

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of the  
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Organization

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Agenda item 8

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## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

Codex Committee on Food Hygiene

Fifty-second Session

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### PROPOSED DRAFT GUIDELINES FOR THE SAFE USE AND RE-USE OF WATER IN FOOD PRODUCTION

Comments in reply to CL 2021/64-FH

*Comments of Argentina, Australia, Brazil, Canada, Colombia, Costa Rica, Cuba, Egypt, European Union, India, Iran, Japan, Kenya, Malaysia, Mexico, New Zealand, Norway, Peru, Republic of Korea, Saudi Arabia, Thailand, Uruguay, USA and Food Industry Asia, FoodDrinkEurope, ICBA, ICGMA, ICUMSA, IDF/FIL, IFT, IFU*

#### Background

1. This document compiles comments received through the Codex Online Commenting System (OCS) in response to CL 2021/64-FH issued in October 2021. 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.

**Annex I**

<b>GENERAL COMMENTS</b>	<b>MEMBER / OBSEVER</b>
<p>While there are important insights throughout the document, we support shortening text where it is largely background (eg the introduction) to remove repetition. This will highlight the focus of this guidance and why it is needed in addition to other existing guidance on water.</p> <p>For instance, this work focuses on safe use of non-potable and/or recycled water arising from either shortage of potable water sources or desire/need to reuse water (or its waste). See edits in track as examples. We suggest having a single text/version of words: both “re-use” and “reuse” are present throughout document.</p>	<b>Australia</b>
<p>Considering that the scope of the document is to provide guidance for determining an appropriate and fit-for-purpose microbiological criteria, mention of other types of hazards, such as chemical hazards, should be avoided throughout the document. Chemical Hazards are out of scope. This has been mentioned in para 115 of the report of 51st session of CCFH.</p>	<b>Brazil</b>
<p>It is recommended to review the text for consistency in the use of terms. For example, the following terms are used in three consecutive definitions: food operation, food processing operation, food manufacturing operation, when in all likelihood, the same term should have been used.</p>	<b>Canada</b>
<p>Cuba supports the document. In response to the circular letter, we can say this document is highly valuable as the guidelines highlight elements to be considered when implementing used water management measures in various primary food production processes, particularly vegetables, as well as in water for irrigation and water obtained from different sources or treated and controlled using differing methods.</p>	<b>Cuba</b>
<p>The proposed draft guidelines focus on addressing biological hazards to ensure the safe use and re-use of water in food production; however, there are also concerns from chemical hazards. New Zealand asks whether it is the intention to address these in this document or provide reference to other guidelines.</p>	<b>New Zealand</b>
<b>SPECIFIC COMMENTS</b>	
<b>Use of the term “potable water”</b>	
<p>Australia considers the term potable water should be used throughout the document rather than drinking water as it is a term more commonly used by governments and industry.</p>	<b>Australia</b>
<p>Yes, the term potable water is preferable to drinking water as it is more comprehensive, well defined and applicable by food business operators (FBO's).</p>	<b>Brazil</b>
<p>The term potable water is appropriate and preferred in this context. The term is regularly used in other CODEX documents, so it would offer consistency.</p> <p>In addition, drinking water standards may include aesthetic qualities (taste) that may not be relevant to its suitability in food processing. The Purpose and Scope section of this document states: “These guidelines will not consider drinking water or domestic use of water.” If we use the term drinking water, it would be difficult to make the distinction between potable water that is relevant for food processing and drinking water standards that may include aesthetic qualities (taste) that may not always be required for food processing.</p> <p>The term potable water is well understood and it is defined in the section General Principles of the document: “Only water complying with the standards of potable water (such as those established by competent authorities having jurisdiction or the WHO Guidelines for drinking Water Quality) should be used as an ingredient in food”.</p>	<b>Canada</b>

The term potable is an internationally accepted term that already exists in numerous Codex Codes of practice.	
We are in favor of making this adjustment in the document, so it contains the term used in the country. The meaning of the current term is unclear. We suggest the following: Given that the term “drinking water” relates specifically to an activity as opposed to a production process, we believe the term “potable water” to be more suitable.	<b>Colombia</b>
Costa Rica supports the use of “potable water.” Rationale: This is the term used in the Codex and in the JEMRA report.	<b>Costa Rica</b>
Egypt recommends using the term “potable water” rather than “drinking water” throughout the document.	<b>Egypt</b>
The EUMS prefer the term “potable water” since most widely used in Codex texts and JEMRA reports. It can be considered to better reflect the scope of the guidelines e.g. by referring specifically to biological safety.	<b>European Union</b>
The word ‘potable water’ should be used instead of ‘drinking water’ in the draft guidelines Rationale: Potable water is more appropriate term and the term is already used in codex documents such as CXC 53-2003 and CAC/RCP 33-1985.	<b>India</b>
Drinking water is preferred It is recommended to add Processing as follow "Proposed Draft Guidelines for the Safe Use and Reuse of Water in Food Production and Processing "	<b>Iran</b>
Japan supports to use the term ‘potable water’ in this document. If the term ‘drinking water’ is used in the other Codex documents, they should be replaced with ‘potable water’.	<b>Japan</b>
Kenya supports the use of the term ‘Potable water’ rather than “drinking water”, since it is widely used, as the safe water to drink and/ or use for food production.	<b>Kenya</b>
Malaysia supports the term “potable water” to be used throughout the document because the term is commonly used in other Codex texts and the JEMRA report.	<b>Malaysia</b>
The term “potable water” should be used throughout the document Justification: It is the term used in local legislation and implies specifications that from the safety point of view is safe for the consumer, likewise in the definitions of the same document it is established under the term "potable water".	<b>Mexico</b>
New Zealand agrees that the term potable water should be used in place of drinking water to ensure consistency with other Codex texts	<b>New Zealand</b>
We prefer term “potable water” rather than «drinking water», since this term is used most widely in Codex texts.	<b>Norway</b>
We believe the term “drinking water” should be replaced with “potable water” throughout the document.	<b>Peru</b>
Republic of Korea suggest using potable water instead of drinking water throughout the document.	<b>Republic of Korea</b>

Saudi Arabia agrees with the co-Chairs on using the term “potable water”, since it is widely used in other Codex texts and have been previously defined.	<b>Saudi Arabia</b>
<p>We are of the opinion that the term ‘potable water’ should be used throughout the document.</p> <p>Also, in order to be in line with the General Principles iii) which is referred to the water standard established by competent authorities or the WHO Guidelines for Drinking Water Quality as well as to give flexibility to the users of the Guidelines, the phrase ‘or established by competent authorities having jurisdiction’ should be added to the definition of ‘potable water’ as follow:</p> <p>"Potable water: Freshwater fit for human consumption. Standards of potability should not be lower than those contained in the latest edition of the International Standards for Drinking-water issued by the World Health Organization or established by competent authorities having jurisdiction."</p> <p>Proposal to amend the definition of ‘fresh produce’</p> <p>We would like to further amend the definition of fresh produce as below. Since paragraphs 5 to 36 of Annex I Fresh Produce is adapted from CXC 53-2003, the definition of fresh produce of this Guidelines should also be in line with the scope of CXC 53-2003, which stated that ‘This Code covers general hygienic practices from primary production to consumption of fresh fruits and vegetables cultivated for human consumption in order to produce safe and wholesome products, in particular for those intended to be consumed raw...’</p> <p>“Fresh produce: Any fresh fruit, nuts and vegetables that are likely to be consumed raw and sold to consumers in an unprocessed (i.e., raw) form and are generally considered as perishable...”</p>	<b>Thailand</b>
Uruguay believes that using the term “potable water” is more suitable. In our country, “drinking water” does not mean anything.	<b>Uruguay</b>
CCFH decided to address water use and its quality because of questions about terms such as “potable” and “clean” water. Although the United States thinks drinking water properly reflects the quality of water intended when the term “potable” is used, the we can support use of the term “potable water” if the majority of CCFH members prefer this term. It is generally understood as water that meets standards for drinking water, as noted by reference to the WHO standard for drinking water in the proposed definition of potable water.	<b>USA</b>
<p>Use of the term “potable water” is supported, as it is already in common use and therefore both a recognised and accepted term.</p> <p>Has consideration been given to whether there is a possible allergen cross-contamination risk from the reuse of water and, more specifically, has it been established whether or not water could transfer the proteins in allergenic foods that cause reactions? If such transfer were possible, it would clearly be important to consider allergen implications throughout the Guidelines where appropriate. Illustrations of where such consideration might be appropriate could include: washing nuts and the same water being reused for washing another foodstuff; in salad washing, a mustard leaf being present in a mix of leaves but not present in a following recipe; and, in fisheries, moving between molluscs, crustacea and fish.</p>	<b>FoodDrinkEurope</b>
ICBA suggests that the term "potable" is not a common industry definition, quality standard, or specification – it is widely subject to localized interpretation and can be viewed as a colloquialism. ICBA supports replacing it with the term "drinking water" as referenced from WHO Guidelines for Drinking-Water Quality (GDWQ) 4th ed. The use of this term "drinking water" would then be replaced throughout this document wherever "potable water" is currently stated.	<b>ICBA</b>
Potable water is a better term to use, especially with respect to the need to determine fit-for-purpose, as described in this document.	<b>ICUMSA</b>
IDF prefers the term «potable water» to be used. The term «drinking water» refers to the WHO guidelines on drinking water quality. IDF notes that we may need to add definitions of potable water and drinkable water in the definitions sections.	<b>IDF/FIL</b>
IFU recommends to use the term "drinking water" as referenced from WHO Guidelines for Drinking-Water Quality (GDWQ) 4th ed. throughout the document as indicated. .	<b>IFU</b>

INTRODUCTION	
<p>1. <del>These guidelines respond to the need for a Codex document outlining</del> <u>focused on a risk-based approach to safe sourcing, use and reuse of water fit for purpose, rather than focusing on the use of potable water or water of other specified quality types (e.g. clean water). Using the risk-based approach outlined here will allow</u> <del>provides for a specific assessment of the fitness of the water for the</del> <u>an intended purpose.</u></p> <p>1. <del>Water is an important input in food, through all stages of the food chain from primary production to consumption as it is used as: an ingredient, in direct and indirect contact (e.g. washing, cooling the product or cleaning of surfaces in contact) with food and for hygiene sanitation in food businesses as well as for irrigation in agriculture, and food processing. The important role of water in food production has led to the need to ensure its quality since it can be a vehicle for the transmission of many diseases or contamination.</del></p> <p>2. <del>Water is a dwindling resource worldwide and not all food producers and processors have access to safe water sources; while for others, safe water access and waste discharge come at increasing financial and environmental costs. Consequently, it is highly desirable to minimize water use, reduce its waste, and reuse water as much as possible. For these reasons, water in food production should be managed in a way that the safety of food is ensured, while simultaneously avoiding unnecessary consumption, and waste and their associated costs.</del></p> <p>3. <del>Although</del> <u>Noting</u> <del>availability and quality of water are different in each country, region, context, setting and food establishment, in all cases it</del> <u>water</u> <del>should always</del> <u>be fit for use for each specific purpose.</u></p> <p>4. <del>Water used for food production is a critical key food safety element, since water quality can be affected by the presence of biological and chemical hazards. This applies to water used as an ingredient, in direct or indirect contact with food, and for sanitary operation and is significant throughout the food chain. To address these hazards, the water of the highest quality (i.e. potable water) is traditionally recommended to meet challenges related to variation in water sourcing, water treatment and extent of control performed by local authorities and variations in education level in food businesses. However,</del> <u>The introduction of risk-based approaches in food production and processing has provided the means to address many of these water access and quality challenges associated with recycling and reuse, according to based on the principle of using the right water quality for the intended purpose/need.</u></p> <p>5. <del>Though the safest option in food production may be the use of potable water; it is, however, often not a sustainable, viable, practical solution and other</del> <u>Types of water other than potable water may be suitable for certain purposes, provided that they do not compromise the safety of the final product for the consumer.</u></p> <p>6. <del>Substandard water quality may have serious effects on food processing facilities, hygiene practices and public health. The consequences of using water with inadequate quality (i.e. Water that is not fit for purpose) will depend on the purpose of the use and further processing or handling of potentially contaminated materials. Occasional variations in water quality can be unacceptable for some uses in the food industry and may have consequences with significant economic impacts in food production due to e.g. the withdrawal of the product from the market, or health impacts on the consumer</del></p> <p>7. <del>6. The diverse uses of w</del> <u>Water used in along the food production and processing chain can have result in different water quality requirements. Quality parameters are not the same for potable water, fish farms, food processing, etc. Therefore, the</u> <del>Requirements for water quality used along the food chain should therefore be considered in context, taking into account the purpose of the water use, the potential hazards associated with the water use and whether there is any subsequent measure to decrease the potential for contamination further along the food chain. Thus, the quality parameters are not the same for potable water, fish farms, food processing, etc. A risk-based approach to water sourcing, treatment, handling and use will identify the hazards associated with the water and its use and determine</del> <u>water treatments the water needed to undergo to meet the quality parameters specific to each intended use.</u></p>	Australia

