#### Background

1. This document compiles comments received through the Codex Online Commenting System (OCS) in response to CL 2022/48/OCS-FH issued in September 2022. Under the OCS, comments are compiled in the following order: general comments are listed first, followed by comments on specific sections.

#### Explanatory notes on the appendix

2. The comments submitted through the OCS are hereby attached as **Annex I** and are presented in table format.

**GENERAL COMMENTS**

<p>Whether there are any definitions missing and if so to provide proposed text for any missing definitions.</p> <p>Regarding the missing definitions about active and passive management, there is agreement to work together on them. To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh produce that is cooked or processed by the consumer or the food business operator.</p> <p>The change is not shown in Table 1. If this proposed change pertains to water in contact with the edible portion, there would be agreement for the columns reused water untreated, and surface and groundwater of unknown quality To indicate a preference for the term “water risk assessment” or “water risk analysis.”</p> <p>Option 1: [Water risk assessment] To indicate a preference for the term “water risk assessment” or “water risk analysis.”</p> <p>Option 1: [Water risk assessment] This definition is preferred because it is clear that the document addresses identifying potential biological hazards, through an Assessment of the water source that takes into account the main aspects linked to potential hazards, e.g.: origin of the water source, possible control treatments, history of use, end use of the food, etc. Agree on the additional wording proposed in the second part of paragraph 30 concerning the implementation of simple complementary operational monitoring in small-scale systems.</p> <p>There is agreement with the text, but we propose eliminating the phrase “Since the results of such (verification) testing are not available right away.” , to clarify that it refers to a recommendation for use in a complementary way, which does not replace microbiological testing. The paragraph would read as follows:</p> <p>30. It is recommended that the quality of the water used in packing establishments be controlled, monitored and recorded by testing for indicator organisms and/or food-borne pathogens. It is recommended to carry out simple complementary operational monitoring such as rapid water quality testing by testing turbidity, chlorine residuals or visual observation. This last one is of particular importance in small-scale systems where the frequency of verification testing is typically low. Evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document.</p> <p>The decision tree (DT) tool is considered appropriate for the development of the document. Determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is outside the scope of the document (e.g. paragraph 34).</p>	<p><b>Argentina</b></p>
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<p>Although the references to chemical hazards or their control are outside the scope of the document, we consider they are important to keep in the document given that the use of biocides in water treatment used in food processing is a common practice to avoid the risk of cross contamination. Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather if it would be useful to insert a cross-reference to Codex documents.</p> <p>The definition of HACCP should be maintained in the document adding a reference to the definition (see General Principles of Food Hygiene (CXC 1-1969)). To indicate a preference for option 1 or 2 for the definition of “water fit for purpose.”</p> <p>Option 2 is preferred. To agree to the modifications proposed to the definition of “fresh produce” (see section on Definitions in Annex I) and to decide where to put it (in the general part or in Annex I).</p> <p>There is agreement on the definition of fresh produce in Annex I and we suggest including it in the definitions of the general part of the guidelines, for the sake of order in the document. To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition.</p> <p>Maintain what is stated in the second item, section a). Whether there is agreement with the definitions currently included in the document.</p> <p>Yes, there is agreement with the definitions found in the document. To indicate if the scope of the annex is the most appropriate.</p> <p>No comments. To decide if the annex requires further description of the different types of source water to mirror the guidance provided in annex I.</p> <p>No comments. To determine whether the proposed DTs are useful for the proper use of water in the process.</p> <p>No comments.</p>	
<p>Australia's preference is to wait for the noted JEMRA reports to be published so these are available for reference and inclusion of the dairy sector Annex so the text is more complete.</p> <p>Australia supports Supports establishment of an EWG for development of the dairy sector Annex for consideration by CCFH54.</p>	<p><b>Australia</b></p>
<p>ii. specifically provide input on the following:</p> <p>b) As regards the fresh produce annex specific input is required in order:</p>	<p><b>Canada</b></p>

<p>Comment on bullet number 2 - It seems relevant to maintain in this context. It is a potential chemical hazard that may result as part of a control measure used to address a biological hazard.</p> <p>Comment on bullet number 3 - The tools are useful.</p> <p>However, they are all using different terminologies which make them harder to understand.</p> <p>For example, the figure included in paragraph 58 (page 18) talks about medium and high frequency testing while illustration 3 (page 21) talks about low and medium sampling and testing frequency.</p> <p>Is the medium frequency testing in both cases the same?</p> <p>Comment on bullet number 4 - The additional wording adds value to the paragraph but makes an assumption related to all small scale systems.</p> <p>Comment on bullet number 5 - In Table 1, we only see low risk for fresh produce that is cooked or processed by the consumer or the food business operator.</p> <p>Please clarify for what type of water source is medium risk proposed.</p> <p>If Medium Risk is applied to water contact with edible portion for reuse water (untreated) and surface and ground water of unknown quality, we agree with change.</p> <p>c) As regards the fishery sector annex specific input is required in order:</p> <p>Comment on bullet number 2 - Support adding further description of different types of source water.</p> <p>Comment on bullet number 3 - Support to keep the proposed DTs.</p> <p>DTs for On board processing and On shore processing – basically all Y/N decisions lead to Vp.</p> <p>It could be more clear in the figure that these decisions result in different levels of risk of Vp (maybe include an arrow beside the Vp boxes to indicate increase/decrease to Vp load and higher or lower risk)</p> <p>These decision tree figure images should be reworked for added visual clarity.</p>	
<p>a) The definitions included are deemed consistent with the purpose of the draft guidelines.</p> <p>We propose maintaining the definitions including HACCP system and also associating the Codex reference documents.</p>	<p><b>Colombia</b></p>
<p>GFSI POSITION ON THE DRAFT OF THE GENERAL PART OF THE GUIDELINES FOR THE SAFE USE AND REUSE OF WATER IN FOOD PRODUCTION</p>	<p><b>Consumer Goods Forum</b></p>

November 2022

GFSI would like to thank the Chair and Co-Chairs of the EWG for their ongoing efforts on this important work. GFSI supports the advancement of these guidelines. GFSI also looks forward to consideration of the proposed dairy sector annex at CCFH54.

GFSI offers the following comments on specific aspects of Appendix 1 of this draft.

#### DEFINITIONS

##### Water fit for purpose

GFSI prefers Option 2. While the original wording is sufficient, Option 2 provides greater clarity around the notion of 'Water Risk Assessment'. The scope and vision of Option 1 is much larger than is warranted, based on the Terms of Reference.

(Option 1: Water risk assessment ; Option 2: Water risk analysis

Option 1 is preferred to Option 2. The use of the term 'risk assessment' better applies to the evaluation, or assessment, of the process(es) in place for the sourcing, use, and reuse of fit for purpose water within food production. The term 'risk analysis' suggests a larger scope than 'risk assessment' given the inclusion of risk assessment, management and communication.

##### Clean water

GFSI supports this definition.

##### First use water

GFSI is comfortable with the definition of this additional term. However, source/reference information would be beneficial.

##### Potable water

GFSI supports this definition.

##### Reuse water

GFSI supports this definition.

##### Reclaimed water

GFSI supports this definition.

##### Recycled water

GFSI supports this definition.

##### Recirculated water

GFSI supports this definition.

##### Risk assessment

<p>GFSI supports this definition.</p> <p>Reconditioning GFSI supports this definition.</p> <p>Water Sourcing GFSI supports this definition.</p> <p>Food hygiene system GFSI suggests removing this definition given that it is located in the General Principles of Food Hygiene (CXC 1-1969) as referenced within the Use Section of this draft.</p> <p>HACCP System GFSI suggests removing this definition given that it is located in the General Principles of Food Hygiene (CXC 1-1969) as referenced within the Use Section of this draft.</p>	
<p>To agree to the modifications proposed to the definition of “fresh produce” (see section on Definitions in Annex I) and to decide where to put it (in the general part or in Annex I).</p> <p>*[Fresh produce: Any fruit, nut, fungi and vegetable that is likely to be sold to consumers in a raw form, either unprocessed or minimally processed (e.g., washed, peeled, cut or otherwise physically altered from its original form but remaining in a fresh state), and that is generally considered perishable regardless of it being intact or cut from root/stem at harvest]</p> <p>Re: Costa Rica thinks that this definition should be in Annex I Fresh Produce since it is exclusive to the section and therefore it is more useful to be included in this section. To indicate a preference for the term “water risk assessment” or “water risk analysis.”</p> <p>Costa Rica supports the definition of risk analysis, since it considers that all the stages of analysis are taken into account: assessment, management and communication, and not just risk assessment.</p> <p>Option 2: [Water risk analysis]: A systematic evaluation of the water source can be used to identify potential microbiological hazards, available control measures, and other risk factors (e.g. end use of the food product, history of use, etc.) to establish appropriate risk mitigation practices (e.g. treatment options and their efficacy) to determine if the water can be fit for purpose. Determine whether the proposed DTs are useful for the proper use of water in the process.</p> <p>Costa Rica supports maintaining the DTs with the respective examples for facilitation and understanding of the Annex. To evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document.</p> <p>Costa Rica supports maintaining the tools to facilitate comprehension of the document and decision making.</p>	<p><b>Costa Rica</b></p>

<p>To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh produce that is cooked or processed by the consumer or the food business operator.</p> <p>Costa Rica gives consideration to maintaining the medium low in Table 1 since it is fresh produce that the consumer or operator cooks or processes. To indicate if the scope of the annex is the most appropriate.</p> <p>Costa Rica agrees with the proposed scope for this Annex of Fishery Products. To indicate a preference for option 1 or 2 for the definition of “water fit for purpose.”</p> <p>Costa Rica agrees with option 2 of water fit for purpose, because it finds it concrete and clear in its meaning. Option 2: [Water fit for purpose]: Water which is determined to be safe for an intended purpose through a water risk assessment.] To decide if the annex requires further description of the different types of source water to mirror the guidance provided in annex I.</p> <p>Costa Rica agrees with the definitions just the way they are suggested in the Annex of Fishery Products. Whether there is agreement with the definitions currently included in the document.</p> <p>Costa Rica agrees with the definitions just the way they are proposed. To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition.</p> <p>Costa Rica does not think it necessary to define this since in the code of practices: GENERAL PRINCIPLES OF FOOD HYGIENE (CXC 1-1969) the terms are not mentioned. To agree on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complementary operational monitoring in small-scale systems.</p> <p>Costa Rica proposes modifying the paragraph as shown below:</p> <p>“Since the results of such (verification) testing are not available right away, it is recommended to carry out simple complementary operational monitoring such as rapid water quality testing through an analysis of chlorine residuals. This last one is of particular importance in small-scale systems where the frequency of verification testing is typically low.” To determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is outside the scope of the document (e.g. paragraph 34).</p> <p>Costa Rica suggests maintaining the texts that reference chemical hazards or their control and including it in the scope. Furthermore, it recommends including the definition of the word biocide used in this Annex.</p>	
<p>Cuba supports the comments proposed for the Guidelines document for the use and reuse of water in food production and processing that refers to CL 2022/48/OCS-FH.</p>	<p><b>Cuba</b></p>
<p>Aside from the specific definitions where we have provided our comments, we are agreeable to the other definitions in this draft.</p>	<p><b>Food Industry Asia</b></p>

Agree without comments	<b>Iraq</b>
CCFH should proceed with this Annex taking into consideration of the progress of work on the General section and other Annexes as well as JEMRA scientific advice based on CCFH 52 conclusion(e.g., critical review of examples, examples of decision-support systems currently included in the document, recommendations on how to adapt examples to different countries including those with water scarcity and/or limited resources, examples of specific risk mitigation strategies, etc.).	<b>Japan</b>
Kenya supports the progression of the draft guidelines as recommended by CCFH52 to the next Codex standard elaboration processes. Rationale: The guidelines are useful in streamlining fresh produce, and fishery products in terms of water use or re-use.	<b>Kenya</b>
Malaysia appreciates the work of the Electronic Working Group and the Chair, Honduras and co-chairs, Chile and the European Union on the Draft Guidelines for the Safe Use and Re-use of Water in Food Production and Processing. Malaysia also appreciates the opportunity to provide comments on the draft guidelines	<b>Malaysia</b>
Cross-reference is preferred to ensure there would be no discrepancies if revisions are made.	<b>Morocco</b>
To agree to the modifications proposed to the definition of "fresh produce" (see section on Definitions in Annex I) and to decide where to put it (in the general part or in Annex I).  We agree with the modifications and it should be in annex 1. To agree on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complementary operational monitoring in small-scale systems.  We agree with the proposed additional text. To determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is outside the scope of the document (e.g. paragraph 34).  We agree and the texts referencing chemical hazards should be maintained. To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh produce that is cooked or processed by the consumer or the food business operator.  We agree with the changes introduced for ready-to-eat produce. Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather insertion of a cross-reference to the appropriate Codex documents.  Regarding the definitions: The HACCP system and the Food Hygiene system should be eliminated and instead a cross-reference to the appropriate Codex documents should be inserted. To evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document.  The decision trees are appropriate for the development of the document. Whether there is agreement with the definitions currently included in the document.	<b>Peru</b>



<p>No</p> <p>In the definition of first-use water, the following examples: wastewater, effluents of sewage treatment plants are not consistent with the proposed definition.</p> <p>In the definition of reclaimed water, there must be specified “examples” to understand what is being referred to regarding: “(...) water removed that comes from a food material.”</p> <p>In the definition of recirculated water the following must be added: “(...) without replenishment, treatment, or prior conditioning.” In addition, the definitions of recycled and recirculated water are similar, which is why no substantial difference is noted.</p> <p>To indicate a preference for option 1 or 2 for the definition of “water fit for purpose.”</p> <p>Option 1.</p> <p>To indicate a preference for the term “water risk assessment” or “water risk analysis.”</p> <p>We prefer risk assessment.</p> <p>To indicate if the scope of the annex is the most appropriate.</p> <p>Yes.</p> <p>To decide if the annex requires further description of the different types of source water to mirror the guidance provided in annex I.</p> <p>Yes it is required.</p> <p>Whether there are any definitions missing and if so to provide proposed text for any missing definitions.</p> <p>YES</p> <p>However, specification is requested for the term captured water, which is mentioned in the definition “sourcing system”</p> <p>To determine whether the proposed DTs are useful for the proper use of water in the process.</p> <p>Yes, agreed.</p>	
<p>Singapore would like to thank Honduras, Chile and the European Union for putting together this document summarizing the comments received on the Jun 2022 eWG consultation paper.</p>	<p><b>Singapore</b></p>
<p>To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition.</p> <p>It should be defined if it remains in the DT of Figure 1.</p> <p>To indicate if the scope of the annex is the most appropriate.</p> <p>Uruguay agrees with the proposed scope.</p> <p>To agree on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complementary operational monitoring in small-scale systems.</p>	<p><b>Uruguay</b></p>

Uruguay agrees with the proposed paragraph.	
Whether there is agreement with the definitions currently included in the document.	
Uruguay agrees with the definitions where no comments are made	
To agree to the modifications proposed to the definition of “fresh produce” (see section on Definitions in Annex I) and to decide where to put it (in the general part or in Annex I).	
Uruguay agrees with the definitions. However Uruguay thinks that “nuts” should not be included.	
Consider the Proposed Draft Guidelines as shown in Appendix 1. The General Section, the annex on Fresh Produce, and the annex on Fishery Products and provide input.	
Uruguay appreciates the invitation to participate and agrees with the document overall. The comments are found in the document in Appendix 1.	
To indicate a preference for option 1 or 2 for the definition of “water fit for purpose.”	
Uruguay thinks option 1 is most appropriate.	
Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather insertion of a cross-reference to the appropriate Codex documents.	
Uruguay thinks that inserting cross-references to other Codex documents is more appropriate.	
To evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document.	
Uruguay thinks that the examples are appropriate.	
To decide if the annex requires further description of the different types of source water to mirror the guidance provided in annex I.	
Uruguay does not find it necessary.	
To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh produce that is cooked or processed by the consumer or the food business operator.	
Uruguay believes that the table submitted by JEMRA (MRA 33) should be maintained.	
To determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is outside the scope of the document (e.g. paragraph 34).	
Uruguay believes that texts referring to chemical hazards must be maintained.	
To determine whether the proposed DTs are useful for the proper use of water in the process.	
Uruguay believes that the decision tree is very useful.	
Whether there are any definitions missing and if so to provide proposed text for any missing definitions.	

<p>Uruguay believes that they are not necessary.</p>	
<p>To indicate a preference for the term “water risk assessment” or “water risk analysis.”</p>	
<p>Uruguay prefers the term “water risk assessment.”</p>	
<p>CCFH53 is asked to specifically provide input on the following</p> <p>a) Definitions in the General Section:</p> <ul style="list-style-type: none"> <li>o Whether there is agreement with the definitions currently included in the document</li> </ul> <p>The United States agrees with most of the definitions, but we have comments with respect to specific definitions as indicated.</p> <ul style="list-style-type: none"> <li>o Whether there are any definitions missing and if so to provide proposed text for any missing definitions</li> </ul> <p>The term “wastewater” is included throughout the document but is not defined. Thus, it is not clear what the source of this water is when the term is used. In Table 1 in the Produce Annex, the first water source type is “Reused water untreated;” in a previous version this column was “Wastewater (re-used water) untreated.” Thus, we question whether “wastewater” and “reuse water” (which in the definition includes reclaimed water from food, recycled water from food operations, or recirculated water in a closed loop system) are intended to be the same. We recommend that “wastewater” be defined if that term is to be used in the document.</p> <ul style="list-style-type: none"> <li>o Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather insertion of a cross-reference to the appropriate Codex documents</li> </ul> <p>It is acceptable to the United States to have either a cross-reference or to retain in the document the definitions of HACCP system and food hygiene system from the GPFH.</p> <ul style="list-style-type: none"> <li>o To indicate a preference for option 1 or 2 for the definition for water fit for purpose</li> </ul> <p>The United States prefers Option 1: [Water fit for purpose]: water that is determined to be safe for an intended purpose through an assessment of potential hazards, treatment options and their efficacy, control measures, history of use, and the end use of the food product.]</p> <p>Rationale: This definition provides clear direction on what to consider in determining whether water is fit for purpose; option 2 results in the need to consult a definition of “water risk assessment” to understand the definition.</p> <ul style="list-style-type: none"> <li>o To indicate a preference for the term water risk assessment or water risk analysis</li> </ul> <p>The proposed definition of “water risk assessment” goes beyond assessing risk, as it includes control measures to mitigate risk. Thus, the use of the term “water risk assessment” and the definition do not seem consistent with the definition of “risk assessment.” We still prefer using a term such as</p>	<p><b>USA</b></p>

“evaluation”, e.g., “water risk evaluation”. The definition proposed for water risk assessment or water risk analysis can apply with minor changes:

Water risk evaluation: A systematic assessment of the water source to identify potential microbiological hazards, other risk factors (e.g. end use of the food product, history of use, etc.) and available control measures to establish appropriate risk mitigation practices (e.g. treatment options and their efficacy) and to determine if the water can be fit for purpose.

Consequential editorial changes to section 1 (which would be minor) are provided in the specific comments.

o To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition

There is no need to define these terms in the definitions section, as they only appear in Figure 1. A footnote can be added to explain what they mean. (Note, “passive management” is explained in a box in the figure.)

b) As regards the fresh produce annex specific input is required in order:

o To agree to the modifications proposed to the definition of fresh produce (see section on Definitions in Annex I) and to decide where to put it (in the general part or in Annex I)

The United States believes that the proposed definition as modified is functional for this document. The term “fresh produce” is not used in the General Section, so the best place for the definition is in the annex.

o To determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is out of the scope of the document (e.g. paragraph 34)

The United States agrees that chemical hazards are out of the scope of CCFH and this document, and therefore prefers to eliminate the following sentence at the end of paragraph 34:

“The application of biocides should be followed by rinsing as necessary to ensure that chemical residues do not exceed levels established by the competent authority using overhead spray, not by an immersion tank without cross-contamination attention.”

Paragraph 41 should also be deleted:

“The final rinsing step should also minimize the residues of the biocides (e.g. disinfection-by-products) in the fresh produce coming from the washing tank.”

o To evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document

The United States believes the examples and decision tools are useful, but CCFH will need to determine whether those in Appendix 2 that were derived from sources external to Codex procedures (i.e., ILSI, LGMA, and the EU Commission) are appropriate for this document. The United States believes that these examples would be more appropriate in an informational document. However, if they are retained the United States recommends that all examples should be moved to an annex/appendix, not just the examples that have been moved; the United States recommends that the following sections also be put in an annex/appendix, and a sentence indicating this information is in the annex/appendix be added to the text:

Examples for determining fit-for-purpose sampling frequency and biological criteria

Examples of decision support system tools

- o To agree on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complimentary operational monitoring in small-scale systems

The United States does not object to the addition of the text at the end of paragraph 30 regarding the recommendation to carry out simple complementary operational monitoring such as rapid water quality testing by testing of turbidity, chlorine residuals or visual observation. That said, the United States notes that the most important control measure for maintaining the safety and quality of water is the use of biocides as described in paragraphs 34 and 35; turbidity and visual observation to not provide adequate means of protection against foodborne pathogens.

- o To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh producer that is cooked or processed by the consumer or the food business operator

We do not see that changes have been made in Table 1 compared to the previous version; any water used for cooked produce is identified as low risk. However, the United States previously recommended increasing the risk from “low risk” in Table 1 for fresh produce to be cooked for the two columns on “wastewater” (now “Reused water untreated”) and surface water/groundwater of unknown quality because the microbial reduction of cooking procedures is highly variable and, depending on the type of produce, the cooking applied, and the level of contamination of the water, the water coming in contact with the produce is not necessarily low risk. Thus, we support changing the risk here to “medium” (or a combined low/medium ranking) with a footnote to explain that a “medium” risk ranking has been added to (or substitute for) the low risk ranking in the JEMRA report because the microbial reduction of cooking procedures can be highly variable, depending on the type of produce, the cooking applied and the level of contamination of the water.

In addition, we question why “Reused water untreated” and “Surface and groundwater of unknown quality” are given the same risk level (i.e., high risk) for ready-to-eat produce when the water does not come in contact with the edible portion and when it does. We recognize that this is consistent with Figure 2 in the FAO/WHO MRA 33 Meeting report on Safety and Quality of Water Used in Food Production and Processing, but that same report says (on page 30) that if irrigation water is applied avoiding direct contact with the edible parts of the plants, the risks associated with water quality would be significantly reduced. The report does acknowledge that there are risks due to cross-contamination that need to be accounted for, which may be why the matrix in the report lists wastewater and surface and groundwater of unknown quality as being high risk (actually “HR/?”) for ready-to-eat produce. Footnotes explaining this would be helpful.