<p>8- 7. Deciding whether water is fit for purpose should be based on an assessment of risk that considers the source water, including potential hazards linked to this water source, treatment options and their efficacy, application of multiple barrier processes and the end use of the food product (e.g. whether the food is eaten raw).</p> <p>9- 1. <del>These guidelines respond to the need for a Codex document outlining a risk-based approach to safe sourcing, use and reuse of water fit for purpose, rather than focusing on the use of potable water or water of other specified quality types (e.g. clean water). Using the risk-based approach outlined here will allow for a specific assessment of the fitness of the water for the intended purpose.</del></p> <p>40- 8. Associated annexes provide product specific guidelines for the <del>safe microbiological quality</del> sourcing of, use and reuse of water <u>of safe microbiological quality</u> in both direct and indirect contact throughout the food chain. The annexes also provide examples such as Decision tree <del>tools (DTT) tools to determinate whether water is</del> fit for purpose.</p>	
<p>Paragraph 6:</p> <p>Inadequate water quality may have serious effects on food processing facilities, hygiene practices and public health. The consequences of using water with inadequate quality (i.e. Water that is not fit for purpose) will depend on the purpose of the use and further processing or handling of potentially contaminated materials. Deviations in water quality can be unacceptable for some uses in the food industry and may have consequences with significant economic impacts in food production due to e.g. the withdrawal of the product from the market, or health impacts on the consumer.</p> <p>Rationale: the word “substandard” is too vague and implies that there is a standard available. Replace with “Inadequate”. Replace “occasional variations” with “deviations”.</p>	<b>Brazil</b>
<p>The introduction is long and repetitive. It is recommended to review the text to remove redundancies and enhance readability.</p> <p>Para 1 - The focus of the document is safety of water. It would be preferable to refer to safety of water rather than quality. This comment is applicable to the remainder of the text, wherever quality is mentioned.</p> <p>Para 2. The sentence is not clear, should the sentence read as follows instead:</p> <p>For this reason, water in food production should be managed in a way that the safety of food is ensured, while simultaneously avoiding unnecessary consumption and waste.</p> <p>Para 5. Suggestion to improve the readability of the text to read:</p> <p>"Though the safest option in food production is be the use of potable-water; it may not be a sustainable, viable, practical solution and other types of water may be suitable for certain purposes, provided that they do not compromise the safety of the final product for the consumer."</p> <p>Para 8. For precision - added text "for risk mitigation" see below as follows.</p> <p>Deciding whether water is fit for purpose should be based on an assessment of risk that considers the source water, including potential hazards linked to this water source, 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).</p>	<b>Canada</b>
<p>Paragraph 4 Water used for food production is a critical key food safety element, since water quality can be affected by the presence of microbiological and chemical hazards. Replace “biological” with “microbiological.”</p> <p>Paragraph 7 A risk-based approach for water sourcing, treatment, handling and use will identify the associated hazards and determine treatments. We suggest removing “with the water and its use.”</p>	<b>Colombia</b>

<p>Paragraph 8 Deciding whether water is fit for purpose should be based on a hazard analysis that considers the source water, including potential hazards linked to this water source, treatment options and their efficacy, application of multiple barrier processes and the end use of the food product (e.g. whether the food is eaten raw). We suggest replacing “an assessment of risk” with “a hazard analysis.” What FBOs must carry out is a hazard analysis, not an assessment of risk, as an assessment is a Codex method which must be implemented by a risk assessor.</p>	
<p>Paragraph 2 In the second paragraph, Costa Rica suggests deleting the following sentence: Consequently, it is highly desirable to minimize water use, reduce its waste, and reuse water as much as possible.</p> <p>Rationale: For the sake of consistency, the definitions in Annex II should be moved to the general part, and the Annex should refer back to the definitions contained there. This would be similar to the “Definitions” section of Annex I. DEFINITIONS: See general part.</p>	<b>Costa Rica</b>
<p>Paragraph 2: The meaning of the last sentence is quite repetitive with the preceding one and therefore they could be merged. Possible redrafting: “Consequently, it is highly desirable to minimize water use, reduce its waste, and reuse water as much as possible in food production while managing it in a way that the safety of food is ensured.”</p> <p>Paragraph 4: The EUMS propose to delete this paragraph as the first two sentences seem to repeat paragraph 1 and the last ones are repeated in paragraph 5.</p> <p>Paragraphs 6-7: The messages given in these paragraphs seem to be largely covered by other paragraphs. These paragraphs could therefore be simplified.</p>	<b>European Union</b>
<p>Para 4 Paragraph may be modified as follows: Water quality can be affected by the presence of biological and chemical hazards. As a safest option, water of the highest quality (i.e. potable water) is traditionally recommended to address these hazards and meet challenges related to variation in water sourcing, water treatment and extent of control performed by local authorities and variations in education level in food businesses.</p> <p>Rationale: The intent of the deleted text is already reflected in Paragraph 1.</p> <p>Para 5 Paragraph may be modified as follows: However, use of potable water is often not a sustainable, viable, practical solution and other types of water may be suitable for certain purposes, provided that they do not compromise the safety of the final product for the consumer. Introduction of risk-based approaches in food production and processing has provided the means to address many of these challenges, related to use of water in food production, according to the principle of using the right water quality for the intended purpose/need.</p> <p>Rationale: Modification proposed to simplify the text(without any loss of information) and bring continuity in the paragraphs.</p> <p>Para 7, Sentence 4</p>	<b>India</b>

<p>Include word 'storage' in the sentence as follows:</p> <p>A risk-based approach to water sourcing, treatment, handling, storage and use will identify the hazards associated with the water and its use and determine treatments the water needs to undergo to meet the quality parameters specific to each intended use.</p> <p>Rationale:</p> <p>Storage is an important unit in relation to water and hence appropriate to indicate storage separately.</p> <p>Para 8</p> <p>Include preposition 'of' as follows:</p> <p>Deciding whether water is fit for purpose should be based on an assessment of risk that considers the source of water, including potential hazards</p>	
<p>In para 1. line 4 suggested to add animal husbandry as follow " as for irrigation in agriculture, animal husbandry and food processing ...."</p>	<b>Iran</b>
<p>Para 1: Water is an important input in food <b>production</b>, through all stages...</p> <p>Suggested change ensures consistency with the rest of the guidelines as these relate to food production</p>	<b>New Zealand</b>
<p>Paragraph 8 - Revise as follows:</p> <p>Deciding whether water is fit for purpose should be based on an assessment of risk that considers the source water, including potential hazards linked to this water source, 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 WITHOUT STEPS THAT WOULD MITIGATE POTENTIAL HAZARDS INTRODUCED BY THE WATER SOURCE.</p> <p>Rationale: inclusion of risk mitigation here to clarify the purpose of multiple barrier water treatment processes; addition at the end makes the statement broader than "raw" and better states the concern.</p> <p>Paragraph 10 – change "determinate" to "determine"</p> <p>Rationale: editorial</p>	<b>USA</b>
<p>The term "potable" is not a common industry definition, quality standard, or specification – it is widely subject to localised interpretation and can be viewed as a colloquialism. FIA supports replacing it with the term "drinking water" as referenced from WHO Guidelines for Drinking-Water Quality (GDWQ) 4th ed. throughout the document.</p> <p>Paragraph 8 - We suggest inclusion of "for risk mitigation" here to ensure linkage to the application of multiple barrier water treatment processes.</p> <p>"8. Deciding whether water is fit for purpose should be based on an assessment of risk that considers the source water, including potential hazards linked to this water source, 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)."</p>	<b>Food Industry Asia</b>

<p>Paragraph 4, 'Chemical Hazards': Chemical Hazards are out of scope. This has been mentioned in para 115 of the report of 51st session of CCFH. So this need to be made clear in the document preferably in para 12 of this document related to – “purpose and scope”</p> <p>Paragraph 5: we propose to delete 'for certain purposes' as this is vague.</p> <p>Paragraph 6: We would leave only the following sentence in paragraph 6: "Inadequate water quality may have serious effects on food processing facilities, hygiene practices and public health. The consequences of using water with inadequate quality (i.e. Water that is not fit for purpose) will depend on the purpose of the use and further processing or handling of potentially contaminated materials". The deleted paragraph is a repetition of the text. The first sentence in this paragraph is already highlighting that inadequate quality of water may have an impact and then in second sentence it is stated that consequences depend upon the purpose and further handling. So we propose to delete the last sentence of the paragraph. We propose to substitute the word 'substandard' with the word 'inadequate'. The word “substandard” implies that there is a standard available.</p> <p>Paragraph 8: "Assessment of risk" should be replaced by "risk assessment"</p> <p>Paragraph 10: "Determinate" should be replaced by "Determine"</p>	<p><b>FoodDrinkEurope</b></p>
<p>In paras 4, 5, 7, and 9, please replace "potable" with "drinking" water. In para 8, ICBA recommends the addition of "risk mitigation" after "multiple barrier processes" to ensure its link to the application of multiple barrier water treatment processes.</p>	<p><b>ICBA</b></p>
<p>Proposed Edit to 3:</p> <p>Although availability and quality of water are different in each country, region, context, setting and food establishment, in all cases it should be fit for use for each specific purpose.</p> <p>Proposed Edit and Comment to 4:</p> <p>The term "potable" is generally not a common industry definition, quality standard, or specification – it is widely subject to localized interpretation and can be viewed as a colloquialism. ICGMA would support providing flexibility here with the term "drinking water" as referenced from WHO Guidelines for Drinking-Water Quality (GDWQ) 4th ed. throughout the document. (i.e. potable/drinking water)</p> <p>Proposed Edit to 5:</p> <p>Though the safest option in food production may be the use of potable/drinking water; it is, however, often not a sustainable, viable, practical solution and other types of water may be suitable for certain purposes, provided that they do not compromise the safety of the final product for the consumer.</p> <p>Proposed Edit to 7:</p> <p>The diverse uses of water in food production and processing result in different water quality requirements. Therefore, the requirements for water quality used along the food chain should be considered in context, taking into account the purpose of the water use, the potential hazards associated with the water use and whether there is any subsequent measure to decrease the potential for contamination further along the food chain. Thus, the quality parameters are not the same for potable/drinking water, fish farms, food processing, etc. A risk-based approach to water sourcing, treatment, handling and use will identify the hazards associated with the water and its use and determine treatments the water needs to undergo to meet the quality parameters specific to each intended use.</p> <p>Comment on 8:</p> <p>ICGMA suggests inclusion of risk mitigation here to ensure linkage to the application of multiple barrier water treatment processes.</p>	<p><b>ICGMA</b></p>

<p>Proposed Edit to 8:</p> <p>Deciding whether water is fit for purpose should be based on an assessment of risk that considers the source water, including potential hazards linked to this water source, 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).</p> <p>Proposed Edit to 9:</p> <p>These guidelines respond to the need for a Codex document outlining a risk-based approach to safe sourcing, use and reuse of water fit for purpose, rather than focusing on the use of potable/drinking water or water of other specified quality types (e.g. clean water). Using the risk-based approach outlined here will allow for a specific assessment of the fitness of the water for the intended purpose.</p>	
<p>IDF proposes significant text corrections (e.g. duplication or vocabulary) and improvements in this section</p> <p>Paragraph 4: use critical or key, not both.</p> <p>Paragraph 6:</p> <ul style="list-style-type: none"> <li>- Use of the term « substandard » implies that there is a standard available, which is not the aim of this document</li> <li>- last sentence: This seems to be the repetition of text. First sentence in this paragraph is already highlighting that inadequate quality of water may have an impact and then in second sentence it is stated that consequences depend upon the purpose and further handling. So we propose to delete the last sentence of the paragraph. If retained, we recommend the changes indicated.</li> </ul> <p>Paragraph 7, last sentence: add storage. It is important in relation to water and useful to indicate separately.</p> <p>Suggested revision for this section:</p> <ol style="list-style-type: none"> <li>1. Water is an important input in food, through all stages of the food chain from <b>initial collection, storage, treatment, distribution, use in irrigation of food crops and forage for animals, primary production, food processing through to consumption of the final food. It is used as an ingredient, in direct and indirect contact (e.g. washing, cooling the product or cleaning of equipment surfaces in contact) with food, food packaging and for hygiene sanitation in food processing. The important role of water in food production has led to the need to ensure its safety and quality since it can be a carrier for the transmission of diseases, or contamination or unwanted sensory attributes.</b></li> <li>2. Water is a <b>necessary resource worldwide, but its availability does not always match the need resulting in water being an important limiting factor for many farmers supplying food ingredients as well as for food producers and processors. Even for those with access to adequate volumes of safe water sources; while for others, this comes at an increasing financial and environmental costs. Consequently, it is highly desirable to minimize water use, reduce its waste, and reuse water as much as possible, all without compromising the safety and quality of the food. For this reason, water in food production should be managed in a way that the safety of food is ensured, while simultaneously avoiding unnecessary consumption, and waste and their associated costs.</b></li> <li>3. Although availability and quality of water are different in each country, region, context, setting and food establishment, in all cases it should be fit for <b>its intended and specific use.</b></li> <li>4. Water used for food production is a critical food safety element, <b>since water safety and quality can be affected by the presence of biological, chemical and physical hazards. This applies to water used as an ingredient, in direct or indirect contact with food, and for sanitary operation as well as throughout the food chain. To address these hazards, the water of the highest quality (i.e. potable water) is preferable, when available. However, it is important to note that there may be circumstances based on variation in availability, sourcing, treatment, government regulations as well as differences in the education and experience level of water management and/or food processing staff that create special and unique water safety and quality challenges. However, the introduction of risk-based approaches</b></li> </ol>	IDF/FIL