<p>c) As regards the fishery sector annex specific input is required in order:</p> <ul style="list-style-type: none"> <li>o To indicate if the scope of the annex is the most appropriate</li> </ul> <p>The United States thinks the annex is acceptable, but it is very general; it could be more specific in identifying when a water is or is not fit for purpose.</p> <ul style="list-style-type: none"> <li>o To decide if the annex requires further description of the different types of source water to mirror the guidance provided in annex I</li> </ul> <p>The United States thinks that tables with source water and use that identify risk and/or frequency of sampling (similar to Annex 1) would be useful; however, such tables would need to be developed or reviewed by JEMRA and would delay progressing the annex.</p> <ul style="list-style-type: none"> <li>o To determine whether the proposed DTs are useful for the proper use of water in the process</li> </ul> <p>The United States believes that the DTs are useful. They would be more useful if they also identified when a water source was not fit for purpose.</p> <p>Following resolution of the above issues, it is recommended that CCFH consider advancement of the General Part of the Guidelines and Annex I and II in the step process. In addition, it is recommended that CCFH53 consider the establishment of an EWG to address the development of the dairy sector annex, for the consideration by CCFH54.</p> <p>The United States looks forward to the physical working group meeting discussions. It seems likely that CCFH53 will be able to advance the General Part of the Guidelines and the Annexes in the step process. The United States also supports the establishment of an EWG to develop an annex on the dairy sector.</p>	
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## SPECIFIC COMMENTS

### GUIDELINES FOR THE SAFE USE AND REUSE OF WATER IN FOOD PRODUCTION AND PROCESSING

27	Malaysia supports the advancement of the General Part of the Guidelines and Annex I and II in the step process	<b>Malaysia</b>
27	Change the title as follows: Guidelines for the Microbiologically Safe Use and Reuse of Water in Food Production and Processing. Rationale: The title must reflect that these Guidelines do not take into account chemical hazards, as stated in the PURPOSE AND SCOPE	<b>Morocco</b>
27	The International Dairy Federation (IDF) would like to thank the chairs for this new version and for the opportunity to review and provide comments.	<b>IDF/FIL</b>

## INTRODUCTION

2	<p>Water is a dwindling resource worldwide and not all food producers and processors have access to safe water sources or this access may be limited. Noting that the availability and <b>biological</b> quality of water are different in each country, region, context, setting, and food establishment, water should always be fit for use for each specific purpose, and it should be managed in a way <b>that the safety of food is ensured, while simultaneously avoiding unnecessary consumption, waste, and the environmental impact.</b></p> <p>The end of the sentence seems unclear for the environmental impact. Should the word “considering” the environmental impact be added?</p> <p>Terms biological and microbiological are used interchangeably throughout the document. Suggest to replace biological with microbiological whenever possible.</p>	<b>Canada</b>
2	<p>Water is a dwindling resource worldwide and not all food producers and processors have access to safe water sources or this access may be limited. Noting that the availability and biological quality of water are different in each country, region, context, setting, and food establishment, water should always be fit for use for each specific purpose, and it should be managed in a way that the safety of food is ensured, while simultaneously avoiding unnecessary consumption, waste, <del>and</del> the environmental <del>impact</del><b>impact and their associated costs.</b></p> <p>Cost (economic matter) is one of the key elements in risk management as written in PROCEDURAL MANUAL. Economic matters are not mentioned anywhere except here.</p> <p>(CODEX ALIMENTARIUS COMMISSION PROCEDURAL MANUAL 27th ed P126) WORKING PRINCIPLES FOR RISK ANALYSIS FOR APPLICATION IN THE FRAMEWORK OF THE CODEX ALIMENTARIUS</p> <p>35. Risk management should take into account the economic consequences and the feasibility of risk management options.</p>	<b>Japan</b>
6	<p>Deciding whether water is fit for purpose should be based on a hazard analysis that considers <b>food safety</b> risks associated with the source water, treatment options and their efficacy, application of multiple barrier processes for risk mitigation, and the end-use of the food product (e.g. whether the food is eaten raw without steps that would mitigate potential hazards introduced by the water source).</p> <p>Japan proposes to insert “food safety” in front of “risks” to clarify that the document covers “food safety risk” associated with the source of water, not “economic risk”.</p>	<b>Japan</b>
8	<p>Associated Annexes provide product-specific guidelines for the safe <del>sourcing-sourcing</del> collection, storage, treatment, handling, distribution, use, and reuse of water in both direct and indirect contact <b>with food</b> throughout the food chain. The annexes also provide examples such as Decision Tree Tools (DTTs) that can help to determine if water is fit for purpose.</p>	<b>USA</b>
9	<p>Provide guidance for <del>competent authorities and</del> food business operators (FBOs) <b>and competent authorities</b> on the application of a risk-based approach for the use and reuse of water that is fit-for-purpose</p> <p>To be consistent with para 11.</p>	<b>Japan</b>
9	<p>The Guidelines for the Safe Use and Reuse of Water in Food Production <b>and Processing</b> aim to:</p> <p>To align with the title of these Guidelines.</p>	<b>Morocco</b>

10	<p>These guidelines provide a framework of general principles and examples for making risk-based decisions for fit-for-purpose water to be sourced, used, and reused across the primary production and processing of relevant commodities. These guidelines do not consider chemical <u>and physical</u> hazards, water for direct animal and human consumption, or the use of water in households.</p> <p>Guidances in the draft document should be based on science. Japan suggests that the JEMRA inputs should be used as the basis for the discussion in CCFH and that the scope of the document should focus on biological hazards where the inputs from JEMRA are/will be available. Physical hazards should be excluded as well as chemical hazards.</p>	<b>Japan</b>
12	<p>This document is intended for use by food business operators (FBOs) (including primary producers, packing houses, manufacturers/processors, <u>food service operators</u>, retailers, and traders) and competent authorities (risk managers and assessors), as appropriate. [Translator's note: change does not affect the English]</p> <p>Translation revision is suggested.</p>	<b>Colombia</b>
5	<p>A risk-based approach to water sourcing, treatment, handling, storage, and use can help in identifying the hazards associated with the water and its use and determine treatments, if applicable, that water needs to undergo to meet the safety parameters specific to each intended use. This approach can also provide a means to address many of the water access and safety challenges associated with reuse based on the principle of using the <u>right water safety</u> for the intended purpose/need.</p> <p>reword to correct type of water</p>	<b>IDF/FIL</b>
10	<p>These guidelines provide a framework of general principles and examples for making risk-based decisions for fit-for-purpose water to be sourced, used, and reused across the primary production and processing of relevant commodities. These guidelines do not consider <u>chemical hazards</u>, water for direct animal and human consumption, or the use of water in households.</p> <p>After "chemical hazards, insert: "other than those that impact microbiological quality"</p>	

## GENERAL PRINCIPLES

iii	<p>Reuse of water should be encouraged, but <del>it</del>-water should be treated/reconditioned and <u>the treatment</u> validated to <del>reduce or</del> eliminate <u>or reduce</u> microbiological hazards to an acceptable level according to its intended use.</p> <p>better clarity</p>	<b>USA</b>
iii	<p>Reuse of water should be encouraged, but it should be treated/reconditioned and <u>validated</u> to reduce or eliminate microbiological hazards to an acceptable level according to its intended use.</p> <p>Insert "the safety and quality " before validated.</p>	<b>IDF/FIL</b>

## DEFINITIONS



<ul style="list-style-type: none"> <li>o Whether there is agreement with the definitions currently included in the document; AUSTRALIA: Agrees with the definitions currently included.</li> <li>o Whether there are any definitions missing and if so to provide proposed text for any missing definitions; AUSTRALIA: Do not have any additional definitions for consideration.</li> <li>o Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather insertion of a cross-reference to the appropriate Codex documents; AUSTRALIA: where there are existing definitions in other Codex texts such as CXC 1-1969, then these should be cross-referenced to help maintain harmonisation of documents.</li> <li>o To indicate a preference for option 1 or 2 for the definition for water fit for purpose; AUSTRALIA: Prefer Option 2 for defining water fit for purpose.</li> <li>o To indicate a preference for the term water risk assessment or water risk analysis; and AUSTRALIA: Prefer term water risk assessment.</li> <li>o To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition. AUSTRALIA: As neither term is currently used, we do not consider it necessary to define</li> </ul>	<b>Australia</b>
<p>Egypt agrees with the definitions currently included in the document NO definitions missing Egypt recommends to certain definitions should be retained in this document (e.g., HACCP system, food hygiene system)</p>	<b>Egypt</b>
<p>The meaning of the new term “water safety plan” is not clear in this document. Japan suggests CCFH and the eWG clarify its meaning and discuss whether to use and define this term</p>	<b>Japan</b>
<p>Regarding the question whether certain definitions should be retained in the document or rather insertion of a cross-reference to the appropriate Codex documents, Malaysia is of the view that the definition of HACCP System and Food Hygiene System should be cross-referred to the Codex document on General Principles on Food Hygiene which is regularly reviewed and may include revision of definitions. However, there were also definitions for Clean Water and Potable Water being used in the Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53 – 2003) but the intention are not the same. Therefore, the definition of Clean Water and Potable Water should be retained in this document.</p>	<b>Malaysia</b>
<p>The UK agree that the proposed definitions are fit for purpose and are clearly set out. We do not believe there are any missing definitions.</p>	<b>United Kingdom</b>

**Option 1: [Water fit for purpose]**

<p>Safe drinking water is a dwindling resource worldwide, but water may not be considered as such worldwide. Suggest deletion of 'dwindling' and 'worldwide' or make the reference to safe drinking water.</p>	<b>Australia</b>
<p>Option 1 is preferred.</p>	<b>Canada</b>
<p>Colombia agrees with this option.</p>	<b>Colombia</b>
<p>Kenya supports the use of Option 1 Rationale: Option 1 is more elaborate. Option 2 is highly summarized, and some users may not understand terms such as risk assessment and might be disadvantaged.</p>	<b>Kenya</b>

<p><b>Option 1: [Water fit for purpose]:</b> water that is determined to be safe for an intended purpose through an assessment of potential hazards, treatment options and their efficacy, control measures, <u>information about incidents that occurred throughout history of use and the production chain and reported incidents involving</u> the end use of the food product.]</p> <p>Rationale: what should be considered is information about incidents that occurred throughout the production chain and reported incidents involving the end use.</p>	<b>Morocco</b>
<p>Singapore prefers Option 1 as this definition includes more clarity on the elements to define water that is fit for use.</p>	<b>Singapore</b>
<p>To indicate a preference for option 1 or 2 for the definition for water fit for purpose</p> <p>Thailand prefers Option 1 for the definition of water fit for purpose.</p> <p>Rationale: it is well elaborated even though part of the definition is quite similar to the definition of ‘water risk assessment[analysis]’</p>	<b>Thailand</b>
<p>Uruguay thinks that this definition is more appropriate.</p>	<b>Uruguay</b>
<p>Keep Option 1. Most comprehensive.</p>	<b>IDF/FIL</b>

#### Option 2: [Water fit for purpose]

<p>Prefer Option 2 for definition of water fit for purpose.</p>	<b>Australia</b>
<p>Egypt support Option 2</p>	<b>Egypt</b>
<p>“Option 2: [Water fit for purpose]: water which is determined to be safe for an intended purpose through a water risk assessment.”</p> <p>Q;</p> <p>To indicate a preference for option 1 or 2 for the definition for water fit for purpose</p> <p>(Substantive)</p> <p>We support the option 2 since it is simpler than option1.</p>	<b>Japan</b>
<p>Malaysia agrees with Option 2 for the definition of Water Fit for Purposes as it is general and provides room for flexibility.</p>	<b>Malaysia</b>
<p>The UK's preference is for option 2.</p>	<b>United Kingdom</b>
<p>We suggest the use of the definition under Option 2 as it provides more clarity regarding water risk assessment. The scope and vision of Option 1 is broader than the Terms of Reference.</p>	<b>Food Industry Asia</b>
<p>ICBA suggests the use of the definition under Option 2 - Water fit for purpose: Water which is determined through an assessment of risk to be safe when used as intended.</p> <p>ICBA believes Option 2 provides more clarity regarding water risk assessment. The scope and vision of Option 1 is larger than needed based on the Terms of Reference.</p>	<b>ICBA</b>
<p>Do not keep option 2. Option too is generic.</p>	<b>IDF/FIL</b>