<p>in water management as well as food production and processing can provide the means to address many of these challenges, according to the principle of using the right level of water safety and quality for the specific or intended purpose/need.</p> <p>5. Though the safest option in food production may be the use of drinking water; it is often not an available, sustainable, viable or practical solution and other types of water safety or quality may be suitable, provided that they do not compromise the safety of the final food product for the consumer.</p> <p>6. Inadequate water safety and quality may have serious effects on food processing facilities, hygiene practices and public health. The consequences of using water not fit for the purpose will depend on the intended use as well as whether there will be further processing or handling of potentially contaminated materials. Occasional variations in water safety and quality can be unacceptable for some uses in the food industry and may have consequences with significant human health and economic impacts in food production due to widespread food poisoning and associated illnesses as well as the business cost of e.g. the withdrawal of the product from the market.</p> <p>7. The diverse uses of water in food production and processing result in different water safety and quality requirements. Therefore, the requirements for water safety and quality used along the food chain should be considered, taking into account the purpose of the water use, the potential hazards associated with the water used and whether there is any subsequent measures to decrease to an acceptable level or eliminate the potential for contamination further across the food chain. Thus, the water safety and quality parameters are not the same for drinking water, potable water, water in fish farms, bakeries, fresh vegetable and fruit processing, dairy processing, etc. A risk-based approach to water sourcing, collection, treatment, handling, distribution, storage and use, require the identification of hazards associated with the water and its use and determine treatments needed to meet the safety and quality parameters specific to each intended use.</p> <p>8. Deciding whether water is fit for its intended purpose should be based on an assessment of hazards and their associated risks that considers its source, collection, storage, treatment, handling, distribution and use, and their efficacy, application of multiple barrier processes and the end use of the final food product (e.g. whether the food is eaten raw).</p> <p>10. Associated annexes provide product specific guidelines for the safe microbiological sourcing, collection, storage, treatment, handling of, distribution, use and reuse of water in both direct and indirect contact throughout the food chain. The annexes also provide examples such as Decision tree tools (DTT) to determinate water fit for purpose.</p>	
<b>OBJECTIVES</b>	
<ul style="list-style-type: none"> <li>• Provide guidance for FBOs on the application of a risk-based approach to <u>sourcing</u> safe water <del>sourcing</del> and its use and reuse that is fit for the purpose;</li> <li>• Develop practical guidance and tools (e.g. <del>Decision Tree</del>DT-Tools) to help FBOs evaluate risks and potential interventions as part of their food safety management programmes; and</li> </ul>	<b>Australia</b>
<p>There is significant overlap between the Objectives, Purpose and Scope and Use sections of the document. It is suggested to simplify the text to minimize duplication.</p>	<b>Canada</b>
<p>We propose the following wording:</p> <p>Paragraph 11           The Guidelines for the Use and Reuse of Safe Water in Food Production aim to:</p> <p>Bullet 1: • Provide information to governments and food business operators (FBOs) on the appropriate use and reuse of safe water according to its intended purpose;</p>	<b>Colombia</b>
<p>Bullet 3</p>	<b>India</b>

<p>Replace 'food safety management programmes' with 'Food Hygiene System' as follows:</p> <ul style="list-style-type: none"> <li>• Develop practical guidance and tools (e.g. Decision Tree Tools) to help FBOs evaluate risks and potential interventions as part of their Food Hygiene System; and</li> </ul> <p>Rationale:</p> <p>Term 'Food Hygiene System' is defined in General Principles of Food Hygiene and relates to both PRPs and HACCP system.</p>	
<p>Add para 12. Provide guidance for using water in primary food production, i.e., agriculture and animal husbandry "</p>	<p><b>Iran</b></p>
<p><b>Bullet 3 and 4:</b> The practical guidances and tools (including MCs) in the annexes are extracted from existing national/local guidances. They should be clearly mentioned as examples so that users of the draft document can apply them in accordance with the existing Codex documents, taking into account local conditions.</p> <p>Japan propose to replace "Develop" by "Provide examples of" and to insert "control measures including example" in front of the term "microbiological criteria" in the 3rd and 4th bullets, para11.</p>	<p><b>Japan</b></p>
<p>Bullet 1 - We suggest a footnote referring to other texts where FBO is defined to ensure understanding.</p>	<p><b>Food Industry Asia</b></p>
<p>Bullet 1: We propose to define the word FBO</p> <p>Bullet point 3: "Food safety management programmes" should be replaced by "food safety management systems"</p>	<p><b>FoodDrinkEurope</b></p>
<p>Bullet 1:</p> <p>A footnote referring to other texts where FBO is defined is needed to ensure understanding.</p>	<p><b>ICGMA</b></p>
<p>Bullet 2:</p> <p>Under the second bullet, after water sourcing add 'collection, storage, treatment, handling, distribution'.</p> <p>Bullet 3:</p> <p>Reword 3rd bullet as follows: 'Develop practical guidance and tools (e.g. Decision Tree Tools) to help FBOs identify and evaluate hazards, associated risks and potential interventions as part of their food hygiene systems'. The term 'Food hygiene system' is defined in GPFH and relates to both PRPs and HACCP system.</p>	<p><b>IDF/FIL</b></p>
<p><b>PURPOSE AND SCOPE</b></p>	
<p>The purpose and scope of this document are to provide guidance for determining appropriate and fit-for-purpose microbiological criteria for pathogens (bacteria, viruses, parasites), guidance for safe water sourcing, guidance for use and reuse of water for across the food chain (primary production and processing) of relevant commodities, <b>including guidance for determining appropriate and fit-for-purpose microbiological criteria for pathogens (bacteria, viruses, parasites)</b>. These guidelines will not consider drinking water or domestic use of water.</p>	<p><b>Australia</b></p>
<p>Paragraph 12:</p> <p>The purpose and scope of this document are to provide guidance for determining appropriate and fit-for-purpose microbiological criteria for pathogens (bacteria, viruses, parasites) and indicator bacteria, guidance for safe water sourcing, guidance for use and reuse of water for across the food chain (primary production and processing) of relevant commodities. These guidelines will not consider drinking water or domestic use of water.</p>	<p><b>Brazil</b></p>

<p>Rationale: The microbiological criteria for water are established based on the enumeration of indicator bacteria, in most cases. In this topic, it is also important to establish the food categories covered in the scope of the document. Will the general guidelines apply to all categories of food, or just those in the annexes?</p>	
<p>Para 12: It is not clear if the scope of the document is intended to cover chemical hazards. It does refer to microbiological, chemical and physical hazards but the focus seems to be primarily on management of biological contaminants. This clarification should be made and this should be revised throughout the document.</p>	<b>Canada</b>
<p>Paragraph 12: We propose the following: The purpose and scope of this document are to provide guidance for determining appropriate and fit-for-purpose microbiological criteria for pathogens (bacteria, viruses, parasites) as well as appropriate, fit-for-purpose limits for chemical hazards. Chemical hazards were added to the sentence. Water for reuse may also contain chemical substances impacting its safety.</p>	<b>Colombia</b>
<p>Paragraph 12: The purpose and the scope seem to largely repeat the objectives. It is proposed to refer only to the "scope" as title of paragraph 12, being microbiological safety of use and re-use of water in food production. The EUMS propose to replace the last sentence of paragraph 12 by "These guidelines do not consider water for direct animal and human consumption, nor use of water in households."</p>	<b>European Union</b>
<p>Para 12, Sentence 1 Paragraph may be modified as follows: These guidelines provide a framework of general principles for making risk-based decisions on criteria for fit-for-purpose water to be used in producing safe and suitable food; and specific guidance for safe use and reuse of water across the food chain (primary production and processing) of relevant commodities. These guidelines do not cover water for drinking purposes or domestic use. Rationale: The main objective is to provide guidance on safe use and reuse of water; microbiological criteria may not always be necessary.</p>	<b>India</b>
<p>Paragraph 12: The practical guidances and tools (including MCs) in the annexes are extracted from existing national/local guidances. They should be clearly mentioned as examples so that users of the draft document can apply them in accordance with the existing Codex documents, taking into account local conditions. Japan propose to insert "risk-based control measures including example" in front of the term "fit-for-purpose microbiological criteria" in para12.</p>	<b>Japan</b>
<p>Para 12: The purpose and scope of this document are to provide guidance for determining appropriate and fit-for-purpose microbiological criteria for pathogens <b>(bacteria, viruses, parasites including the use of indicator organisms where appropriate), guidance for safe water sourcing, guidance for use and reuse of water for across the food chain (primary production and processing) of relevant food commodities. These guidelines will not provide guidance for determining appropriate and fit-for-purpose criteria for chemical hazards or consider drinking water or the domestic use of water.</b> Microbiological criteria may also be set for indicator organisms for the specific pathogen of concern or as an indicator of faecal contamination where it is appropriate. New Zealand asks whether the guidelines should address chemical hazards in water or if a reference to other publications should be provided.</p>	<b>New Zealand</b>

<p>Paragraph 12 –Modify the last statement “These guidelines will not consider drinking water or use of water IN THE HOME.” Rationale: To clarify what is meant by “domestic use of water;” domestic can mean “relating to the running of a home or to family relations” or “existing or occurring inside a particular country; not foreign or international.” We assume the intent was the former and so prefer to delete "domestic" and replace it with "in the home."</p>	<b>USA</b>
<p>Para 12: It should be made clear in this section that chemical hazards are out of the scope of this guidance.</p>	<b>FoodDrinkEurope</b>
<p>Delete 'determining appropriate and fit-for-purpose microbiological criteria for pathogens (bacteria, viruses, parasites), guidance for' and relocate this statement at the end of this paragraph as the main objective is to provide guidance on safe use and reuse of water and provide guidance on, microbiological criteria, as necessary.</p> <p>It should be clear that chemical / physical risk factors are not addressed as such, but only insofar as they affect the microbiological quality of the water.</p> <p>Suggested reworded paragraph:</p> <p>12. The purpose and scope of this document are to provide guidance for safe water sourcing, guidance for use and reuse of water for across the food chain (primary production and processing) of relevant commodities. These guidelines will not consider drinking water or domestic use of water, nor will they address chemical or physical hazards other than those that impact microbiological quality. They will determine appropriate and fit-for-purpose microbiological criteria for pathogens (bacteria, viruses, parasites), where necessary.</p>	<b>IDF/FIL</b>
<b>USE</b>	
<p>Paragraph 13 We suggest the following: The document is intended for use by FBOs (including primary producers, packing houses, manufacturers/processors, food service operators, retailers and traders) and government authorities (risk managers and assessors), as appropriate. If this document discusses the development of risk assessments, it is not only intended for operators. Indeed, developing risk assessments and making decisions based on their results also involves work from government authorities (risk managers and assessors).</p>	<b>Colombia</b>
<p>Paragraph 13: only the first sentence is on the use. The EUMS propose to delete the rest of the paragraph whose content is also addressed elsewhere in the draft.</p>	<b>European Union</b>
<p>Para 13, Sentence 2</p> <p>Sentence may be modified as follows:</p> <p>The document is intended for use by FBOs (including primary producers, packing houses, manufacture/ processors, food service operators, retailers and traders) and competent authorities, as appropriate.</p> <p>Rationale:</p> <p>This is almost a repetition of what is stated to a large extent in Para 12. Hence this deletion is proposed. Necessary modifications have been proposed in Para 12 to suitably address this deletion.</p>	<b>India</b>

<p>Para 13:</p> <p>Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CXG21-1997) should be added in the list, if this document provides guidance for risk based example MC for water. The practical guidances and tools (including MCs) in the annexes are extracted from existing national/local guidances. They should be clearly mentioned as examples so that users of the draft document can apply them in accordance with the existing Codex documents, taking into account local conditions.</p> <p>Japan propose to amend the 2nd sentence in para13 as follows :</p> <p>This document provides a risk-based framework of general principles and examples for making decisions on control measures including example microbiological criteria for fit for purpose water...</p>	<p><b>Japan</b></p>
<p>Para 14:</p> <p>These guidelines are... .. Principles and Guidelines for The Conduct of Microbiological Risk Management (MRM) (CXG 3-2007), and Principles and Guidelines for The Conduct of Microbiological Risk Assessment (CXG 30-1999) <b>and the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Food (CXG 21-1997).</b></p> <p>Suggest including a reference to the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Food (CXG 21-1997) if the document intends to provide guidance for establishing microbiological criteria for water.</p>	<p><b>New Zealand</b></p>
<p>Paragraph 14: at the end of the paragraph we would add: "and Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CAC/GL 21-1997)".</p>	<p><b>FoodDrinkEurope</b></p>
<p>Para 14 At the end of paragraph 14 add reference to the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CAC/GL 21-1997) .</p>	<p><b>IDF/FIL</b></p>
<p><b>GENERAL PRINCIPLES</b></p>	
<p>Gp iv:</p> <p>iv. Re-use of water should not introduce hazards in foods that cannot be controlled to an acceptable level.</p> <p>Rationale: For consistency with the definition of control measure (any action or activity that can be used to prevent or eliminate a hazard or reduce it to an acceptable level).</p>	<p><b>Brazil</b></p>
<p>There is significant overlap in several of the principles. We would suggest that many of the principles in the section should be in the body of the guidance. The one key principle is that water, including ice and steam and reuse water, used at any stage in food production, should not compromise the safety of the finished food for consumers.</p>	<p><b>Canada</b></p>
<p>GP i. We suggest the following:</p> <p>i. Water used at any stage of food production must be safe</p>	<p><b>Colombia</b></p>
<p>Gp iv. Note that this section is numbered differently from the rest of the draft.</p> <p>It is proposed to reword point iv as follows: "Re-use of water should be encouraged but should not introduce...."</p>	<p><b>European Union</b></p>
<p>General principle vi.</p> <p>Shift the point 6 below to Section 2: Food Safety Management Programmes, after paragraph 23.</p>	<p><b>India</b></p>