**Option 1: [Water risk assessment]: Option 2: [Water risk analysis]:**

Prefer the term water risk assessment for this text	<b>Australia</b>
The definition is more aligned with the term Water Risk Analysis as it includes some elements of risk management.  However, we note that these are not equivalent terms as per the Codex definitions. For the purpose here, risk analysis is more applicable as it encompasses beyond the risk assessment and moves into consideration of further risk mitigation and further treatment that may be necessary or that can follow.	<b>Canada</b>
<b>Food operators can conduct</b> a systematic evaluation of the water source <b>can be used</b> to identify potential microbiological hazards, available control measures, and other risk factors (e.g. end use of the food product, history of use, etc.) to establish appropriate risk mitigation practices (e.g. treatment options and their efficacy) to determine if the water can be fit for purpose.  Colombia agrees with the revised definition.	<b>Colombia</b>
Egypt support Option 1: [Water risk assessment]:  “Option 1: [Water risk assessment]: A systematic evaluation of the water source can be used to identify potential microbiological hazards, available control measures, and other risk factors (e.g. end use of the food product, history of use, etc.) to establish appropriate risk mitigation practices (e.g. treatment options and their efficacy) to determine if the water can be fit for purpose.”	<b>Egypt</b>
Q; To indicate a preference for the term water risk assessment or water risk analysis  (Substantive) Japan support the option 1.	<b>Japan</b>
Kenya proposes the adoption of Option 1 and proposes an amendment to the statement to read ...A systematic evaluation of the water source can be used to identify potential microbiological hazards, available control measures, and other risk factors ... Rationale: 1. The document is more on Risk assessment 2. ‘Can be used’ was deleted (editorial comment)	<b>Kenya</b>
Malaysia prefers the term Water Risk Assessment rather than Water Risk Analysis for the consistency purposes.	<b>Malaysia</b>
Singapore prefers the term ‘water risk assessment’. Since the definition is more about risk assessment, it would be appropriate to keep to risk assessment rather than risk analysis.	<b>Singapore</b>
The term related to ‘risk assessment’ and ‘risk analysis’ should not be used.  Rationale: The definition of the existing terms (‘risk assessment’ and ‘risk analysis’) might confuse the users of the Guidelines even though the definition of the term ‘water risk [assessment/analysis] is provided. We would like to propose the use of different terms such as ‘water risk determination’ or ‘water	<b>Thailand</b>

risk consideration' or 'water risk evaluation' since the term is meant for the evaluation of water source which is not a complete risk assessment or risk analysis.	
Uruguay prefers "Water risk assessment."	<b>Uruguay</b>
We recommend the use of "Water risk assessment" instead of "Water risk analysis". "Risk analysis" conveys a broader term than "risk assessment" as this term encompasses risk assessment, risk management, and risk communication.	<b>Food Industry Asia</b>
ICBA suggests the use of "Water risk assessment" instead of "Water risk analysis". "Risk analysis" conveys a broader scope than "risk assessment" as this term encompasses risk assessment, risk management, and risk communication.	<b>ICBA</b>
Keep Option 1. Active vs passive management will depend on the source of water, treatment, and end use. Generally, active management should add more value.	<b>IDF/FIL</b>

**[Active management:]**

General Comment: These definitions do not seem necessary. The terms are only used in Figure 1 and they are both subjective. Issues can be broader in every situation and food safety programs require some level of management engagement. We do not think that they need to be separated out into active and passive.	<b>Canada</b>
Egypt recommends to there is no need to add a passive or active management definition.	<b>Egypt</b>
Q; To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition.	<b>Japan</b>
A; Definitions of active and passive management seem not to be necessary since in these terms are used in Figure 1 only.	
Position: Kenya proposes the omission of the words in square brackets. Rationale: They are not covered in the text and hence no need to define them.	<b>Kenya</b>
For the definition of Active Management and/or Passive Management, Malaysia has the view that it is unnecessary because it has not being used or referred to in this guideline.	<b>Malaysia</b>
As the Guidelines describe risk mitigation practices and it would be up to the food business operator to determine how to implement them, Singapore is of the view that there is no need to define active and/or passive management.	<b>Singapore</b>
The UK does not think this definition is needed.	<b>United Kingdom</b>
It should remain in the case of leaving the decision tree in Figure 1.	<b>Uruguay</b>
We do not think this additional term is necessary.	<b>Food Industry Asia</b>
ICBA questions why this term is being added as it was not found within the text.	<b>ICBA</b>

**[Passive management]**

General comment: These definitions do not seem necessary. The terms are only used in Figure 1 and they are both subjective. Issues can be broader in every situation and food safety programs require some level of management engagement. We do not think that they need to be separated out into active and passive.	<b>Canada</b>
Q; To indicate whether a definition is needed for Active management and/or Passive management and if so to provide proposed text for the definition.	<b>Japan</b>
A; Definitions of active and passive management seem not to be necessary since in these terms are used in Figure 1 only.	
Position: Kenya proposes the omission of the words in square brackets. Rationale: They are not covered in the text and hence no need to define them.	<b>Kenya</b>
The UK does not think this definition is needed.	<b>United Kingdom</b>
Uruguay thinks that this definition is not a fit.	<b>Uruguay</b>
We do not think this additional term is necessary.	<b>Food Industry Asia</b>
ICBA questions why this term is being added as it was not found within the text.	<b>ICBA</b>

**Clean Water:** water that does not meet the criteria for potable water but does not compromise the safety of the food in the context of its use.

Knowing that the term “clean water” is used in the Code of Practice for FFV and that at CCFH52 it was decided to keep the paragraphs until the related work is completed, the term clean water is appropriate, however, for consideration at a later time, should the term clean water be replaced by water that is fit for purpose in this document.	<b>Canada</b>
ICBA agrees with the use of this definition.	<b>ICBA</b>
Delete. The term should be deleted as it covers everything other than potable water. It has no use in guidelines of water reuse, which are developed according to the water-fit-for-purpose concept.	<b>IDF/FIL</b>

**First-use water:** Potable water from an external source that can be used in any food processing operation. Examples of this type of water include wastewater, rainwater, surface water, and effluents of sewage treatment plants that are properly reconditioned to be considered potable.

The section of the definition that says from an external source does not seem to be correct.	<b>Canada</b>
Definition of first-use water seems not to be necessary since in this term is used in the definition of “recycled water” only.	<b>Japan</b>
ICBA agrees with the use of this definition.	<b>ICBA</b>
Delete wastewater and effluents of sewage treatment: Wastewater is not an appropriate "First-use water"	<b>IDF/FIL</b>
Add ground water.	

**Potable water:** Water fit for human consumption.

Replace potable by drinking.	IDF/FIL
ICBA agrees with the use of this definition.	ICBA

**Reuse water:** Water that has been recovered from a processing step within the food operation, including from the food components and/or water that, after reconditioning treatment(s) as necessary, is intended to be (re-)used in the same, prior or subsequent food processing operation. Types of reuse water can include reclaimed water from food, recycled water from food operations, or recirculated water in a closed loop system.

<p><b>Reuse water:</b> Water that has been recovered from a processing step within the food operation, including from the food components and/or water that, after reconditioning treatment(s) as necessary, is intended to be (re-)used in the same, prior or <u>a</u> subsequent <u>step of the</u> food processing operation. Types of reuse water can include reclaimed water from food, recycled water from food operations, or recirculated water in a closed loop system.</p> <p>Suggestion to improve the sentence.</p>	Canada
The difference between Recycled water and Reuse water is not clear, so we should consider how to distinguish and define them	Japan
<p>Singapore does not permit the use of grey water in primary production and would like to suggest to include the following underlined words to (i) exclude grey water from the definition of reuse water and (ii) definition of grey water.</p> <ul style="list-style-type: none"> <li>Reuse water: Water that has been recovered from a processing step within the food operation, including from the food components and/or water that, after reconditioning treatment(s) as necessary, is intended to be (re-)used in the same, prior or subsequent food processing operation. Types of reuse water can include water that is reclaimed from food, recycled from food operations or recirculated in a closed loop system. This should exclude grey water.</li> <li>Grey water: Untreated used water recovered from other uses within the food production/processing premises and includes used water from showers, bathtubs, bathroom/toilet wash basins and water from clothes washing and laundry tubs.</li> </ul>	Singapore
ICBA agrees with the use of this definition.	ICBA
<p>This wording is more suitable.</p> <p>Reuse: Includes all reuses of water, including reclaiming, recirculation, and recycling of water from a food operation. Does not include first use of drinking water or potable water, nor the initial conditioning of raw water to produce drinking water/potable water.</p>	IDF/FIL

**Reclaimed water:** Water that was originally a constituent of a food material, which has been removed from the food material by a process step and is intended to be subsequently reused in a food processing operation.

Definition of reclaimed water seems not to be necessary since in this term is used in the definition of “reuse water” “recycled water” only.	Japan
ICBA agrees with the use of this definition.	ICBA

<p><b>Recycled water:</b> Water, other than first-use or reclaimed water, which has been obtained from a step in the food production or food processing operation to be reused in the same, prior or a subsequent step of the operation, after reconditioning, when necessary.</p> <p>ICBA agrees with the use of this definition.</p>	ICBA
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<b>Recirculated water:</b> Water reused in a closed loop for the same processing operation without replenishment. ICBA agrees with the use of this definition.	<b>ICBA</b>
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**Risk assessment:** A scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization.

Risk assessment is defined in the Codex Procedure Manual. So to avoid confusion, we propose to delete this definition from this document.	<b>Japan</b>
ICBA agrees with the use of this definition.	<b>ICBA</b>
Add a definition for Risk Management.	<b>IDF/FI</b>

#### Reconditioning:

<b>Reconditioning:</b> the treatment of water intended for reuse by means designed to eliminate or reduce microbiological contaminants to an acceptable level according to its intended use. ICBA agrees with the use of this definition.	<b>ICBA</b>
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**Water sourcing:** the act of identifying and obtaining water for food production from a particular water source (e.g. groundwater, surface water, captured water).

Replace captured water with reclaimed.	<b>IDF/FIL</b>
ICBA agrees with the use of this definition.	<b>ICBA</b>

**Food hygiene system:** Prerequisite programmes, supplemented with control measures at CCPs, as appropriate, that when taken as a whole, ensure that food is safe and suitable for its intended use.

Q; Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather insertion of a cross-reference to the appropriate Codex documents  (Substantive) Both "food hygiene plan" and "HACCP system" Should be cross reference to General Principles of Food Hygiene and should be deleted from this document.	<b>Japan</b>
Singapore supports to retain the following definition for food hygiene system for direct and ease of reference as there are frequent use of these two terms within the document.	<b>Singapore</b>
If this definition is to be retained within this document then it may be useful to add a footnote cross referencing they are taken from CXC 1-1969.	<b>United Kingdom</b>

We agree with this definition but we suggest making a reference that this comes from the General Principles of Food Hygiene (CXC 1-1969) via a footnote.	<b>Food Industry Asia</b>
ICBA agrees with the use of this definition but asks that there be reference to The General Principles of Food Hygiene (CXC 1-1969) as this is an existing definition there.	<b>ICBA</b>

**HACCP System:** The development of a HACCP plan and the implementation of the procedures in accordance with that plan.

Q; Whether certain definitions should be retained in the document (e.g., HACCP system, food hygiene system) or rather insertion of a cross-reference to the appropriate Codex documents  (Substantive) Both "food hygiene plan" and "HACCP system" Should be cross reference to General Principles of Food Hygiene and should be deleted from this document.	<b>Japan</b>
Singapore supports to retain the following definition for HACCP system, for direct and ease of reference as there are frequent use of these two terms within the document.	<b>Singapore</b>
If this definition is to be retained within this document then it may be useful to add a footnote cross referencing they are taken from CXC 1-1969.	<b>United Kingdom</b>
Uruguay believes that the acronym HACCP should be written out.	<b>Uruguay</b>
We agree with this definition but we suggest making a reference that this comes from the General Principles of Food Hygiene (CXC 1-1969) via a footnote.	<b>Food Industry Asia</b>
ICBA agrees with the use of this definition but asks that there be reference to The General Principles of Food Hygiene (CXC 1-1969) as this is an existing definition there.	<b>ICBA</b>

## SECTION 1: WATER RISK ASSESSMENT AND MONITORING

Title	<b>SECTION 1: WATER RISK <del>ASSESSMENT-EVALUATION</del> AND MONITORING</b>	<b>USA</b>
	Editorial changes to section 1 below are consequential to a change using the term "water risk evaluation"	
15	Uruguay prefers "water risk assessment."	<b>Uruguay</b>
14	Kenya proposes the deletion of what is in the square brackets -Analysis, throughout the text. Rationale: Once the adoption of the use of risk assessment from the definitions, then there will be need to delete Analysis.	<b>Kenya</b>
14	Water Risk <del>Assessment [Analysis] (WRA)-Evaluation (WRE)</del> and monitoring are overarching approaches that apply to all sectors and at multiple steps in the food chain to determine fit-for-purpose water sourcing, collection, storage, treatment, handling, use and reuse.	<b>USA</b>
15	Monitoring is not the same as risk assessment/analysis, this should therefore be a separate paragraph.	<b>Canada</b>