<p>vi. Water re-use systems should be subjected to on-going, risk-based monitoring of adequate parameters and verification by testing. The frequency of monitoring and verification are dictated by such factors as the source of the water or its prior condition, the efficacy of any treatments, and the intended reuse of the water.</p> <p>Rationale:</p> <p>The point does not appear to be a general principle.</p>	
<p>General principle i. As described in para 2 in Annex 1, use of water is a part of overall management strategy and should ensure the safety of finished foods in conjunction with other control measures applicable at each step in food chain.</p> <p>Japan propose to amend the 1st bullet as follows.:</p> <p>i. Use of water in conjunction with applicable control measures at any stage of food production should not compromise the safety and suitability of finished foods for consumers.</p> <p>(To be consist with the purpose of GPFH, "suitability" is inserted in our porposal.)</p>	<b>Japan</b>
<p>GP ii. READS: ... a risk-based approach to ensure the safety of finished foods for consumers. SHOULD READ: ... a risk-based approach to ensure the safety of finished foods for consumers. [Translator's Note: The proposed edit affects the Spanish version only, not the English version]</p> <p>GP vi. READS: ... as the source of the water or its its prior condition; SHOULD READ: as the source of the water or its its prior condition [Translator's Note: The proposed edit affects the Spanish version only, not the English version]</p>	<b>Peru</b>
<p>Revise principle iii as follows:</p> <p>Only water MEETING OR EXCEEDING the standards of potable water (such as those established by competent authorities having jurisdiction or the WHO Guidelines for Drinking Water Quality) should be used as an ingredient in food.</p> <p>Rationale - Some operations may require higher water qualities (like demineralized water) and so we recommend deleting "complying with" and replacing it with "meeting or exceeding."</p>	<b>USA</b>
<p>General principle iii: This general principle does not appear to be aligned with Section 2, paragraph 19, as it states that "only water complying with the standards of potable water ... should be used as an ingredient in food." For consistency, it is therefore suggested that this principle be reworded along the following lines: "When water is used as an ingredient in food, the use of water complying with the standards of potable water (such as those established by competent authorities having jurisdiction or the WHO Guidelines for drinking Water Quality) is the safest option."</p> <p>General principle V wording should be reworded in the following way in our opinion: Treatments for reuse water for a fit for purpose use should be based on a risk assessment of the sourced reuse water. Where treatments of reuse water are deemed necessary, they should ensure hazards are controlled to an acceptable level.</p>	<b>FoodDrinkEurope</b>
<p>Gp iii., please replace the word "potable" with "drinking"</p>	<b>ICBA</b>
<p>Gp iii:</p> <p>Only water complying with the standards of drinking water (such as those established by competent authorities having jurisdiction or the WHO Guidelines for drinking Water Quality) should be used as an ingredient in food.</p>	<b>ICGMA</b>
<p>Principle iii: Water derived from whey and other milk products can be purified to the extent that makes it suitable as ingredients in cheese and other dairy products. Please reword as follows: iii. Water used as an ingredient in food should meet the WHO microbiological guidelines for drinking water and any microbiological specifications of the competent authority having jurisdiction.</p>	<b>IDF/FIL</b>

<p>Suggest adding text to principle iv:</p> <p>iv. Water should be obtained from appropriate sources and be of a quality that enables treatment, when necessary, by the means available to responsible party which could be a competent authority or the food business, to render the water fit for its intended purpose.</p> <p>Suggest adding new principle v:</p> <p>v. Treatments for reuse water for a fit for purpose use should be based on a risk assessment of the sourced reuse water. Where treatments of reuse water are deemed necessary, they should ensure hazards are controlled to an acceptable level.</p> <p>Principles iv, vi and vii: These are elaborate measure to ensure that only water fit for purpose is used. These are not principles. IDF suggests it to be shifted at end of Section 2, with the following rewording:</p> <p>vi. Water re-use systems should be subjected to on-going, risk-based monitoring of identified and established parameters and verification by direct evaluation of the systems used for collection, storage, treatment, handling and use as well as through testing. The frequency of monitoring and verification are dictated by such factors as the source of the water, its prior condition, the efficacy of any treatments, and the intended use and/or reuse of the water.</p> <p>vii. Treatment or reconditioning of water intended for reuse should be based on knowledge of the types of contaminants the water may have acquired from its previous use, and any physicochemical parameters consequential to the treatment or reconditioning (e.g. particulates or organic material in the water), as well as the intended reuse of the water. Also additional technical measurements like positive pressure difference between food stuff and water in heat exchangers are appropriate solutions to ensure food safety.</p>	
<p><b>DEFINITIONS</b></p>	
<p>The definitions for reuse water and recycled water overlap. Both describe water that can be recovered from a food manufacturing operation, reconditioned and used in a subsequent processing operation. If there is a genuine difference, this should be clarified.</p>	<p><b>Australia</b></p>
<p>Water fit for purpose: water which is determined through an assessment of risk to be safe when used as intended used for an intended purpose.</p> <p>Rationale: Replace “as intended” for “when used for an intended purpose”</p> <p>Reconditioning: The treatment of water intended for reuse by means designed to reduce or eliminate microbiological contaminants, according to its intended use (Proposed Guidelines for the Hygienic Reuse of Water (Including Reclaimed Water) in Food Manufacturing Plants CX/FH 99/13).</p> <p>Rationale: it needs to be clear that physical/chemical hazards are outside the scope of this guidance. Including chemical/physical hazards throughout the document creates confusion.</p>	<p><b>Brazil</b></p>
<p>Reconditioning:</p> <p>A definition of the term recondition may be unnecessary. It is clear that recondition means treatment of the water, as the two terms treatment and recondition seem to be used interchangeably in the text. Instead a sentence could be included in the text to indicate that “water intended for reuse should be treated/reconditioned to reduce or eliminate microbiological, chemical and physical contaminants according to its intended use”.</p> <p>Risk assessment:</p> <p>“Risk assessment” is defined in the Codex Procedural Manual, in the section on “Definition of Risk Analysis Terms Related to Food Safety, as “A scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization.” Canada recommends referring to the existing definition, and not introducing a new definition for this term, which could lead to confusion. There does not seem to be a rationale for the introduction of an alternate definition for risk assessment.</p>	<p><b>Canada</b></p>

<p><b>Reclaimed Water:</b></p> <p>While the definition of reclaimed water focuses on reuse of water resulting from food processing operations, we note that the term is used in conjunction with wastewater, in paragraphs 7 and 9 of Annex I.</p> <p>It is unclear whether the reclaimed water in this definition is meant to include the wastewater referenced in paragraphs 7 and 9, or what is included in the scope of wastewater.</p> <p>In the subsequent CCFH discussions and revision of the document, it would be important to ensure clarity of the various terms occurring in the document, including what is meant by wastewater when used in this document.</p> <p>Wastewater is used in the text but it is not clear what the term includes and how it relates to the reuse water categories, i.e., recycled water and reclaimed water. Are these considered to be categories of wastewater? What about other types of wastewater (e.g., sewage) that may be treated and used for irrigation? Note that some of the examples presented include categories such as treated sewage.</p>	
<p><b>Hazard Identification and Risk Control:</b> An analysis to identify hazards and risk and determine appropriate ways to eliminate the hazard or control the risk when the hazard cannot be eliminated (risk control).</p> <p>This is different from a risk analysis: The scientific component of the risk analysis which provides a systematic way of estimating, qualitatively or quantitatively, the risk of spreading disease within a community through contaminated food. Risk assessments follow a determined methodology defined by the Codex Alimentarius Commission. It includes the following steps: (i) Hazard identification; (ii) Hazard characterization; (iii) Exposure assessment; and (iv) Risk characterization (WHO/FAO 2007; PAHO, 2021).</p> <p>We suggest the following:</p> <p>Potable water: Water fit for human consumption.</p> <p>We suggest the following:</p> <p>Water fit for purpose: water which is determined to be safe when used as intended</p> <p>Safety is not determined by risk assessments.</p>	<b>Colombia</b>
<p>“Reused water” and “recycled water” are two definitions which seem very close to each other. The difference should be clarified better or it should be considered to use one single definition.</p>	<b>European Union</b>
<p><b>Risk assessment</b></p> <p>Align the definition with the definition in Codex Procedural Manual (Section IV: Risk Analysis - Definitions of Risk Analysis Terms Related to Food Safety) as follows:</p> <p>A scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization.</p> <p>Rationale:</p> <p>The definition in Codex Procedural Manual is a reference</p> <p>Potable water</p> <p>Definition may be modified as follows:</p>	<b>India</b>

<p>Potable water: Water fit for human consumption.</p> <p>Rationale:</p> <p>There is no definition of 'fresh' in relation to water.</p>	
<p>Throughout this document, a term "water sourcing" is used without the definition. Therefore, Japan proposes the following definition: the act of identifying and obtaining water for food production from a particular water sources, e.g. ground water, surface water, captured water</p> <p>Risk assessment is defined in the Codex Procedure manual. So to avoid confusion, we proposes to use a new term "Water risk assessment" throughout this document and to define as follows:</p> <p>Water Risk assessment: A systematic examination to identify hazards determine appropriate ways to prevent, eliminate the hazard or reduce it to an acceptable level when the hazard cannot be eliminated for the purpose of determining fit-for purpose water sourcing, use and reuse. (Or) A systematic evaluation to characterize risk and to determine risk mitigation strategies to reduce the risk within the acceptable level for the purpose of determining fit-for-purpose water sourcing, use and reuse,</p> <p>Japan proposes to delete the term "Recycled water" in this document since the differences between reuse water and recycled water are not clear.</p>	<b>Japan</b>
<p>In the definition of Recycled Water, Uruguay suggests the following addition after "food manufacturing operation": "or water reused in the same operation following reconditioning (Proposed Guidelines..."</p>	<b>Uruguay</b>
<p>Clean Water – Revise the definition as follows:</p> <p>Water which does not MEET THE CRITERIA FOR POTABLE WATER BUT DOES NOT compromise the safety of the food in the context of its use (Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003)).</p> <p>Rationale - Proposed text makes a clearer distinction between the definitions of clean water and potable water. Also suggest to delete the source of the definition (which would no longer apply)--Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003).</p> <p>Potable Water – Change "freshwater" to "water" and delete the second sentence on standards of potability.</p> <p>Potable water: WATER fit for human consumption.</p> <p>Rationale - There is no definition of freshwater, so this term makes the definition unclear; reference to standards of potability is explanatory information rather than a definition. General Principle iii says "Only water complying with the standards of potable water (such as those established by competent authorities having jurisdiction or the WHO Guidelines for drinking Water Quality) should be used as an ingredient in food;" thus other standards (e.g., US EPA standards for drinking water) may apply.</p> <p>Risk assessment – If there is a need to keep this definition, it should be revised to use the Codex definition in the Principles and Guidelines for the Conduct of Microbiological Risk Assessment (CXG 30-1999):</p> <p>"A scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization." The definition provided ("A systematic examination to identify hazards and risk and determine appropriate ways to eliminate the hazard or control the risk when the hazard cannot be eliminated (risk control).") is text that can be worked into Section 1 on Risk Assessment and Monitoring if necessary. (Note that we recommend changing the title of that section.) Alternatively (and our preference), use the term "assessment of risk" and apply the definition used in this document for risk assessment.</p>	<b>USA</b>

<p>Rationale – We do not see a reason to create a definition different from that previously defined for Codex purposes; paragraph 14 indicates that these guidelines are to be used in conjunction with CXG 30-1999, and it would be confusing to provide a definition of risk assessment in this document that differs from the one in CXG 30-1999. Moreover, we think that this document does not mean “risk assessment” as defined by Codex when it uses that term.</p> <p>Reuse water. Reclaimed water, and Recycled water –</p> <p>Can the definitions be further clarified or explained somewhere? There seems to be overlap in these terms that makes them confusing. Does reuse water include reclaimed water?</p> <p>(Reuse water is water recovered from a processing step and reclaimed water is water removed from a food product, which would occur at a processing step.) Is reuse water a subset of recycled water? (Both appear to be obtained from a manufacturing operation and are treated as necessary.) Also, as previously noted, based on these definitions, there does not appear to be a term for water that is recycled/reused in primary production settings (e.g., aquaculture, growing produce - including hydroponics) because the water is “obtained from a food manufacturing operation.” We previously proposed a definition that would accommodate such practices by including “food production” in addition to food processing:</p> <p>Recycled water: Water, other than first-use or reclaimed water, which has been obtained from a step in a food production or processing operation to be reused in the same or a subsequent step of the operation (after reconditioning when necessary)</p> <p>Alternatively, the term “reuse water” can be expanded beyond processing as follows:</p> <p>Reuse water: Water that has been recovered from a step within the food operation, including from the food components, and/or water that, after reconditioning treatment(s) as necessary, is intended to be REUSED in the operation.</p> <p>The United States recommends either defining or clarifying in the text the difference between deep well water versus shallow well water because these distinctions are made further down in the document.</p>	
<p>We suggest revision to the name "Potable water" to "Drinking water" and a revision to the definition such that it can be applied more broadly and not just specifically to fresh water. We also suggest a footnote after the definition that says "Standards of drinking water should not be lower than those contained in the latest edition of the International Guideline for Drinking-Water Quality issued by the World Health Organization [Codex Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003)]"</p> <p>"Drinking water: Water fit for human consumption."</p> <p>We suggest adding an additional definition on "Food Safety Management System" to ensure alignment in understanding as its use in Section 1. We also suggest adding a footnote after the definition to make reference to ISO 22000:2018.</p> <p>"Food Safety Management System: A systematic approach to managing food safety hazards within an organisation and across the food chain through policies, objectives, and procedures intended to prevent foodborne illness and ensure that the food/beverage will not cause an adverse health effect to the consumer when prepared or consumed in acceptance with its intended use."</p>	<b>Food Industry Asia</b>
<p>We would replace the paragraph under 'risk assessment' with the following: 'A scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization'. This is as per Codex procedural Manual: "Definitions of risk analysis terms related to food safety."</p> <p>Under potable water, the term 'freshwater' should be deleted and replaced by 'water'. There is no definition of 'fresh' in relation to water.</p>	<b>FoodDrinkEurope</b>