15	<del>WRAs-WREs</del> can be used to set target objectives for water sources and treatments for achieving public health outcomes, water quality values, performance targets (e.g. food safety objectives, performance objectives), acceptable levels of risk, and treatment process efficacies. Monitoring is used to generate data for the development of a risk profile or to inform <del>WRAs-WREs</del> and can be used to inform risk management by identifying safety issues that need to be addressed in a food hygiene system to ensure the safety of water and, therefore, the safety of foods.	USA
16	Like food safety management, water safety management should be risk- and evidence-based, with reduction measures implemented within the framework of an overall water safety plan or a structured food hygiene system or HACCP system and with <del>verification and</del> monitoring <u>and verification</u> activities in place to ensure the plans/systems are operating as expected.  Rationale: In general, monitoring happens before verification.	USA
17	Water use and reuse systems should be subjected to ongoing, risk-based monitoring of appropriate parameters and verification by testing. The frequency of monitoring and verification can be dictated by different factors such as the source of the water or its prior condition, the efficacy of any treatments, and the intended reuse of the water. <u>Relevant routine monitoring data by environmental agencies and public health organizations could be also useful.</u> In any case, this should be included in an FBO's food hygiene system, water safety plan, or HACCP system.  It is supposed that in addition to the monitoring conducted by the FBOs themselves, there is also relevant routinely monitoring data by other organizations (e.g. environmental agencies and public health organizations), and the JEMRA also reported the following statement, which should be added to indicate that such data is also useful  (JEMRA Report 33) 2.1.3 Faecal indicator organisms – e.g. E. coli – are routinely monitored by the food industry, environmental agencies and public health organizations, as a practical and affordable alternative to pathogen testing in verification, operational and surveillance monitoring.	Japan
18	Monitoring <del>must be able to can</del> detect potential deviations and provide information in time for corrective actions to be taken such that unsafe foods are not placed on the market.	
19	In the context of safe water sourcing, collection, treatment, handling, use, and reuse, <del>WRAs-WREs</del> can include the following approaches:	USA
19.2 <sup>1</sup>	Semi-quantitative <del>WRAs-WREs</del> – the development and use of risk matrices that establish categories of risks from high to low, including consideration of sanitary conditions and their likelihood and estimated frequencies of unacceptable sanitary conditions. These are normally used for planning, prioritization, and a rapid assessment of the safety and quality of water sources collection, storage, treatment, and handling.	USA

## SECTION 2: FOOD HYGIENE SYSTEMS

20	Please specify the differences between "water safety plans" and "water safety program". If there are no difference, just use "water safety plan" throughout the document.  Both food hygiene system and HACCP system include monitoring and verification components.	Japan
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<sup>1</sup> This refers to bullet 2 of paragraph 19. This numbering format will be used to cross reference paragraphs with bullet points

	Why "with verification and monitoring" is specified in this sentence? If only for emphasis, please change to "food hygiene or HACCP system which include monitoring and verification".	
20	Kenya proposes to retain the definition of the words HACCP system and Food Hygiene system Rationale: Elaboration is necessary for terms that may not be obvious for users, and it is therefore necessary to define them.	<b>Kenya</b>
21	The development of such plans requires <del>complete</del> knowledge of the water <del>systems</del> source, the diversity and magnitude of the hazards that may exist, and the capacity of existing processes and infrastructure to address and control risks.  It is not clear the scope of "complete knowledge of the water system".	<b>Japan</b>
22	As part of the food hygiene or HACCP system, <del>where appropriate</del> , all water systems should be mapped in a process flow diagram and evaluated in the hazard analysis. Water systems also require identification of potential <u>microbiological</u> hazards ( <del>microbiological, physical agents</del> ) with the capacity to cause damage to water safety and their sources and should also address safe water sourcing, use or reuse, when developing and implementing the plan. Additional factors to be considered could include water storage/distribution, including hygienic design, and the need for special expertise.  According to the CXC1, section 3.4 of the HACCP part, the flow diagram should indicate all inputs including water. However, "mapping of all water system" is not indicated in the CXC1. To be consistent with CXC1, Japan proposes to insert "where appropriate" in the 1st sentence of para20.  The scope of the document should focus on biological hazards where the inputs from JEMRA are/will be available.	
22	Singapore would like to suggest some amendments (as bracketed [ ] ) in the proposed text to include chemical hazards.  22. As part of the food hygiene or HACCP system, all water systems should be mapped in a process flow diagram and evaluated in the hazard analysis. It also requires an identification of potential hazards (microbiological, [chemical] and physical agents) with the capacity to cause damage to water safety and their sources. They should also address safe water sourcing, use or re-use and consider many factors when developing and implementing the plan. Additional factors to be considered could include water storage/distribution, including hygienic design and the need for special expertise.	<b>Singapore</b>

### SECTION 3: DECISION SUPPORT SYSTEMS

25	Singapore is of the view that the tools (DTs) are appropriate as a guidance for operator to evaluate if their system is fit for purpose and if it requires any mitigation. The various examples of decision support system tools are also useful, as it would allow the food business operator to have a practical way to determine the type of water to use at different production stage.	<b>Singapore</b>
27	ICBA supports the advancement of these guidelines and all further work.	<b>ICBA</b>

### Figure I

<b>Figure I.</b> Example of a risk-based DDS framework tool for the purpose of deciding if reused water can be used in either a food contact application or a not-for-food-contact application for microbiological <b>hazards</b> .	<b>Canada</b>
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<p>Need consistency in the term reuse throughout the document.</p> <p>In diagram, suggest using consistent term food safety instead of consumer safety and consumer food safety.</p>	
<p><b>Figure I.</b> Example of a risk-based <del>DDS-Decision Support System</del> framework tool for the purpose of deciding if reused water can be used in either a food contact application or a not-for-food-contact application for microbiological hazards.</p> <p>Rationale: The Figure should be understandable without having to look through the text for the meaning of an abbreviation (which in this case has a typographical error)</p> <p>The second bullet under “Purpose” is not the purpose. We suggest putting the text of the second bullet in parentheses and deleting the bullets for both Purposes.</p>	<b>USA</b>
<p><b>Figure I.</b> Example of a risk-based DDS framework tool for the purpose of deciding if reused water can be used in either a food contact application or a not-for-food-contact application for microbiological hazards.</p> <p>Change "reused" to "reuse".</p>	<b>IDF/FIL</b>

## ANNEX I FRESH PRODUCE

<p>o To agree to the modifications proposed to the definition of fresh produce (see section on Definitions in Annex I) and to decide where to put it (in the general part or in Annex I) AUSTRALIA: Supports the proposed definition for fresh produce and support its inclusion in Annex 1 as drafted.</p> <p>o To determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is out of the scope of the document (e.g. paragraph 34); AUSTRALIA: Supports retaining the current references to chemical hazards within the text as drafted.</p> <p>o To evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document; AUSTRALIA: Supports inclusion of the remaining examples and tools.</p> <p>o To agree on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complimentary operational monitoring in small-scale systems; and AUSTRALIA: Agrees to the additional wording proposed.</p> <p>o To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh producer that is cooked or processed by the consumer or the food business operator. AUSTRALIA: Does not agree with this change, Australia prefers retaining fresh produce that is cooked or processed as low risk as per the table in MRA 33, Chapter 6 figure 2.</p> <p>c) As regards the fishery sector annex specific input is required in order:</p> <p>o To indicate if the scope of the annex is the most appropriate; AUSTRALIA: The scope as drafted appears to only focus on processing of fishery products, however there are several references within the Annex to production of fishery products. If production was to be in scope, then for aquaculture and bivalve molluscs, Australia asks whether depuration and wet</p>	<b>Australia</b>
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<p>storage also needs to be considered. These are covered in some detail within CXC 52-2003 Code of Practice for fish and fishery products, Section 7.5 (references to clean seawater for deputation) and Section 7.6.2 (reference to clean seawater or approved water treatment systems for storage/conditioning). So perhaps there was a decision to not include. If so, a comment to this effect may improve the text.</p> <ul style="list-style-type: none"> <li>o To decide if the annex requires further description of the different types of source water to mirror the guidance provided in annex I; and</li> </ul> <p>AUSTRALIA: The Annex has captured the different types of source water, no further descriptions required.</p> <ul style="list-style-type: none"> <li>o To determine whether the proposed DTs are useful for the proper use of water in the process.</li> </ul> <p>AUSTRALIA: These have come from MRA 33 and align with the current scope as drafted (only processing), however it is missing deputation and wet-storage system use of water, which may be a limitation</p> <p>Safe drinking water is a dwindling resource worldwide, but water may not be considered as such worldwide. Suggest deletion of 'dwindling' and 'worldwide' or make the reference to safe drinking water.</p>	
<p>The purpose and scope of this annex are to elaborate guidelines for the safe biological quality sourcing, use and reuse of water in direct and indirect contact with fresh produce (for primary production and processing) by applying the principle of 'fit for purpose' using a risk-based approach. The annex recommends Good Hygiene Practices (GHP), <u>and</u> risk-based, sector-specific potential prevention and intervention strategies, <del>and</del>. <u>It also</u> provides examples and/or practical case studies for determining appropriate fit-for-purpose biological criteria (i.e. criteria for bacteria, viruses, parasites), as well as examples of the decision support system (DSS) tools such as Decision Trees (DT) to determine the water quality needed for the specific intended purpose in the fresh produce supply chain.</p>	<p><b>USA</b></p>

**DEFINITIONS**

<p>Supports this new definition for fresh produce and retaining it here in Annex 1</p>	<p><b>Australia</b></p>
<p>Agreement with modified definition.</p>	<p><b>Canada</b></p>
<p>Definition best suited for inclusion in Annex 1 itself.</p>	
<p>We agree with the wording and suggest including it in the general.</p>	<p><b>Colombia</b></p>
<p>Egypt agrees to the modifications proposed to the definition of fresh produce.</p>	<p><b>Egypt</b></p>
<p>“[Fresh produce: Any fresh fruit, nuts, fungi and vegetables that are likely to be sold to consumers in a raw form, either unprocessed or minimally processed (e.g., washed, peeled, cut or otherwise physically altered from its original form but remaining in the fresh state), and that are generally considered as perishable regardless of it being intact or cut from root/stem at harvest.]”</p>	
<p>Japan proposes not to include fungi in the definition of fresh produce due to the following two reasons:</p> <ul style="list-style-type: none"> <li>- Japan suggests that this document should be science-based and the JEMRA inputs should be used as the basis for the discussion in CCFH. The upcoming JEMRA report MRA43 does not cover fungi.</li> <li>- Even edible mushrooms may contain natural heat-labile toxins, so raw consumption of mushrooms should be avoided. At this point, fungi should be distinguished from fresh fruits and vegetable.</li> </ul>	<p><b>Japan</b></p>

<p>1. Kenya proposes the Fresh produce definition to be removed from this annex and be included in the general part under definition of terms.</p> <p>2. Modify the Definition to read 'Fresh produce: Any fresh fruit, nuts, fungi and vegetables that are likely to be sold to consumers in a raw form, either unprocessed or physically altered from its original form (e.g., washed, peeled, cut) but remaining in the fresh state, and that are generally considered as perishable regardless of it being intact or cut from root/stem at harvest.'</p> <p>Rationale:</p> <ol style="list-style-type: none"> <li>1. For consistency and good practice</li> <li>2. Minimally processed may be misunderstood to mean cooked, blanched, freezing, fermentation etc.</li> </ol>	<b>Kenya</b>
<p>Malaysia has no objection to the modifications proposed to the definition of Fresh Produce and supports the placement of the definition to be in the general part of this document.</p>	<b>Malaysia</b>
<p>Singapore prefers to include the definition for fresh produce in Annex I for ease of reference; and would like to suggest some amendments (as square bracketed []) in the proposed text.</p> <ul style="list-style-type: none"> <li>• Fresh produce: Any fresh fruit, nuts, fungi and vegetables [including sprouts, herbs and seeds] that are consumed [] in a raw form, either unprocessed or minimally processed (e.g., washed, peeled, cut or otherwise physically altered from its original form but remaining in the fresh state), and that are generally considered as perishable regardless of it being intact or cut from root/stem at harvest.</li> </ul>	<b>Singapore</b>
<p>[Fresh produce: Any fresh fruit, <del>nuts</del>, <u>edible fungi</u> and vegetables that are likely to be sold to consumers in a raw form, either unprocessed <b>or minimally processed (e.g., washed, peeled, cut or otherwise physically altered from its original form but remaining in the fresh state)</b>, and that are generally considered as perishable regardless of it being intact or cut from root/stem at harvest.]<u>Requirements in this Annex is particularly suitable for fresh produce intended to be consumed raw. For fresh produce that is rarely consumed raw, the requirements should be modified in accordance with the associated risk.</u></p> <p>The risk associated with the use of water on fresh produce is largely different depending on the final use of the produce (raw or cooked). Most of the requirements in this Annex, especially pre-harvest use of water, come from the Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003). The scope of CXC 53-2003 covers fresh fruits and vegetables intended to be consumed raw only.</p> <p>Requirements on water use for nuts should be different from the other fresh produce (fruit, edible fungi and vegetables). Also, water does not directly contact the nut itself during pre-harvest. Thus, nuts should not be included in the definition of fresh produce.</p>	<b>Thailand</b>
<p>The UK agree with the modifications proposed to the definition of fresh produce.</p>	<b>United Kingdom</b>
<p>Uruguay agrees with the definition. However Uruguay thinks that “nuts” should not be included.</p>	<b>Uruguay</b>