<p>ICBA proposes the definition for "Food Safety Management System" be added to provide a common understanding in its use within Section 1 "Risk Assessment and Monitoring" (referred to in para 17). The proposed definition is the one used by ISO that is commonly accepted, i.e., "Food Safety Management System: a systematic approach to managing food safety hazards within an organization and across the food chain through policies, objectives, and processes intended to prevent foodborne illness and ensure that the food/beverage will not cause an adverse health effect to the consumer when prepared or consumed in accordance with it's intended use." Source of the definition is ISO 22000:2018 and it could be added as a footnote.</p> <p>ICBA suggests that the definition of "Potable water" be changed to "Drinking water: Water fit for human consumption." with a footnote added: "Standards of drinking water should not be lower than those contained in the latest edition of the International Guidelines for Drinking-Water Quality issued by the World Health Organization (Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003))". ICBA recommends this change in that the definition applies more broadly to water as opposed to freshwater sources specifically.</p>	<b>ICBA</b>
<p>ICGMA Comment on "Water fit for purpose":</p> <p>As an example: For strawberries in the U.S. drip irrigation is used, so water is unlikely to be released on to the fruit.</p> <p>In other geographies where furrow irrigation is used, water may be dispersed on to the fruit.</p> <p>Thus, intended use of the water (including application of the water) should be considered as the risk assessment.</p> <p>ICGMA Proposed Edit to "Water fit for purpose":</p> <p>Water fit for purpose: water which is determined through an assessment of risk to be safe for intended use.</p> <p>ICGMA Comment for New Definition, "Food Safety Management System":</p> <p>ICGMA suggests adding a definition for Food Safety Management System to ensure alignment in understanding as it is used in Section 1.</p> <p>ICGMA Proposed Edit for New Definition, "Food Safety Management System":</p> <p>Food Safety Management System: A systematic approach to managing food safety risks within an organization and across the food chain through policies, objectives, and procedures intended to prevent foodborne illness and ensure that the food/beverage will not cause an adverse health effect to the consumer when prepared or consumed in acceptance with its intended use.</p> <p>ICGMA Proposed Footnote for New Definition, "Food Safety Management System":</p> <p>ISO 22000:2018</p> <p>ICGMA Comment for New Definition, "Drinking water":</p> <p>ICGMA suggests this definition apply more broadly and not just specifically to fresh water.</p> <p>ICGMA Proposed Edit for New Definition, "Drinking water":</p> <p>Drinking water: Water fit for human consumption.</p> <p>ICGMA Proposed Footnote for New Definition, "Drinking Water":</p> <p>Standards of drinking water should not be lower than those container in the latest edition of the International Guideline for Drinking-Water Quality issued by the World Health Organization [ Codex Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003)]</p> <p>ICGMA Proposed Edit to "Potable water":</p> <p>Potable water: Fresh water fit for human consumption. Standards of potability should not be lower than those contained in the latest edition of the</p>	<b>ICGMA</b>

<p>international Standards for Drinking water issued by the World Health Organization (Code of Hygienic Practices for Fresh Fruits and Vegetables (CXC 53 2003))</p> <p>ICGMA Comment on "Risk assessment": Need to ensure this definition is consistent with the Codex Procedural Manual.</p>	
<p>Water fit for purpose: History of safe use is an important aspect and should be referred here to avoid undue need for risk assessment in all cases. Suggested rewording:</p> <p>Water fit for purpose: water which is determined through hazard assessment, assessment of risk or demonstrated history of safe use, to be safe when used for an intended purpose.</p> <p>Clean water: This is essentially same as that for 'water fit for purpose'. Also, the term is used only in paragraph 9 as an example of specific quality types which the document does not intend to focus upon. A definition in one of the earlier draft was 'Clean water: natural, artificial or purified seawater, brackish water or fresh water that does not contain micro-organism, harmful substances or toxic plankton in quantities capable of directly or indirectly affecting the health quality of food' which appears more appropriate here if the definitions of both the terms ('water fit for purpose' and 'clean water') are to be retained.</p> <p>We wonder whether this definition should be included in the annexes for fresh produces and the for fish products. It will not be useful for the dairy annex.</p> <p>Potable water: Delete « fresh » and specify that the standards of potability is the microbiological standards, only. Suggested rewording: Potable water: Water fit for human consumption. Microbiological standards should not be lower than those contained in the latest edition of the International Standards for Drinking-water issued by the World Health Organization (Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003).</p> <p>Reuse water : suggested rewording:</p> <p>Reuse water: Water that has been recovered from a processing step(s) within the food operation, including from the food components and/or water that, after effective reconditioning treatment(s), is intended to be (re-)used somewhere in the food processing operation. (JEMRA Review 2018)</p> <p>Recycled water: delete 'when necessary'.</p> <p>Suggested rewording:</p> <p>Risk assessment: A systematic examination to identify hazards and their associated risk(s) to identify ways to eliminate or reduce the hazard to attain and acceptable level of risk control</p> <p>Add definition:</p> <p>Risk Management: Identification of a food safety problem; establishment of a risk profile; ranking of the hazard for risk assessment and risk management priority; establishment of risk assessment policy for the conduct of the risk assessment; commissioning of the risk assessment; and consideration of the result of the risk assessment (Codex Procedural Manual).</p> <p>Reconditioning: Is this to address only microbiological or does it also need to address chemical and physical hazards and their risk? If so, additional references to these hazards are required in the introductory sections of prior pages. And delete the reference, as it has not been recognized at Step 8 of the Codex procedure.</p>	IDF/FIL
<p><b>SECTION 1: RISK ASSESSMENT AND MONITORING</b></p>	

<p>Para 17. In all situations, water sourcing, use and reuse guidance should be part of an FBO’s prerequisite hygiene and HACCP programmes.</p> <p>Para 18. 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 programme or a structured food safety management system (FSMS) and with verification and monitoring to ensure the plans/systems are operating as expected.</p>	<b>Australia</b>
<p>The term “risk assessment” is inadequate. Risk assessment is a term established in the scope of Codex Alimentarius, for which definition is well defined in the document of Principles and guidelines for conducting microbiological risk assessment (CAC/GL 30-1999). The approach proposed in this document establishes an evaluation of hazard/contamination, assessed by monitoring water quality, as well as appropriate management measures. Risk Assessment is a scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization.</p>	<b>Brazil</b>
<p>Para 18. (First Bullet) We would suggest using the term « qualitative risk assessment » for consistency with the subsequent bullets, and use of the term in other Codex texts. (Read text as follows)</p> <ul style="list-style-type: none"> <li>• Qualitative risk assessment (least comprehensive) - e.g. sanitary inspection, used in evaluating and managing risks from irrigation water and rapid assessment of water quality;</li> </ul>	<b>Canada</b>
<p>We believe it would be relevant to review the contents of ISO 22000, paragraph 8.5.2.3 on hazard assessments for this paragraph. “8.5.2.3 Hazard assessment</p> <p>The organization shall conduct, for each identified food safety hazard, a hazard assessment to determine whether its prevention or reduction to an acceptable level is essential.</p> <p>The organization shall evaluate each food safety hazard with regard to:</p> <ol style="list-style-type: none"> <li>a) the likelihood of its occurrence in the end product prior to application of control measures;</li> <li>b) the severity of its adverse health effects in relation to the intended use (see 8.5.1.4).</li> </ol> <p>The organization shall identify any significant food safety hazards.</p> <p>The methodology used shall be described, and the result of the hazard assessment shall be maintained as documented information.</p> <p>Chemical hazards should also be considered in the analysis.</p>	<b>Colombia</b>
<p>Para 17</p> <p>Paragraph may be modified as follows:</p> <p>Furthermore, monitoring can be used to inform risk management by identifying safety issues that need to be addressed in a food hygiene programme to ensure the quality of water and therefore, the safety of foods.</p> <p>Rationale:</p> <p>Term ‘Food Hygiene System’ is defined in General Principles of Food Hygiene and relates to both PRPs and HACCP system</p>	<b>India</b>
<p>Replace microbiological with biological throughout the whole text</p>	<b>Iran</b>
<p>Revise to use a term other than “risk assessment” unless it is being used consistent with the Codex definition provided above. This term could be “assessment of risk ” (which is used in paragraph 8) or “evaluation of risk” and then could then be defined using the definition given in the document</p>	<b>USA</b>

<p>for “risk assessment.” This would result in consequential changes throughout the document, such as the header prior to paragraph 47 (RISK ASSESSMENT TO DETERMINE FIT FOR PURPOSE). (We do not point out in our comments each place in the document where this change would need to be made.)</p> <p>Paragraph 17 and Section 2:</p> <p>Reference is made to a “food safety management system (FSMS)” in paragraph 17, whereas Section 2 refers to Food Safety Management Programmes.” A single term should be used if these are intended to mean the same thing; if the terms mean different things they should be defined.</p> <p>Rationale: use of different terms to mean the same thing is confusing.</p>	
<p>Para 18, last bullet, please replace "potable water" with "drinking water"</p>	<p><b>ICBA</b></p>
<p>Para 18 Bullet 3: Quantitative Microbial Risk Assessment (QMRA) – most comprehensive – e.g. guiding drinking water reuse, wastewater use in agriculture, water supply systems.</p>	<p><b>ICGMA</b></p>
<p>To each mention of water sourcing, add 'collection, storage, treatment, handling, '.</p> <p>Replace Food Safety Management System with the term used in GPFH: food hygiene system.</p> <p>Suggested rewording for this section:</p> <p>15. Risk assessment (RA) 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.</p> <p>16. RAs can be used to set target objectives for water sources and treatments for achieving public health outcomes, water quality values, performance targets (e.g. FSOs, POs), acceptable levels of risk, and treatment process efficacies; Monitoring is used to generate data for the development of a risk profile or to inform RA.</p> <p>17. Furthermore, monitoring can be used to inform risk management by identifying safety issues that need to be addressed in a hygiene programme or a food hygiene system to ensure the safety and quality of water and therefore, the safety of foods.</p> <p>18. In the context of safe water sourcing, collection, storage, treatment, handling, use and reuse, RAs can include the following approaches:</p> <ul style="list-style-type: none"> <li>• Written assessment (least comprehensive) -a written onsite as well as document-based evaluation from which a written descriptive assessment is generated. Examples include a sanitary inspection, used in evaluating and managing risks from irrigation water and rapid assessment of water quality;</li> <li>• Semi-quantitative RAs – development and use of risk matrices that establish categories of risks from high to low that include consideration of sanitary conditions including 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, handling;</li> <li>• Quantitative Microbial Risk Assessment (QMRA) – most comprehensive – a mathematical modeling approach used to estimate the risk of illness when a population is exposed to pathogenic microorganisms. QMRA helps identify how much of an impact a pathogenic microorganism will have on the health of the population e.g. guiding potable water reuse, wastewater use in agriculture, water supply systems.</li> </ul>	<p><b>IDF/FIL</b></p>
<p><b>SECTION 2: FOOD SAFETY MANAGEMENT PROGRAMMES</b></p>	
<p>41- 9. <del>Although the safest option in food production might be the use of potable water quality; this is often not a feasible, practical or responsible solution and other types of water could be fit for some purposes provided that they do not compromise the safety of the final product for the</del></p>	<p><b>Australia</b></p>

<p>consumer. However, in all situations, water sourcing, use and reuse guidance should be part of an FBO’s prerequisite hygiene and HACCP programmes.</p> <p><del>12.</del> <del>10.</del> Approaches to food safety management have been adapted to water safety highlighting the strong existing synergies between the two areas. Both like food safety management, water safety and food safety management should be risk – and evidence-based, with reduction measures implemented within the framework of an overall water safety programme or a structured food safety management system (FSMS) and with verification and monitoring to ensure the plans/systems are operating as expected.</p> <p><del>13.</del> <del>11.</del> Risk-based water safety management is a tool for involves control, monitoring and verification and therefore requires complete knowledge of the system, the diversity and magnitude of the hazards that may exist, and the capacity of existing processes and infrastructure to address and control risks.</p> <p><del>14.</del> <del>12.</del> Risk-based water management plans should, in addition to addressing safe water sourcing, use or reuse also consider many factors when developing and implementing the planation. Additional factors to be considered could includesuch as occupational safety for workers, need for special expertise, investments, cost-benefit analyses and management of consumer perceptions.</p> <p><del>15.</del> <del>13.</del> <del>Water safety risk management requires an</del>Water risk assessment would identification offy potential hazards (microbiological, chemical, physical agents with the capacity to cause damage to water safety) and their sources. <del>Once potential hazards and their sources have been identified</del>assess and compare, the risk associated with each hazard <del>or hazardous event, determine should be compared so that</del> priorities for risk management. This assessment should be <del>can be established and</del> documented. A semi-quantitative matrix might be useful to identify hazards and prioritize control measures for risk management purposes.</p>	
<p>Brazil proposes the following wording for the Section 2:</p> <p>Title: SECTION 2: FOOD <b>HYGIENE SYSTEM</b></p> <p>Paragraph 20. Approaches to food safety management have been adapted to water safety highlighting the strong existing synergies between the two areas. Both water safety and food safety management should be risk – and evidence-based, with control measures implemented within the framework of an overall water safety program or a structured Food Hygiene System and with verification and monitoring to ensure the plans/systems are operating as expected.</p> <p>Rationale: Replace “reduction” for “control”. Replace “Safety Management System” for “Food Hygiene System” for consistency with CXC 1-1969.</p> <p>Paragraph 23. Water safety risk management requires an identification of potential microbiological hazards and their sources. Once potential hazards and their sources have been identified, the risk associated with each hazard or hazardous event should be compared so that priorities for risk management can be established and documented. A semi-quantitative matrix might be useful to identify hazards and prioritize control measures for risk management purposes.</p> <p>Rationale: it needs to be clear that physical/chemical hazards are outside the scope of this guidance. Including chemical/physical hazards throughout the document creates confusion.</p>	<p><b>Brazil</b></p>
<p>Para 19. We would suggest to revise the sentence with the proposed edits for clarity and accuracy. Potable water is the safest option. We also suggest replacing the term “often” with the proposed revision as it appears to be making a categorical statement. (Read text as follows)</p> <p>Although the safest option in food production is generally the use of potable water; this often may not be a feasible, practical or responsible solution and other types of water could be fit for some purposes provided that they do not compromise the safety of the final product for the consumer. However, in all situations, water sourcing, use and reuse guidance should be part of an FBO’s prerequisite hygiene and HACCP programmes.</p>	<p><b>Canada</b></p>

<p>Para 22. Canada recommends "deletion of this paragraph", as these are factors outside the mandate of Codex (ie., food safety and fair practices in the food trade).</p>	
<p><del>Paragraph 20 Approaches to food safety management have been adapted to water safety highlighting the strong existing synergies between the two areas. Both water safety and food safety management should be risk – and evidence-based, with reduction measures implemented within the framework of an overall water safety programme or a structured food safety management system (FSMS) and with verification and monitoring to ensure the plans/systems are operating as expected.</del> <u>Approaches to food safety management have been adapted to water safety highlighting the strong existing synergies between the two areas. Both water safety and food safety management should be risk – and evidence-based, with reduction or mitigation measures implemented within the framework of an overall water safety programme or a structured food safety management system (FSMS) and with verification and monitoring to ensure the plans/systems are operated as expected.</u></p> <p><del>Paragraph 21-Risk-based water safety management is a tool for control, monitoring and verification and therefore requires complete knowledge of the system, the diversity and magnitude of the hazards that may exist, and the capacity of existing processes and infrastructure to address and control risks.</del> <u>Risk-based water safety management is a tool for control, monitoring and verification, which must be validated; it therefore requires complete knowledge of the system, the diversity and magnitude of the hazards that may exist, and the capacity of existing processes and infrastructure to address and control risks.</u></p>	<p><b>Colombia</b></p>
<p>Paragraph 19 (end): "... should be part of FBO's Good Hygiene Practices and HACCP system, if relevant." Alignment with wording of the General Principles of Food Hygiene and recognising that safety of water is not always part of the HACCP system.</p> <p>Paragraph 23: this paragraph also refers to chemical and physical agents which creates confusion on the scope. An option could be to refer only to microbiological hazards in this paragraph, but to add an additional paragraph worded as follows: "Biological water safety risk management should be developed, while considering at the same time the risk from potential chemical and physical hazards."</p>	<p><b>European Union</b></p>
<p>Para 19 However, in all situations, water sourcing, use and reuse guidance should be part of an FBO's <del>prerequisite hygiene and HACCP programmes.</del> <u>Food Hygiene System.</u></p> <p>Rationale:</p> <p>Term 'Food Hygiene System' is defined in GPFH and relates to both PRPs and HACCP system.</p>	<p><b>India</b></p>
<p>Para 23:</p> <p>Water safety risk management requires an identification of potential hazards (<b>microbiological</b>, chemical, ...</p> <p>It is recommended to replace microbiological with "biological"</p>	<p><b>Iran</b></p>
<p>Para 22 2nd line. Delete.</p> <p>Rationale: the 2nd line is outside of the scope of Codex. According to the MRM GL, the factors regarding practical feasibility should be considered in selection of MRM option.</p>	<p><b>Japan</b></p>
<p>Although the safest option in food production might be the use of potable water quality; this is often <b>not</b> a feasible, practical or responsible solution and other types of water may could be fit for some purposes provided that they do not compromise the safety of the final product for the consumer.</p> <p>Suggested wording changes to improve the clarity of the sentence</p>	<p><b>New Zealand</b></p>

<p>SECTION 2: FOOD SAFETY MANAGEMENT PROGRAMMES – Add “AND WATER” at the end of the header Rationale: the section is about managing the safety of water in food safety programs</p> <p><u>Add at the end of para 19: As part of the HACCP program, all water systems should be mapped in a process flow diagram and evaluated in the hazard analysis.</u></p> <p>Rationale: We recommend adding the proposed sentence to provide more emphasis on attention to water, as this is something that many people overlook in developing HACCP plans/food safety systems.</p> <p>Para 22: Risk-based water management plans should, in addition to addressing safe water sourcing, use or reuse also consider many factors when developing and implementing the <u>planation plan</u>. Additional factors to be considered could include <u>occupational safety for workers, water storage/distribution, including hygienic design, and the need for special expertise, investments, cost-benefit analyses and management of consumer perceptions.</u></p> <p>Editorial – “planation” means the leveling of a landscape by erosion. Many of the additional factors are out of scope for addressing the microbiological safety of water, as well as being outside the Codex mandate, as explained in prior comments.</p>	USA
<p>We suggest a change in the title of the section as shown below: "FOOD SAFETY MANAGEMENT SYSTEMS"</p>	Food Industry Asia
<p>Paragraph 13: "microbiological, chemical, physical agents " : This should be aligned with the scope of the document to avoid any confusion for the reader of the document</p> <p>Paragraph 19: In the first sentence, the word "quality" is felt to be superflous, given the definition provided in the document of "potable water".</p> <p>Paragraph 21: It is not clear what the word ‘system’ refers to in this paragraph, as it could refer to the Food Safety Management Programme or to the water supply system. This has a bearing on understanding the scope and provisions of this paragraph.</p>	FoodDrinkEurope
<p>Para 19, please replace "potable water" with "drinking water"</p>	ICBA
<p><b>SECTION 2: FOOD SAFETY MANAGEMENT PROGRAMMES <u>SYSTEMS</u></b></p> <p>Para 19: Although the safest option in food production might be the use of <u>potable drinking water</u> quality; ...</p>	ICGMA
<p>In title, replace programmes with systems. Water safety is not defined.</p> <p>See suggested rewording for use of terms consistent with other FAO/WHO/Codex texts for the full section below:</p> <p>19. Although the safest option in food production might be the use of drinking water quality; this is often not a feasible, practical or responsible solution and other types of water could be fit for some purposes provided that they do not compromise the safety of the final product for the consumer. However, in all situations, water sourcing, use and reuse guidance should be part of an FBO’s Food Hygiene System.</p> <p>20. Approaches to food safety management can be used to ensure that water used is fit for purpose. Food safety management is risk–and evidence-based, with microbiological reduction measures implemented within the framework of an overall water safety programme or a structured food hygiene system</p>	IDF/FIL

<p>21. Risk-based water safety management is a tool for control, monitoring and verification and therefore requires complete knowledge of the system, the diversity and level of the hazards that may exist, and the capacity of existing processes and infrastructure to address and control risks.</p> <p>22. Risk-based food management plans should, in addition to addressing safe water sourcing, collection, storage, treatment, handling, use or reuse also consider other factors when developing and implementing the plan. Additional factors to be considered could include occupational safety for workers, need for special expertise, investments, cost-benefit analyses, and management of consumer perceptions.</p> <p>23. Food safety risk management requires an identification of potential hazards (microbiological, chemical, physical agents with the potential to compromise damage to food safety) and their sources. Once potential hazards and their sources have been identified, the risk associated with each hazard or hazardous event should be compared so that priorities for risk management can be established and documented. A semi-quantitative matrix might be useful to identify hazards and prioritize control measures for risk management purposes.</p> <p>Suggested paragraphs to be added (from the section on principles as per our previous comments):</p> <p>24. Water should be obtained from appropriate sources and be of a quality that enables treatment, when necessary, by the means available to the food business, to render the water fit for its intended purpose</p> <p>25. Water re-use systems should be subjected to on-going, risk-based monitoring of adequate parameters and verification by testing. The frequency of monitoring and verification are dictated by such factors as the source of the water or its prior condition, the efficacy of any treatments, and the intended reuse of the water.</p> <p>26. Treatment or reconditioning of water intended for reuse should be based on knowledge of the types of contaminants the water may have acquired from its previous use, and any physicochemical parameters consequential to the treatment or reconditioning (e.g., particulates or organic material in the water), as well as the intended reuse of the water.</p>	
<b>SECTION 3: DECISION SUPPORT SYSTEMS</b>	
<p>Para 24 and 25: Suggest to edit as below</p> <p>24. <b>DSS should allow for the</b> diversity in food production, resulting in different types of risks and risk management steps necessary to ensure <b>the water’s</b> fitness for purpose in food production. Examples include: the food types involved; the food-water interactions; the specific water-borne food safety hazards; and their likelihood and magnitude of transmission to the consumer when present in different foods. Replace ‘DDS’ with ‘DSS’.</p> <p>25. In the annexes, risk-based DTs with direction to further guidance are provided. The implementation of these DTs requires evaluation and refinement in specific case studies before their acceptance.- <b>acceptance by whom?</b></p>	<b>Australia</b>
<p>Paragraph 25: We do not understand what is proposed for paragraph 25.</p>	<b>Colombia</b>
<p>The practical guidances and tools (including MCs) in the annexes are extracted from existing national/local guidances. They should be clearly mentioned as examples so that users of the draft document can apply them in accordance with the existing Codex documents, taking into account local conditions.</p> <p>Japan proposes to insert "example" in front of the term "DTs" in para 27.</p>	<b>Japan</b>
<p>Water for other agricultural uses/Paragraph 24:</p> <p>READS: Clean water should be used for other agricultural purposes; SHOULD READ: Clean water should be used for other agricultural purposes [Translator’s Note: This is an editorial change in the Spanish version only]</p>	<b>Peru</b>
<p>Paragraph 24 – Change DDS to DSS in “Decision support systems (DDS) tools, such as decision trees (DTs)..”</p>	<b>USA</b>

<p>Rationale: editorial</p> <p>Paragraph 26 – In the examples, add “intended use”</p> <p>Examples include: the food types involved AND THEIR INTENDED USE; the food-water interactions; the specific water-borne food safety hazards; and their likelihood and magnitude of transmission to the consumer when present in different foods.</p> <p>Rationale: intended use also plays a significant role in ensuring the fitness for purpose of water in food production</p>	
<p>Para 24 DDS should be replaced by DSS</p>	<p><b>FoodDrinkEurope</b></p>
<p>Para 24, please replace "potable water" with "drinking water"</p>	<p><b>ICBA</b></p>
<p>Para 24:</p> <p>Decision support systems (DDS) tools, such as decision trees (DTs) or matrices, are considered to be useful risk management tools to assist stakeholders in making decisions on the water’s fitness for purpose and the required quality (potable/drinking water or other suitable quality) for use or reuse at a given step in the supply chain.</p>	<p><b>ICGMA</b></p>
<p>Paragraph 24: correct acronym DDS to DSD. and 'safety and' before quality.</p> <p>Paragraph 27: Suggest adding '(significance)' after transmission in last line for clarity.</p>	<p><b>IDF/FIL</b></p>
<p>The abbreviation in paragraph 24 (DDS) is incorrect and should be changed to (DSS)</p>	<p><b>IFT</b></p>
<p><b>ANNEX I Fresh Produce</b></p>	
<p><b>Specific questions]:</b></p> <p><b>Q1: Determine whether to keep in paragraphs 5 to 36 adopted to the scope of this guideline, or to replace by a cross reference to CXC 53 – 2003</b></p> <p><b>Q2: Evaluate the remaining examples and determine if the tools (DT) are appropriate for the development of the document</b></p> <p><b>Q3: Indicate if it is considered appropriate to ask FAO/WHO if validation of the examples can be considered, as well as more concrete recommendations on thresholds and sampling frequencies</b></p>	
<p>o Argentina believes paragraphs 5 to 36 are adequate and should remain within the scope of these guidelines. These paragraphs provide additional information and discuss guidelines for water use and reuse in food production.</p> <p>Rationale: The Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003) provides a general framework for recommendations, and includes other sections not related to water use and reuse in food production. The Annex on ready-to-eat, fresh, pre-cut fruits and vegetables, on the other hand, contains more specific guidelines on water use for each production step. We believe providing information more specific to each production area will help producers interpret the recommendations more consistently, thus achieving more even results.</p> <p>o We also believe that it would be relevant to inquire with FAO/WHO about the recommendations contained in these draft guidelines and about validating the examples included in the Annex on ready-to-eat, fresh, pre-cut fruits and vegetables. We could also request more specific recommendations on thresholds and sampling frequencies.</p> <p>Rationale: Codex texts must be based on scientific evidence. Therefore, the tools used as examples must have the scientific backing which validation can provide. We also need consistent standards to define the thresholds and sampling frequencies contained in the document (low, medium, high) explicitly.</p>	<p><b>Argentina</b></p>