## PRE-HARVEST USE OF WATER

6	<p>Water has several uses in primary production, e.g., irrigation, application of pesticides and fertilizer, protection against frost/freezing and prevention of sunscald. The quality of water used in primary production is usually very variable. Several parameters may influence the risk of biological contamination of fresh produce via water: the source of water, water storage and delivery infrastructures, the type of irrigation system (e.g. drip, furrow, sprinkler/overhead) influencing whether the water has direct contact with the edible portion of the fresh produce, the</p>	<b>USA</b>
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	timing of irrigation in relation to harvesting and exposure of plants to sunlight that can reduce contamination that occurs from water (e.g. microbial die-off). Water used for primary production, including for frost protection and protection against sunscald, which has contact with the edible portion of fresh produce, should not compromise <del>their produce</del> safety.	
8.3	Is there a scientific basis for prescribing a minimum of ten meters?	<b>Australia</b>
8.3	If storing manure, slurry, composts and other soil amendments, ensure there are no leaks or spillage and they are positioned downhill from the water source, and <u>far enough away (e.g. at least ten meters awayaway)</u> , to minimize contamination.  The United States is wondering if the JEMRA report on microbial safety of produce will provide scientific justification specifying "ten meters" between the water source and soil amendments. A suggested revision to provide flexibility is provided.	<b>USA</b>
8.3	If storing manure, slurry, composts and other soil amendments, ensure there are no leaks or spillage and they are positioned downhill from the water source, and at least ten meters away, <u>where possible</u> , to minimize contamination.  To ensure flexibility	<b>Japan</b>
9	Surface water (e.g. rivers, lakes, canals, lagoons, ponds, reservoirs): when contaminated, options such as application of chemical treatment, sand filtration (combined with other treatment such as- <u>application of UV-C), microfiltration or storage in catchments or reservoirs to achieve partial biological treatment should be considered. The efficacy of these treatments should be evaluated and monitored.</u> <del>such as application of UV-C), microfiltration or storage in catchments or reservoirs to achieve partial biological treatment should be considered. The efficacy of these treatments should be evaluated and monitored.</del>	
11	When water is tested for biological hazards, the results should be used by growers and associated operators to inform on the use of water according to the risk associated with the production. The frequency of testing will depend on the water source (i.e. lower for adequately maintained deep wells, higher for surface waters), observed quality based on <del>preceeding-preceding</del> testing, the risks of environmental contamination, including intermittent or temporary contamination, and factors such as the implementation of a new water treatment process by growers.  What does "a new" water treatment mean?	
14.2	Which validated test methods should be conducted (e.g. for which pathogens and/or <del>indicators-indicator</del> organisms);	<b>USA</b>
14.3	which parameters should be recorded (e.g. temperature of water sample, water source location, and/or weather <del>description</del> ); <u>description, time and temperature between sampling and analysis</u> );  It is supposed that time and temperature between sampling and analysis is also important. (Ref : ISO 19458)	<b>Japan</b>
14.6	how test results will be used to define corrective <del>actionsactions</del> <u>including use of an alternative source of water.</u>  It is supposed that using alternative source of water could be also an option.	<b>Japan</b>
15.2	improvement of good agricultural practices to prevent contamination from animal <del>waste, fertilizer-waste</del> and <del>pesticide-runoff</del> <u>fertilizer</u> ; It is supposed that this would be chemical and not water-borne pathogen source.	<b>Japan</b>

15.7	maximizing the interval between application of irrigation water and crop <del>harvest</del> <u>harvest</u> , as time-to-harvest intervals will impact the die-off rate of <del>microorganisms and it</del> <u>microorganisms, which</u> is affected by different weather conditions, produce types, and type of bacteria.	<b>USA</b>
15.9	chemical water treatment; <u>and</u>	<b>Australia</b>
15.10	the construction of settling or holding ponds or water treatment facilities;	<b>Thailand</b>
19.4	Where possible, avoid the use of high-risk water sources such as poorly stored rainwater, <del>untreated wastewater</del> , and surface water from rivers, lakes and ponds.  Uruguay considers eliminating “untreated wastewater.” Likewise, Uruguay believes that not using this type of water must be specified.	<b>Uruguay</b>
19.5	Growers should focus on the adoption of GAP to minimize and control the risk of contaminated water and not use testing as the sole method of <del>controlling waterborne hazards</del> <u>ensuring control of microbial pathogens in water</u> .  Testing does not “control” hazards – it is a verification of control. Also, the guidelines are not focused on all “waterborne hazards” but on foodborne pathogens in water. The United States suggest the following revisions.	<b>USA</b>
19.7	<del>Avoid water spraying immediately prior to harvest.</del> Water <del>spraying, spraying</del> i.e. misting, immediately prior to <del>harvest</del> <u>harvest</u> , presents an increased biological risk. If the soil is heavy and non-free draining, contaminated water can accumulate on the soil surface, increasing the risk of crop contamination. <del>It is recommended that water spraying immediately prior to harvest be avoided.</del>	
19.8	<del>Inspection of</del> <u>Inspect</u> the complete irrigation system under the farmer's control at the beginning of each growing season and repair the system or apply corrective measures if necessary.	
19.9	<del>Proper storage of</del> <u>Properly store</u> organic fertilizers and manure in areas away from water sources, with no possibility of being washed away by runoff.	
21	Water used for the application of water-soluble fertilizers, pesticides and other agricultural chemicals that come in direct contact with products should be of the same quality as water used for direct contact irrigation and should not <del>contain biological contaminants at levels that may adversely affect the safety of fresh produce</del> <u>compromise their safety</u> , especially if they are applied directly on edible portions of the fresh produce close to harvest. Human pathogens can survive and multiply in many agrichemicals, including pesticides.  To be consistent with para 6 (PRE-HARVEST USE OF WATER)  6. ...Water used for primary production, including for frost protection and protection against sunscald, which has contact with the edible portion of fresh produce, should not compromise their safety.	<b>Japan</b>

## HARVEST and POST-HARVEST USE OF WATER

27	Water used during harvesting and postharvest practices includes any water that contacts fresh produce during or after harvest including water used for rinsing, washing, transporting or fluming, cooling, waxing or icing. The microbiological quality of postharvest water is critical because microbial die-off <del>of</del> <u>on</u> the fresh produce before consumption is minimal, in particular in case of ready-to-eat produce.	<b>USA</b>
30	It is recommended that the quality of the water used in packing establishments be controlled, monitored and recorded by testing for indicator organisms and/or food-borne pathogens. Since the results of such (verification) testing is not available right away, it is recommended to carry out <del>simple complimentary</del> <u>other complementary</u> operational monitoring such as rapid water quality testing by testing <del>of</del> turbidity, chlorine residuals or visual observation. This last one is of particular importance in small-scale systems where the frequency of verification testing is typically low.  Correct word added.  Clarification is needed on which example last one is referring to. Is it the elements in the whole sentence or the visual observation only?	<b>Canada</b>
30	Egypt not agrees on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complimentary operational monitoring in small-scale systems.	<b>Egypt</b>
30	Q: To agree on the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complimentary operational monitoring in small-scale systems;  (Substantive) Japan agree.	<b>Japan</b>
30	Comment: Kenya proposes to revise the statement and adopt the modified sentence as indicated.  'It is recommended to carry out simple complimentary operational monitoring such as rapid water quality testing by testing of turbidity, chlorine residuals or visual observation.'  Rationale: The statement gives a recommendation that can be easily used in small scale systems.	<b>Kenya</b>
30	Malaysia also agrees with the additional wording proposed in the second part of paragraph 30 pertinent to the implementation of simple complimentary operational monitoring in small-scale systems.	<b>Malaysia</b>
30	Singapore would like to suggest the following amendments in square brackets:  • Since the results of such (verification) testing is not available right away, it is recommended to carry out simple [complementary] operational monitoring such as rapid water quality testing by testing of turbidity, chlorine residuals or visual observation. This last one is of particular importance [] where the frequency of verification testing is [] low.	<b>Singapore</b>
30	The UK agrees to the additional wording proposed in paragraph 30.	<b>United Kingdom</b>



30	It is recommended that the quality of the water used in packing establishments be controlled, monitored and recorded by testing for indicator organisms and/or food-borne pathogens. Since the results of such (verification) testing <del>is-are</del> not available right away, it is recommended to carry out simple <del>complimentary-complementary</del> operational monitoring such as rapid water quality testing by testing of turbidity, chlorine residuals or visual observation. This last one is of particular importance in small-scale systems where the frequency of verification testing is typically low.	<b>USA</b>
31	It is recommended that the quality of the water used in packing establishments be controlled, monitored and recorded by testing for indicator organisms and/or food-borne pathogens. Since the results of such (verification) testing are not available right away, it is recommended to carry out simple complementary operational monitoring such as rapid water quality testing by testing turbidity, chlorine residuals or visual observation. <b>This last one is of particular importance in small-scale systems where the frequency of verification testing is typically low.</b>  Uruguay agrees with the added paragraph. "This last one is of particular importance in small-scale systems where the frequency of verification testing is typically low."	<b>Uruguay</b>
32	If large quantities of fresh produce ( <del>hundreds-(e.g. hundreds</del> of kilograms) are washed in the same volume of water ( <del>1000-(e.g. 1000</del> L), accumulation of microorganisms occurs which favours cross-contamination between different product batches. Maintenance of residual concentration of biocides in the process water, can be used as processing aids to maintain the microbiological quality of process water to avoid accumulation of microorganisms in the water tank and reduce cross-contamination in the washing tank.	<b>USA</b>
34	Q: To determine whether to maintain or eliminate texts referring to chemical hazards or their control, considering that it is out of the scope of the document (e.g. paragraph 34)  (Substantive) Japan suggests that since this guidance is for providing practical guidance and tools and risk-based microbiological criteria as examples, the text on chemical and physical hazard reduction should be deleted, while chemical and physical treatments related to microbiological hazard reduction should be maintained.	<b>Japan</b>
34	Comment: Kenya supports the use of texts referring to chemical hazards and their control. Rationale: The scope is on biological safety, but information given on chemical residues in this para is important to the user.	<b>Kenya</b>
34	Singapore prefers to retain the text because biocides are used to maintain the microbiological quality of the water but its use will result in another (chemical) hazard which needs to be addressed.  In addition, biocides cover both chemical substances and microorganisms. There should be a corresponding definition for biocides in the General Section. The use of biocides is a recommendation from the Guidelines, and it will be important to highlight the potential implications on post-harvest contamination  Singapore would also like to suggest some amendments (as bracketed) in the proposed text.  34. The use of biocides to maintain the microbiological quality of process water should comply with the requirements established by the competent authority and should be validated for efficacy. Biocides should never replace GHPs but be used in addition to GHPs and where necessary to minimize post-harvest cross contamination with biocide levels monitored, controlled and recorded to ensure the maintenance of effective concentrations. The application of biocides should be followed by rinsing [of the fresh produce] as necessary to ensure that	<b>Singapore</b>

	chemical/[microbiological] residues do not exceed levels established by the competent authority using overhead spray, not by an immersion tank without cross-contamination attention.	
34	Singapore also proposes to include a definition for biocides since there are numerous references to this term under Annex 1 Fresh Produce.	
34	Uruguay believes that text referring to chemical hazards must be maintained.	<b>Uruguay</b>
	Figure 1. Example of a potential option for water reuse in the fresh produce industry. The United States recommends that the figure be modified to change “sanitizing agent” and “sanitizer” to “biocide” to conform with the term decided on by CCFH for the 2017 revision of the Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003).	<b>USA</b>