Paragraphs 5 to 36: Replace with a cross-reference to CXC 53-2003.	<b>Australia</b>
<p>Brazil prefers to insert a reference to paragraphs of CXC 53 (5-36), as it avoids the need to change two documents on the same subject and the risk of updating just one of them.</p> <p>Examples are necessary for the development of the document at this stage. However, further the text should reflect that the examples are not prescriptive/exhaustive, or the examples should be included in an informative document.</p>	<b>Brazil</b>
<p><b>Q1</b></p> <p>In order to determine the best option we need to discuss further and consider the implications for CXC 53-2003, the consistency or duplication between the two documents and how these two documents should relate to one another.</p> <p>A few points for consideration:</p> <p>CXC 53-2003 is more broad and covers more aspects related to the use of water (directly or indirectly) for the production of Fresh Fruits and Vegetables (e.g., location of production site, use of agricultural chemicals, training, drainage and waste disposal etc.).</p> <p>Although keeping paragraph 5-36 in the guidelines on safe use of water could be useful for the reader because the information would in the same place as the decision tools instead of having to refer to CXC 53-2003, we would have duplication of information in two different Codex documents.</p> <p>Furthermore, if the text is carried over from CXC 53-2003 into this current draft document, then it is more than likely to be amended/supplemented during the development of the document. In this case, it may no longer be fully consistent with CXC 53-2003, particularly if CXC 53-2003 remains as is.</p> <p>Therefore, it may be best to replace paragraphs 5 to 36 with a cross-reference to CXC 53-2003 and supplement the sections on pre-harvest and post-harvest use of water within the Guidelines for the safe use of water with the information that is missing. This way we can focus on developing the document to meet the main objectives of this document instead of repeating information already provided in CXC 53-2003. This approach would better align with the main objectives of the guidelines which are to provide guidance on the application of a risk-based approach to safe water sourcing and its use and reuse as well as develop practical tools to help evaluate risks and define water that is fit for purpose.</p> <p>After the guidelines on safe use of water are published, some of the concept in CXC 53-2003 related to water (e.g., the term clean water), may no longer be relevant and will need to be updated in the future.</p> <p><b>Q2</b></p> <p>The examples and DTs presented are practical tools that could support consistent decision-making based on risk. However, the DT in paragraph 62 refers to both microbiological and chemical hazards. Are chemical hazards out of scope for this document?</p> <p><b>Q3</b></p> <p>It may not be necessary to ask JEMRA to validate the examples and decision trees. There are many examples that may be implemented and we recommend that the validation of specific processes is left to the governing body of each member country or industry.</p> <p>Examples of thresholds and sampling frequencies are useful and could be included.</p>	<b>Canada</b>
<p>We suggest keeping these paragraphs and referencing CXC 53-2003, bearing in mind that the Code of Hygienic Practice for Fresh Fruits and Vegetables contains relevant information on water use at various production stages. For this reason, it is considered a useful addition to this document.</p> <p>We are in favor of inquiring with FAO/WHO about the validation of examples and the recommendations regarding sampling frequencies in particular.</p>	<b>Colombia</b>

<p>Costa Rica believes it is appropriate to ask FAO/WHO about the validation of the examples, as well as more concrete recommendations on thresholds and sampling frequencies.</p> <p>Costa Rica is in favor of including these examples in the document as it will facilitate the implementation of the guidelines.</p> <p>Costa Rica believes keeping paragraphs 5 through 36 is appropriate.</p> <p>Rationale: Some of these issues are not discussed in CXC 53-2003.</p>	<b>Costa Rica</b>
<p>Egypt recommends to keep in paragraphs 5 to 36 adapted to the scope of this guidelines</p>	<b>Egypt</b>
<p>- Despite a certain agree of overlap with CXC 53-2003, the EUMS prefer to keep the paragraphs 5 to 36 since it allows to develop a comprehensive guidance document. In addition, this Annex focusses and goes more into detail in the management of biological hazards. In addition, the rounds of consultation resulted in a lot of suggestions to improve the wordings of these paragraphs.</p> <p>- The EUMS find the provided examples useful and the decision tools appropriate.</p> <p>- The EUMS can support a request to FAO/WHO to validate the examples and if more concrete recommendations on thresholds and sampling frequencies can be considered. Alternatively to a request for recommendations on thresholds and sampling frequencies, a number of examples (in addition to one provided), could be provided based on input from members.</p> <p>- At several occasions: replace “fresh fruits and vegetables” by “fresh produce” for consistency purposes.</p>	<b>European Union</b>
<p>Kenya supports retention of para 5-36 rather than cross-referencing to CXC 53-2003, as it provides clarity and flow to the document and its structure, making it user friendly and easy to implement.</p> <p>Kenya finds the tools such as tools (DT) appropriate for the development of the document as they are considered to be useful risk management tools to assist stakeholders in making decisions on the water’s fitness for purpose and the required quality) for use or reuse at a given step in the supply chain, hence their validation can be considered and that and that further recommendations from FAO/WHO on thresholds and sampling can be sought</p>	<b>Kenya</b>
<p>Suggests to keep in paragraphs 5 to 36 adapted to the scope of this guidelines.</p> <p>Rationale:</p> <p>The document remains self-contained and comprehensive.</p> <p>Remaining examples and the tools (DT) are appropriate for the development of the document.</p> <p>Rationale:</p> <p>Examples and Decision Tree are found to be appropriate.</p>	<b>India</b>
<p><b>Q1</b></p> <p>Cross-reference to CXC 53-2003 is preferred, since it will make this document shorter...</p> <p><b>Q2</b> They are, in general, appropriate</p> <p><b>Q3</b>.....</p> <p>It would be more appropriate to ask FAO/WHO...</p>	<b>Iran</b>

<p>Japan supports to replace par 5 to 36 by a cross-reference to CXC 53-2003 since this document is complementary to the existing Codex CoPs and intended to be used in conjunction with them.</p> <p>In case para 5 to 36 are not replaced by a cross-reference to the CXC53, Japan proposes to amend para 9 and 20 as follows, taking into account the consistency with CXC53 and the feasibility for small productions :</p> <ul style="list-style-type: none"> <li>• The national/local guidances, which are the basis of examples, would be revised in the future. Japan proposes to replace the DTs/tables by references to (and introductions of) each national/local guidances, so that CCFH will be able to deal with revisions of each national/local guidances easily.</li> </ul> <p>Japan believes that examples of MC should not be validated by JEMRA since they are derived from national/regional guidelines.</p>	<b>Japan</b>
<p>With regard to whether to keep in paragraphs 5 to 36 adapted to the scope of this guidelines, or to replace by a cross-reference to CXC 53-2003, Malaysia agrees to keep in paragraphs 5 to 36 adapted to the scope of this guidelines as it is more feasible and for easy reference.</p> <p>Malaysia also agrees with the suggestion to ask FAO/WHO for the request on validation of the examples as well as more concrete recommendations on thresholds and sampling frequencies.</p>	<b>Malaysia</b>
<p>Keep paragraphs 5 to 36</p> <p>Justification:</p> <p>It is advisable to keep the texts to have guidelines whose specifications fully cover the topics.</p>	<b>Mexico</b>
<p>To determine whether to keep in paragraphs 5 to 36 adapted to the scope of this guidelines or to replace by a cross-reference to CXC 53-2003. New Zealand suggests providing a cross-reference to CXC 53-2003 unless there are situations where the proposed draft guidelines provide additional information not covered in the Code of Hygienic Practice for Fresh Fruits and Vegetables.</p> <p>No comments are provided on the additional areas of requested input at this time.</p>	<b>New Zealand</b>
<p>Keep paragraphs 5 through 36 adapted to the scope of these guidelines.</p> <p>The tools (decision trees) are appropriate for the development of the document.</p> <p>We are in favor of asking FAO/WHO if validation of the examples can be considered, as well as more concrete recommendations on thresholds and sampling frequencies.</p>	<b>Peru</b>
<p>Regarding the Fresh produce annex, Saudi Arabia suggests that paragraphs 5 to 36 “pre/post-harvest use of water” are replaced by a cross-reference to CXC 53-2003 as the Pre/Post-harvest use of water have been mentioned already in another codex standard (CXC 53-2003) and not within an outside reference.</p> <p>Saudi Arabia agrees with Decision Tree tool and believes it is appropriate for the development of the document.</p> <p>Saudi Arabia considers asking the FAO/WHO for validations and recommendations appropriate.</p>	<b>Saudi Arabia</b>
<p>o To determine whether to keep in paragraphs 5 to 36 adapted to the scope of this guidelines, or to replace by a cross-reference to CXC 53-2003.</p> <p>We prefer making references to the CXC 53-2003 instead of repeating text. Clearer explanation on risk assessment, water fit for purpose, potable water and clean water should also be given in this Annex.</p> <p>o To indicate if it is considered appropriate to ask FAO/WHO if validation of the examples can be considered, as well as more concrete recommendations on thresholds and sampling frequencies.</p>	<b>Thailand</b>

<p>The examples as well as recommendations on thresholds and sampling frequencies should be reviewed/validated by the FAO/WHO experts so that they become easy to read, more practical, and simpler.</p>	
<p>In relation to the following items for our consideration:  1- Uruguay understands paragraphs 5 through 36 could be replaced with a reference to CXC 53-2003  2- Uruguay supports the proposed decision tree. However, we do not believe the examples it includes are adequate  3- Uruguay is in favor of consulting FAO/WHO on these issues</p>	<p><b>Uruguay</b></p>
<p><b>Q1</b></p> <p>The United States supports retaining these paragraphs in this document rather than cross-referencing CXC 53-2003 as long as they contain information relevant to water and in determining whether it is “fit for purpose.”</p> <p><b>Q2</b></p> <p>The United States finds the examples helpful in understanding factors to consider in determining whether water is fit for purpose. We believe they should be revised to ensure consistency and moved to an appendix to the annex.</p> <p><b>Q3</b></p> <p>The United States recommends that if the examples are to be retained FAO/WHO should be asked to evaluate them and ensure consistency of the advice, in particular with respect to the microbial targets and the sampling frequencies. We also recommend that Table 1 be evaluated by FAO/WHO.</p> <p><b>General Comments:</b></p> <p>The document defines terms such as clean water and potable water, but it is not always clear what quality of water should be applied. For example, paragraph 18 says that “Water for irrigation should be of suitable quality for its intended use.” Should this state that water should be clean water or higher quality? Paragraph 21 says that “Water used for the application of water-soluble fertilizers, pesticides and 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 contain biological contaminants at levels that may adversely affect the safety of fresh fruits and vegetables...,” which sounds like “clean water” in both cases. Should that term be included? Paragraph 24 says “Clean water should be used for other agricultural purposes, such as dust abatement and the maintenance of roads, yards and parking lots, in areas where fresh fruits and vegetables are grown;” however, it is not clear what the “other agricultural purposes” are and what quality of water would apply there – potable?</p> <p>In several places in this annex the term “sanitizer” is used for chemicals added to wash water; this should be changed to “biocide” as agreed for the Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003).</p>	<p><b>USA</b></p>
<p><b>Q1</b></p> <p>It is relevant to keep paragraphs 5 to 36</p> <p><b>Q2 &amp; 3</b></p> <p>It is appropriate to ask FAO/WHO about validation of the Fresh Product examples</p> <p>The examples and DT are appropriate for Fresh Produce.</p>	<p><b>ICUMSA</b></p>
<p>IFT believes there is value in keeping paragraphs 5-36 that are adapted to the scope of the guidelines and suggest that additionally, a cross-reference to CXC 53-2003 be incorporated also.</p>	<p><b>IFT</b></p>

<b>INTRODUCTION</b>	
<p>We propose the following wording:            Paragraph 1. Water can be a source of contamination of biological pathogens associated with the consumption of fresh produce. These pathogens include bacteria such as, but are not limited to Salmonella spp., Shigella spp, Campylobacter spp., Listeria monocytogenes and pathogenic strains of Escherichia coli, but also viruses such as hepatitis A and norovirus, and parasites such as Cyclospora spp., Giardia spp.and Cryptosporidium spp as well as chemical hazards such as environmental pollutants or heavy metals.</p>	<b>Colombia</b>
<p>Paragraph 2, first sentence – revise as follows:            Water is used at all steps in the production chain of fresh produce, from irrigation and other pre-harvest practices, such as fertilization and pesticide application, DURING HARVEST, SUCH AS WASHING IN THE FIELD WHILE HARVESTING, and post-harvest practices, such as rinsing and cooling, until final washing steps by the consumers.            Rationale: Water is used during harvest and can be a source of contamination.</p>	<b>USA</b>
<b>PURPOSE AND SCOPE</b>	
<p>Paragraph 3: Replace “Good Hygiene Practices” by “Good Hygiene Practices (GHP)” since this acronym is further used in the draft.</p>	<b>European Union</b>
<p>The practical guidances and tools (including MCs) in the annexes are extracted from existing national/local guidances. They should be clearly mentioned as examples so that users of the draft document can apply them in accordance with the existing Codex documents, taking into account local conditions.            Japan proposes to insert "control measures including example" in front of the term "biological criteria" in para 3, Annex1.</p>	<b>Japan</b>
<p>The annex recommends... ..for determining fit-for-purpose <b>microbiological</b> criteria (i.e. criteria for bacteria, viruses, parasites),...            Clarify that the criteria are microbiological criteria which are defined in the Codex text CXG 21-1997 which is wider than just bacteria, viruses and parasites.</p>	<b>New Zealand</b>
<b>USE</b>	
<p>Paragraph 4            Paragraph may be modified as follows:            This Annex is complementary to and should be used in conjunction with Appendix I, the General Principles of Food Hygiene (CXC 1-1969), the Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003), Principles and Guidelines for the Conduct of Microbiological Risk Management (MRM) (CXG 3-2007) and Principles and Guidelines for the Conduct of Microbiological Risk Assessment (CXG 30-1999).            Rationale:            The annex shall be referred also in conjunction with the main document (Appendix I)</p>	<b>India</b>
<b>PRE-HARVEST USE OF WATER</b>	
<p>We propose the following wording:            Paragraph 11 Growers must use the water which has undergone microbiological testing, according to the risk associated with the production.            We suggest the following:</p>	<b>Colombia</b>