### RISK-BASED STRATEGY TO DETERMINE FIT FOR PURPOSE

48	The development of a risk-based strategy for water sourcing, use and reuse should <del>be based on a risk-based strategy that should</del> take into account:	<b>USA</b>
48.7	physiological characteristics of the fresh <del>product-produce</del> (such as the peel and whether the produce would be subject to infiltration);	<b>USA</b>
49.2	<u>Cooked or processed by the consumer or a food business operator: YES/NO</u>  We agree with medium risk, meanwhile we suggest combining the YES/NO answers into one field, since in the case of “cooked or processed by the consumer or a food business operator” if the answer is YES or NO the risk is the same.	<b>Colombia</b>
50	Comment: Kenya supports the changes proposed to table 1 indicating medium risk in place of low in case of fresh produce that is cooked or processed by the consumer or the food business operator. Rationale: It is in line with current available information on possible contamination on water sources.	<b>Kenya</b>
50	The matrix in Table 1 <u>is an example that</u> can be used <del>to simply as a simple</del> approach <u>to</u> the level of risk posed by the use or reuse of various water sources during pre-harvest stages of fresh produce and their intended use.  The United States recommends the following changes to indicate that Table 1 is an example of an approach that can be considered and to provide clarity.	<b>USA</b>

Table 1<sup>1</sup>

Egypt not agrees on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh producer that is cooked or processed by the consumer or the food business operator.	<b>Egypt</b>
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<p>Guidances in the draft document should be based on science. Japan suggests that the JEMRA inputs should be used as the basis for the discussion in CCFH.</p> <p>To be align with pp.31-33 of MRA series 33 provided by JEMRA, in Table 1, para 49, "high risk" should be replaced by "potentially high risk/unknown risk", Also, "potentially" should be added in front of "medium risk" and "low risk" .</p> <p>Use of abbreviations (e.g. PHR, PMR, PLR) is also considered to be helpful.</p> <p>Q.</p> <p>To agree on the changes made to Table 1 to indicate medium risk instead of low risk in case of fresh producer that is cooked or processed by the consumer or the food business operator.</p> <p>(Substantial)</p> <p>Since table 1 is from the JEMRA report, its contents should not be changed without any scientific justifications.</p>	<b>Japan</b>
<p>Thailand does not agree with the change from low risk to medium risk in case of fresh produce that is cooked or processed by consumer or food business operator.</p> <p>Rationale:</p> <p>After cooking, the risk of microbial contamination is reduced significantly. The incidence and likelihood of illness caused by undercooked vegetables or fruits is very low. However, we would also like to request for scientific support in order to change the risk of the fresh produce, that is cooked or processed, to medium risk.</p>	<b>Thailand</b>
<p>UK believes that the tools (DT) are appropriate and should remain in the document.</p> <p>The table as presented is appropriate although it was not clear where the table had been amended to indicate medium risk in case of fresh produce that is cooked or processed by the consumer or the food business operator.</p>	<b>United Kingdom</b>
<p>Uruguay believes that where it reads 60 it should read 62.</p>	<b>Uruguay</b>

## RISK MITIGATION/RISK MANAGEMENT STRATEGIES

<p>52</p> <p>Indicator organisms should be used as indicators of faecal contamination rather than presence or concentration level of any specific pathogen. The major indicator organisms are <i>E. coli</i> and <b>enterococci</b>.</p> <p>Should there be thresholds for enterococci, in case some producers chose to use it as an indicator organism?</p>	<b>Canada</b>
<p>55</p> <p>Bacteriophages are better <b>bacterial</b> indicators of enteric viruses than faecal indicators, although coliphages cannot be absolutely relied upon as indicators for enteric viruses. A combination of two or more bacteriophages can be considered. Bacteriophages can be used as good process indicators to determine the efficacy of water treatments against enteric viruses.</p> <p>The term bacterial is misplaced. It should be in front of faecal indicators.</p>	<b>Canada</b>

56	<p>Protozoa and helminths cysts / eggs are <b>more resistant</b> than bacteria and viruses and there is no suitable indicator of their presence/ absence in irrigation water. Specific tests should be performed if the presence of these parasites is suspected.</p> <p>A word seems to be missing. More resistant to what? A treatment? Was the sense here to say that they are hardier at survival under various treatments including biocides.</p>	<b>Canada</b>
57	<p><u>Examples for determining fit-for-purpose sampling frequency and biological criteria are found in Appendix X. Examples of decision support system tools are found in Appendix Y. These examples are for illustration only.</u> [The determination of a fit-for-purpose sampling frequency can contain the following steps:]</p> <p>We recommend that the original text and subsequent bullets will be moved to an appendix/information document.</p>	<b>USA</b>
58	Should the acronym FFV used in this decision tree be defined?	<b>Canada</b>
58	Typo: comes versus come in point 3.	
58	Egypt recommends to maintaining the remaining examples and the tools (DT) are appropriate for the development of the document.	<b>Egypt</b>
58	Japan suggests that CCFH should proceed with this Annex taking into consideration of JEMRA review of the example in para 58, content and location.	<b>Japan</b>
58	<p>Comment: Kenya proposes the following amendments to the decision tree.</p> <ol style="list-style-type: none"> <li>1. Delete Q2 so that the source of water becomes Q2 as is, and the third division will cover treated and non- treated water under the source of water. Under treated water, it will cover all that is under the water source, while what is in 'NO' will come under current Q2 will be under the untreated water.</li> <li>2. Under public/Municipal water, replace the text 'no water testing required' with medium frequency testing.</li> </ol> <p>Rationale:</p> <ol style="list-style-type: none"> <li>1. Logically one determines source of water before a decision is made to use or treat.</li> <li>2. In developing countries, municipal water that is used for drinking has been found to be contaminated by several studies and therefore should be tested.</li> </ol>	<b>Kenya</b>
58	The United States recommends a footnote be added to identify the source of the example "decision tree" approach.	<b>USA</b>
58	Suggest to replace the below example with the figure 1 from the JEMRA report MRA 33	<b>FAO</b>
59	<p>Alternatively to decide on the frequency of sampling and applied biological criteria, a table assessing risk can be used as in the third illustration of Appendix 2, considering the source and the intended use of agricultural water (e.g. irrigation system, washing the fresh produce), characteristics of the fresh produce and its intended use, defining the suitability for agricultural purposes, the recommended biological threshold values and the frequency of monitoring.</p> <p>Japan suggests that CCFH should proceed with this Annex taking into consideration of JEMRA, (According to CCFH 52 report (para 93 (iii)). JEMRA was asked critically reviewing rather than validating these examples in paras 58-72 and providing recommendations on how they could be adapted in different countries/regions in a flexible manner, if possible, in countries with water scarcity and/or limited resources without putting food safety at stake)</p>	<b>Japan</b>

59	<p>Alternatively to decide on the frequency of sampling and applied biological criteria, a table assessing risk <a href="#">(as in the third illustration of Appendix 2)</a> can be <del>used as in the third illustration of Appendix 2</del><a href="#">used</a>, considering the source and the intended use of agricultural water (e.g. irrigation system, washing the fresh produce), characteristics of the fresh produce and its intended use, <a href="#">in</a> defining the suitability for agricultural purposes, the recommended biological threshold values and the frequency of monitoring.</p> <p>The sentence needs further clarification. The sentence is proposing an alternative to deciding on the frequency of sampling and the applicable criteria, and provides considerations for making those decisions; it is clear until it says “defining the suitability for agricultural purposes, the recommended biological threshold values and the frequency of monitoring,” since these are not considerations. The United States thinks the following changes clarify the sentence and capture the intent.</p>	USA
	<p><b>Examples for determining fit-for-purpose sampling frequency and biological criteria</b></p> <p>Consequential changes would include merging the text in the current paragraphs 57-63 into the appropriate appendices.</p> <p>The United States recommended that the following sections also be put in an annex/appendix, and a sentence indicating this information is in the annex added to the text:  Examples for determining fit-for-purpose sampling frequency and biological criteria  Examples of decision support system tools  To accommodate this, we would revise the text in Paragraph 57 as follows:</p>	USA
60	<p><b>Examples of decision support system tools</b></p> <p>As mentioned earlier, the United States recommended that the following sections also be put in an annex/appendix, and a sentence indicating this information is in the annex added to the text:  Examples for determining fit-for-purpose sampling frequency and biological criteria  Examples of decision support system tools</p>	
61	<p>Based on Table 1 of the 2019 FAO/WHO meeting report on Safety and Quality of Water Used in Food Production and Processing, a decision support system can be developed, using scores to assess the risk or the effectiveness of control measures related to the risk derived from the use of water. <del>It should be acknowledged that no decision tool fits in all situations.</del> The scores below are examples for illustration only. There can be other considerations that would result in a different score.</p> <p>Delete the sentence that says “It should be acknowledged that no decision tool fits in all situations,” since it duplicates the first sentence in Paragraphs 60 (“There is no single decision support system tool that applies/fits in all situations.”)</p>	USA
61	<p>Based on Table 1 of the 2019 FAO/WHO meeting report on Safety and Quality of Water Used in Food Production and Processing, a decision support system can be developed, using scores to assess the risk or the effectiveness of control measures related to the risk derived from the use of water. It should be acknowledged that no decision tool fits in all situations. The scores below are examples for illustration only. There can be other considerations that would result in a different score.</p> <p>Based on Figure 3 and Table 1 of the 2019 JEMRA report MRA 33.</p>	FAO

62	Singapore has an editorial comment for para 62. For clarity, Singapore would like to suggest for all sub point and its sub points (which are currently all in bullet form), to be numbered.	<b>Singapore</b>
63	The sum of scores should be made to evaluate <del>if sufficient guarantees can be provided to ensure whether</del> the <u>water is safe to use of water for its intended purpose</u> . The higher the sum of the scores the lower the associated risk. If the score is too low, the above scores can be used to select additional mitigation options or have an indication to which extent the biological quality of the water should be improved.	<b>USA</b>
63.2	Use of this range 3 to 5 is confusing as Appendix 1 indicates a score of 3 is unacceptable and the water should not be used unless a mitigation option is used.	<b>Australia</b>
63.3	When high or unknown risk water (wastewater, surface water, shallow ground water, other water showing high biological contamination e.g. <del>E. coli</del> <u>E. coli</u> 1000 CFU/100ml or more) and no fresh manure, excreta or sludge as fertilizer, the risk at primary production can be considered as low, if a score of 6 and more is <del>reach-reached</del> by applying the irrigation system or mitigation options in paragraph <del>60??</del> .	<b>USA</b>

#### Appendix 1: Examples of decisions based on support systems tool described in paragraph 59 to 62:

<p>This document refers to low risk for water above in 63 following use of mitigation measures, but here it talks about water being acceptable for use following application of mitigation measures.</p> <p>Should we use acceptable or low risk throughout this document for where mitigation measures were used?</p> <p>Scoring:</p> <p>Does this conflict with the range specified in 63 above?</p>	<b>Australia</b>
<p><b>Appendix 1: Examples of decisions based on support systems tool described in paragraph 59 to 62:</b> <u>The scores below are examples for illustration only. There can be other considerations that would result in a different score.</u></p> <p>To clarify these scores showed below are examples</p> <p><u>High or</u> Unknown risk water, irrigation water not in contact with the edible portion of the fresh produce (3), filtering before irrigation (1) and irrigation cessation (2) =&gt; total of 6: acceptable</p> <p>To be consistent with para 63</p> <p><u>High or</u> Unknown risk water, irrigation water in contact with the edible portion of the fresh produce (0), but filtering before irrigation (1) and irrigation cessation (2) + washing with potable water and biocide (2) + peeling (1) =&gt; total of 6: acceptable</p> <p>To be consistent with para 63</p>	<b>Japan</b>

Uruguay suggests reviewing the references to paragraphs 52 through 62.	<b>Uruguay</b>
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## Appendix 2: Other examples of decision support system tools applied in certain parts of the world.

Appendix 2 – If the examples in Appendix 2 are retained, CCFH should consider whether to delete Illustration 2, as we were unable to determine how to access Figure 6 of the LGMA from the link provided.	<b>USA</b>
<p>For the below decision support systems from ILSI, LGMA and EU (Illustration 1, 2 and 3, respectively). They were evaluated and incorporated into the JEMRA decision tree (please find the references that the JEMRA report MRA 33 used at page 71, 73 and 72, <a href="https://www.fao.org/3/ca6062en/ca6062en.pdf">https://www.fao.org/3/ca6062en/ca6062en.pdf</a>).</p> <p>The JEMRA decision tree harmonized these three national/regional decision trees and adapted them for the international purpose. Would it be possible to include figure 1 and 3 of JEMRA report MRA 33 into the Codex document, instead of the other sources?</p> <p>If we replace the example in para. 58 with the figure 1 from the JEMRA report, and add the figure 3 from the JEMRA report in para. 61. We may not need Illustration 1 and 2 at all.</p> <p>For Illustration 3, is it possible to only mention that some surrogate indicators could be used for microbiological criteria, instead of a big table? Actually, para. 63 already described the table fully, and the Illustration 3 may not be necessary.</p>	<b>FAO</b>
<p><b>Illustration 3</b> <i>Commission notice on guidance document on addressing microbiological risks in fresh fruits and vegetables at primary production through good hygiene (Official Journal of the EU, C 163, 23.5.2017, p. 1) Annex II</i></p> <p>The United States questions why the footnotes in the table in illustration 3 start with “2” and not “1.” If this information is retained in the document, the table should be formatted to not allow rows to break across pages and the header row adjusted to appear at the top when the table splits onto two pages.</p>	<b>USA</b>

## Annex II Fishery Products

2	<p>Water <del>is a key element in the production and processing of fishery products.</del> Water can be sourced from the sea or rivers or, in the case of land-based fish farming systems, from springs, wells, rivers, lakes, or other drinking water supply systems.</p> <p>Sentence found at the end of Paragraph 1.</p>	<b>USA</b>
3	Should recreational use also be included. Because of issues with boat discharges or beaches potentially affecting growing/harvesting areas.	<b>Canada</b>

4	Point No. 4 may be modified as follows:  This annex addresses the water quality used in aquaculture and fisheries and in fish processing at fishing vessels (including water used for onboard storage, ice, washing, etc.) and in on-shore processing facilities'	<b>India</b>
	The UK do not believe it is necessary to add further description of the different types of source water to mirror the guidance in Annex I as these have already been categorised earlier in the document and highlighting them again would be repetitive	<b>United Kingdom</b>
5	This text could be deleted as there is already a reference to this in the General Section paragraph 2 Suggest inclusion of footnote to the report. <a href="https://www.who.int/news-room/events/detail/2021/06/14/default-calendar/joint-fao-who-expert-meeting-on-the-microbiological-safety-and-quality-of-water-used-in-the-production-of-fishery-and-dairy-products">https://www.who.int/news-room/events/detail/2021/06/14/default-calendar/joint-fao-who-expert-meeting-on-the-microbiological-safety-and-quality-of-water-used-in-the-production-of-fishery-and-dairy-products</a>	<b>Australia</b>

## PURPOSE AND SCOPE

6	Suggest these are not recommendations but guidance for FBOs and competent authorities	<b>Australia</b>
6	Could be expanded to make similar points as Annex 1 for fresh produce.  For example, could include more detail on all water processing uses mentioned in paragraph 17 (washing fish, cleaning process areas, cooling and other processing purposes such as brining fish, glazing of frozen fish).	<b>Canada</b>
6	The purpose and scope of this annex is to provide recommendations for the quality sourcing, use and reuse of water for processing of fishery products for human consumption <del>by applying the "fit for purpose" principle and</del> using a risk based approach. Proposed wording.	<b>Colombia</b>
6	Egypt recommends that the scope of the annex is appropriate.	<b>Egypt</b>
6	Point No. 6 may be modified as follows:  The purpose and scope of this annex is to provide recommendations for the quality sourcing, use and reuse of water for processing of fish and fishery products for human consumption by applying the 'fit for purpose' principle and using a risk-based approach.	<b>India</b>
6	Comment: Kenya supports the adoption of the scope and recommends the addition of the word 'guidelines.' 'The purpose and scope of this annex is to provide guidelines and recommendations for the quality sourcing, use and reuse of water processing of fishery products for human consumption by applying the 'fit for purpose' principle and using a risk-based approach.'  Rationale: It adequately covers the content of the annex.	<b>Kenya</b>
6	Malaysia agrees with the scope of the annex.	<b>Malaysia</b>
6	Singapore is of the view that there should be consistency across the various Annexes. For example, under Annex I Fresh produce (pg 10, para 3), the purpose and scope for fresh produce goes on to elaborate on what the Annex will cover, as square bracketed below.  • PURPOSE AND SCOPE	<b>Singapore</b>



	3. The purpose and scope of this annex are to elaborate guidelines for the safe biological quality sourcing, use and reuse of water in direct and indirect contact with fresh produce (for primary production and processing) by applying the principle of 'fit for purpose' using a risk-based approach. [The annex recommends Good Hygiene Practices (GHP), risk-based, sector-specific potential prevention and intervention strategies, and provides examples and/or practical case studies for determining appropriate fit-for-purpose biological criteria (i.e. criteria for bacteria, viruses, parasites), as well as examples of the decision support system (DSS) tools such as Decision Trees (DT) to determine the water quality needed for the specific intended purpose in the fresh produce supply chain.]	
6	In paragraph 6, we agree with the proposed scope that it does not include the use and reuse of water in aquaculture or primary production at farm level.  As the scope does not include the production at farm level, we would like to propose reviewing of the paragraphs related to fish farming or fish production to be consistent with the scope such as paragraphs 2, 4, 10, and 12, etc.  Also, we would like to ask for a clarification on differences between the use of the term 'fishery products' in the Purpose and Scope and the use 'fish and fishery products' in paragraphs 13, 14 and 21. The common term used in the Code of Practice for Fish and Fishery Products (CXC 52-2003) is 'fish and fishery products'. Will it be possible to use the term 'fish and fishery products' in the scope for consistency?	<b>Thailand</b>
6	The purpose and scope of this annex is to provide recommendations for the <del>quality</del> -sourcing, use and reuse of water <del>for</del> processing of fishery products for human consumption by applying the 'fit for purpose' principle and using a risk-based approach.  Amended for clarity	<b>United Kingdom</b>
6	Uruguay agrees with the proposed paragraph.	<b>Uruguay</b>

**USE**

7	This Annex is <del>complimentary</del> <u>complementary</u> to and should be used in conjunction with the following Codex Alimentarius standards:	<b>USA</b>
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**DEFINITIONS**

9	Egypt recommends that no further description of the different types of source water is required to mirror the guidance provided in annex I, all water sources are well-defined.	<b>Egypt</b>
9	Definition of Processing facilities may be modified as follows:  Processing facilities: A facility where harvested fish are processed, graded, and packed for further transportation and consumption	<b>India</b>
9	See the <i>Code of Practice for Fish and Fishery Products</i> (CXC 52-2003) for the definitions of fish, live bivalve molluscs, shellfish, aquaculture, <del>extensive farming, intensive farming,</del> fish farming, <del>glazing</del> and <del>growing areas</del> <u>glazing</u> .  Some of the definitions mentioned in paragraph 9, such as extensive farming, intensive farming, and growing areas, are no longer appeared in the text of this Annex. We would like to propose deletions of those terms from paragraph 9.	<b>Thailand</b>

9	The United States questions whether in the definition of fishery products, "gastropods" should be qualified to exclude land snails and slugs. Fishery products: Any species of fish, including crustaceans, molluscs, gastropods, echinoderm, or part of them intended for human consumption.	<b>USA</b>
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#### WATER USED AND REUSED IN PROCESSING AND PRESERVATION

10	Should Production be included as it is referred to in the first sentence.	<b>Australia</b>
10	CCFH should proceed with this Annex taking into consideration of the progress of work on the General section and other Annexes as well as JEMRA scientific advice (JEMRA report as final version).	<b>Japan</b>
10	Position: Kenya Proposes that the additional information on water sources as indicated in the leafy vegetable annex is necessary. Rationale: This will guide users on risk assessment on the water sources, considering that it will be used independently as is captured in Para 7 of annex 1.	<b>Kenya</b>
10	Malaysia is of the view that the description of the different types of source water in Annex I is sufficient. Therefore, there is no necessity to add the description of different types of source water in this annex.	<b>Malaysia</b>
10	Singapore supports the inclusion of examples on the different types of source water, similar to Annex I Fresh Produce (pg 11, para 7) . The potential sources of water would differ between the various types of operations e.g. fishing vessels vs processing at land facilities, so it would be important to make the distinction when providing the examples.  Singapore would like to seek clarification on what example of where water is used "as an ingredient" under para 11 refers to in the fish/shellfish production and processing industry (for eg, the ingredient in making feed?).	<b>Singapore</b>
11.1	The first bullet point may be modified as follows:  • for rearing or processing	<b>India</b>
13	Many different types and sizes of fishing vessels are used throughout the world for harvesting based on the environment and the types of fish and fishery products caught or harvested. Water use in the vessels may vary from onboard preservation <del>purposes</del> to evisceration and further processing of the fishery products. The quality of the water used for onboard preservation and processing will depend on the activity.  Wording is revised.	<b>Colombia</b>
15	It is essential that the seawater used is free from <u>microbiological</u> contaminants that could pose risks to human health. For example, vessels using RSW should ensure that pumping/ballast water is taken onboard at sea away from areas where waste is eliminated.  This document should focus on microbiological hazards, therefore Japan proposes to insert "microbiological" before "contamination".	<b>Japan</b>
16.3	• Water used for rinsing the fish cavity after evisceration should be fit for purpose.	<b>India</b>

Examples of Decision Tree (DT) use on processing fish<sup>7</sup>.

Suggest that a bit more context is required to introduce these DTs, alternatively, advise the reader to review MRA 33 to understand how these DTs are to be used.	<b>Australia</b>
Both terms gut and degut are used. Suggest using gut for consistency.	<b>Canada</b>
Colombia suggests indicating that the decision tree does not allow per se making decisions in the sense that any path no matter what leads to analyzing pathogens before onshore processing, even when through further processing, risk can be eliminated using thermal processes.	<b>Colombia</b>
Egypt approves the proposed DTs and their useful for the proper use of water in the process.	<b>Egypt</b>
The Republic of Korea requests for re-discussion of the decision trees (figure 1 to 3) suggested in the drafted guideline.	<b>Republic of Korea</b>
Singapore notes that all the arrows in Figure 1 and 2 lead to the <i>V. parahaemolyticus</i> (VP) box. Hence, there is no differentiation on the different processing and/or handling methods by the operators. Singapore would like to suggest for the EWG to explore better ways to illustrate and bring the point across that various loads of VP is expected, depending on the processing done and the type of water used.	<b>Singapore</b>
We would like to propose addition of a paragraph or a sentence similar to the Annex I Fresh produce to indicate that the examples are purely for illustration, can be used voluntarily and may have to be adapted to national or local situations.  Rationale: With the additional sentence, the use of the examples is more flexible.	<b>Thailand</b>
The UK believes the DTs seem appropriate and would be useful as guides.	<b>United Kingdom</b>
In the descriptors for the figure, it would be useful to include specific wording as to whether water is or is not fit for purpose, and not just whether it contributes to the load of <i>V. parahaemolyticus</i> .	<b>USA</b>

**Figure 2:** Decision Tree example for onshore processing of marine/estuarine fish using *V. parahaemolyticus* (Vp) as an example of a fish borne pathogen.

Decision tree is for onshore processing, is it useful to mention washing at household here?	<b>Canada</b>
We believe there is a typo this (w) should be (x) instead.	
Similar to Figure 3, potable water used to make ice should be identified as fit for purpose.	<b>USA</b>

### Treatment for fit for purpose water

22.3	Risk assessment should consider the specific waterborne hazards (e.g., marine microbial contaminants) that may impact the safety <del>and quality</del> of the fishery product(s). Rationale: Risk assessment focuses on safety	<b>USA</b>
23	Where water treatment is applied, the <del>efficiency-efficacy</del> should be validated	
24	The application for which water is intended to be reused determines whether that water is fit-for-purpose <del>and/or or whether</del> a specific treatment is required before it can be used.	