<p>Paragraph 23 The following should be taken into consideration:</p> <ul style="list-style-type: none"> <li>• Water used in hydroponic culture should be changed frequently or, if recycled, treated to minimize biological and chemical contamination;</li> </ul>	
<p>Paragraph 19, introductory sentence: replace “good agriculture practices” by “Good Agriculture Practices (GAP)” since this acronym is further used in the draft.</p>	<b>European Union</b>
<p>Paragraph 10 and 13</p> <p>The word ‘Growers’ may be modified with ‘Growers or associated operators in the food chain’.</p> <p>Rationale:</p> <p>Small growers may not understand the importance of and be able to afford microbiological analysis of water. However, another appropriate operator in the food chain may also be able to afford the same, and would be in a better position to understand its implications and get the corrective actions taken by the growers. Therefore, it would be appropriate if the Annex referred to Growers or associated operators in the food chain’ rather than growers.</p>	<b>India</b>
<p>In section "Water for irrigation (including greenhouses) and harvesting" para 19 line 18 &amp; 21, it is recommended to replace microbiological with "biological"</p> <p>in section water source recommended to add "NOTE" at the end of para 9 as follow:</p> <p>"• NOTE: In some cases the waste water form an industrial factory near a farm may be actually used for irrigation. Such waste water may contain unwanted/dangerous materials, e. g, heavy metals, which will be absorbed by the plants and pose risks for the consumers who eat them. Appropriate action should be taken to prevent or, at least, minimize such risk. Of course, the best thing is to prevent totally irrigation of fruits and vegetables by industrial wastewater."</p>	<b>Iran</b>
<p>Japan proposes to delete para 8 7th bullet point "e.g. weekly"</p> <p>Rational : "e.g. weekly" is not necessary since the interval may be depends on the farming schedule and weather in each area. (this comment is for just in case that this para is not replaced by a cross-reference to the CXC53.)</p> <p>Para 9 : Reclaimed or wastewater: before using reclaimed or wastewater for crop irrigation, an expert should be consulted to assess the relative risk...</p> <p>Para 20 : Those responsible for the water-distribution system, where appropriate, should regularly carry out...</p>	<b>Japan</b>
<p>Paragraph 24</p> <p>Clean water should be used for other agricultural purposes [Translator’s Note: This is an editorial change in the Spanish version only]</p> <p>New paragraph after 26 and before the bullets</p> <p>Water for indoor storage and distribution facilities should</p> <p>Justification:</p> <p>Give introduction to the bullets.</p> <p>Para 26.</p> <p>Non-potable water systems should be identified (for example with labels or color codes) and should not connect with ...</p>	<b>Mexico</b>

<p>Justification: Provide examples to FBOs that facilitate the application of the guidelines, in order to ensure better control of the facilities that allow safe operations</p>	
<p>7 Growers should identify the sources of water <b>used during primary production</b> on the farm...</p> <p>Fresh produce may not be solely grown on a farm 14, bullet point 1</p> <p>Which tests need to be conducted (<b>e.g. for which pathogens and/or sanitary indicators</b>);</p> <p>Indicators could refer to indicator organisms or indicators relevant to the sanitary conditions 17 Overhead irrigation presents the highest greatest risk of contamination <b>where</b> because it wets the edible portion of the crop.</p> <p>Provides further clarification – the edible portion may not always be wet during irrigation if it is grown in the soil 9, bullet point 7</p> <p>Overhead irrigation presents the highest risk of contamination <b>where</b> because it directly wets the edible portion of the crop.</p> <p>Provides further clarification – the edible portion may not always be wet during irrigation if it is grown in the soil</p>	<p><b>New Zealand</b></p>
<p>Paragraph 7, first sentence – Revise as follows:</p> <p>Growers should identify the sources of water used on the farm (e.g. municipality, groundwater including well water, SURFACE WATER (E.G., open canal, reservoir, river, lake, farm pond), reused irrigation water, roof water, reclaimed wastewater or discharge water from aquaculture).</p> <p>Rationale: The term “surface water” is used elsewhere in the Fresh Produce Annex for these types of waters (e.g., bullet 2 of paragraph 7, paragraph 9).</p> <p>---</p> <p>Paragraph 7, 3rd bullet: Revise as follows:</p> <p>“Rainwater (HYGIENICALLY COLLECTED)”</p> <p>Rationale: Rainwater is stated as “presenting the lowest risk of contamination (provided these sources, and storage and distribution facilities are properly constructed, maintained, monitored and capped, as appropriate).” Depending on how the rainwater is collected and what it could come in contact with (e.g., roofs with birds and their droppings), rainwater could represent a higher risk compared to the other two sources listed (well waters). The addition of "hygienically collected" reinforces the parenthetical information. In paragraph 19, “poorly stored rainwater” is stated as being a high-risk source. The document should be clear in qualifying rainwater, e.g., this bullet and Table 1 should refer to hygienically collected rainwater, when addressing the risk.</p> <p>---</p> <p>Paragraph 8, 3rd bullet: Revise as follows:</p> <p>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, to minimize contamination.</p> <p>Rationale: Editorial; “i.e.” is used to clarify the meaning of something said previously, but here we have two different points (“downhill” and “ten meters away”). Therefore it is best to delete it and replace with "and."</p>	<p><b>USA</b></p>

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Paragraph 8, last bullet - Revise as follows:

Regularly check irrigation SYSTEMS (e.g., weekly), for damage or leaks and flush lines to remove accumulated organic debris/biofilms.

Rationale: Editorial

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Paragraph 9, first bullet - Revise as follows and deleting the second sentence completely:

Reclaimed or wastewater: before using reclaimed or wastewater for crop irrigation, a risk EVALUATION by an expert should be carried out to assess the relative risk and determine the suitability of the water source.

Rationale: "evaluation" is more appropriate than "risk analysis," which is defined in Codex as "A process consisting of three components: risk assessment, risk management and risk communication." With respect to the WHO reference, we have concerns about the broad inclusion of measures through incorporation of a reference that has not been fully reviewed and agreed to by Codex members and which may go beyond the scope of these guidelines. We recommend that the applicable provisions from that reference be incorporated into this document.

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Paragraph 9, second bullet- Revise as follows:

Delete "sand filtration" from the first sentence.

Rationale: Sand filtration is not a biological contamination mitigation option. Sand filtration is used only to remove large particles and organic matter from water for functional purposes (e.g., to prevent clogging of drip tape). It does not remove parasites, bacteria, or other microorganisms from the irrigation water (other than those attached to large particles). Only technologies such as micro- or ultra-filtration or reverse osmosis (RO) are capable of filtering microorganisms. These are not likely to be practical for most growers. The FAO/WHO 2019 report on the Safety and Quality of Water used in Food Production and Processing refers to "membrane filtration" but does not specify pore size.

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Paragraph 10 - Revise as follows:

Growers should assess the biological quality of water, as prescribed by the relevant authority, and its suitability for the intended use, and identify corrective actions FOR UNACCEPTABLE RESULTS for unacceptable results to prevent or minimize contamination (e.g. from livestock, wildlife, sewage treatment, human habitation, manure and composting operations, agricultural chemicals, or intermittent or temporary environmental contamination, such as heavy rain or flooding).

Rationale: Clarification

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Paragraph 11 – Revise the first sentence as follows:

WHEN WATER IS TESTED FOR BIOLOGICAL CONTAMINANTS, THE RESULTS SHOULD BE USED BY GROWERS TO INFORM USE OF THE WATER, according to the risk associated with the production.

Rationale: Clarification

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Paragraph 12 – Recommend deleting the second sentence or adding context for it if prefer to retain.

"The high testing frequency may be considered until consecutive results are within the acceptable range."

Rationale: The "high frequency testing" is to establish a baseline; it is not clear how this relates to "consecutive results... within the acceptable range." We think the intent may be to suggest that water testing may be higher (more frequent) when establishing the baseline, but can be lowered once there is a better understanding of the patterns (e.g. seasonality) for microorganisms in the water source. Then, if there are results outside of the range, testing frequency can be increased again at that point.

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Paragraph 14 bullet – Add a new second bullet and bump the rest of the bullets down:

WHERE TO SAMPLE AND HOW MUCH TO SAMPLE (E.G. THE SURFACE OF THE WATER OR DEEPER? CLOSE TO THE EDGE OF A SURFACE WATER SOURCE OR FARTHER BACK FROM THE BANK?)

Rationale: The sampling point can also be an important aspect on which to consult experts.

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Paragraph 15 –

The United States recommends splitting the bullet list between steps to prevent contamination of water vs. steps to mitigate already-contaminated water from impacting the crop.

Rationale: The bullets are supposed to be "Possible corrective actions to prevent or minimize contamination of water for primary production," but some focus on preventing contamination of the crop, not the water (e.g., changing the irrigation system to avoid direct contact with the crop).

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We recommend deletion of water filtration (Current bullet #4) from the list of mitigation steps, unless referring to filtration processes are designed to remove microorganisms.

Rationale: Most filtration is largely ineffective in removing microbial hazards unless the microorganisms are attached to particles that are captured by the filters. If filtration is retained in the document, discussion of filtration that removes microorganisms should be included.

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Change the next to the last bullet, replacing "irrigation systems" with "water application method" as follows:

"Changing the WATER APPLICATION METHOD to avoid direct contact of the water with the edible portion of the crop;"

Rationale: Broadens the bullet to consider any direct crop contact use, e.g., pesticide and fertilizer application water, frost protection etc.

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Paragraph 18 – Delete the 3rd bullet:

"Irrigation of fruits and vegetables that will receive little or no post-harvest wash treatments prior to packing, such as field-packed produce."

Rationale: This bullet implies that a washing step removes pathogens and should be a consideration as to the quality of water used in preharvest, when in reality the washing step does not significantly remove pathogens on produce and can instead promote cross-contamination if using an immersion tank without properly controlled antimicrobials.

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Paragraph 19, second bullet-- Revise as follows:

Record the crop, date and time of irrigation, water source and any pesticides AND FERTILIZERS APPLIED USING WATER.

Rationale: Pesticides per se are out of scope; however, the water used in their application is relevant. Add fertilizers, since the water used in applying water-soluble fertilizers is also relevant here.

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Paragraph 19, 6th bullet—

Add parentheses in first sentence after "type of crop":

The type of crop (i.e. ready-to-eat or requires cooking)...

Rationale: Editorial, for ease of reading

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Paragraph 19, 7th bullet:

Delete "low volume sprays" in the second sentence.

Consider whether to add "IF OVERHEAD IRRIGATION CANNOT BE AVOIDED, USE OF LOW VOLUME SPRAYS CAN REDUCE RISK.

Rationale: Including a type of overhead irrigation following a statement that overhead irrigation presents the highest risk of contamination is confusing.

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Paragraph 19, 8th bullet: Revise as follows, deleting the second sentence and other parts and replacing some text as show in all capital letters:

"Water spraying, i.e. misting, immediately prior to harvest presents an increased microbiological risk. It is recommended that water spraying immediately prior to harvest BE avoided BECAUSE OF THE increased microbiological risk."

Rationale: The second sentence does not appear specific to "misting;" consider moving it to the final bullet. Other revisions are editorial to avoid duplication.

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Paragraph 19, 8th bullet: Revise as follows, adding two new sentences and deleting the original final sentence:

Minimize soil splashing from irrigation by choosing a system that delivers small water droplets. For low growing crops it may not be possible to minimize water contact in this way. THE RISK OF CONTAMINATION INCREASES IF LARGE IRRIGATION DROPLETS ARE USED OR HEAVY RAIN OCCURS. It should also be noted that if the soil has been contaminated by irrigation water, soil splash can transfer contamination to crops. IF THE SOIL IS HEAVY AND NON-FREE DRAINING, CONTAMINATED WATER CAN ACCUMULATE ON THE SOIL SURFACE, INCREASING TEH RISK OF CROP CONTAMINATION.

Rationale: Editorial for better flow and to incorporate the sentence deleted from the previous bullet.

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Paragraph 22, last sentence-- Add "growth" after "survival" as follows:

It is especially critical in hydroponic operations to maintain the water quality to reduce the risk of contamination and survival/GROWTH of pathogens.

Rationale: For consistency with the first sentence.	
<p>For paragraph 29, IFT believes the wording should present more of the scientific basis for the statement "may damage the structure". We would suggest rewording to "has been shown to damage the structure" followed by a reference to the technical scientific basis.</p> <p>Similar to Paragraph 29, IFT recommends for Paragraph 36 again to cite the scientific basis (not just the rationale) for the temperature differential forcing water in and the basis for the 10 C point scientifically</p> <p>On Paragraph 45, we likewise agree with the statement, however, a scientific basis reference for the last bullet point on excess water removal would be useful.</p>	<b>IFT</b>
<b>POST-HARVEST USE OF WATER</b>	
<p>o In relation to the paragraph on reused water (paragraph 37), in Figure 1, we should clarify that the pre-washing, washing, and rinsing steps at the beginning are carried out using potable water.</p> <p>o The figure uses the term "sanitizing agent"; we suggest using "antimicrobial agent" or defining "sanitizing agent."</p>	<b>Argentina</b>
<p>Para 37 <del>In Water reuse in the fresh produce industry, water re-use is also possible.</del> Figure 1 shows how water from the rinsing step can be used for the washing tank and how the water in the washing tank can be used as a pre-washing step.</p> <p>Para 38. The water used in the final rinsing step should be potable water. After rinsing, this water, should be treated with a water sanitizing agent to have a residual concentration of <del>the disinfectant sanitizer</del> able to minimize cross-contamination in the washing tank. By doing this<del>at</del>, the water in the washing tank will have an "antimicrobial" activity to inactivate any potential pathogens that might be present in the washing tank coming from the produce.</p> <p>Para 39. The water from the washing tank can be also be used for a pre-washing step. The pre-washing step should remove most of the organic matter and reduce the microbial load that comes with the produce. <b>This step will help maintain a residual concentration of sanitizers in the wash water tank, as sanitizers that are inactivated by organic matter.</b></p> <p>Para 41. <b>Wastewater generated by the food industry can be re-cycled using reclamation treatments similar to those implemented in wastewater treatment plants, to produce water of a quality similar to potable water. This is illustrated in Figure 1.</b></p> <p>Para 44: Replace 'see professional advice' with '<b>seek professional advice</b>'</p>	<b>Australia</b>
<p>We suggest the following:</p> <p>45. Add the following bullet point:</p> <ul style="list-style-type: none"> <li>A recording method to control fresh produce washing and rinsing must be in place.</li> </ul> <p>46. Develop documented procedures for cleaning and sanitizing of surfaces having come into contact with the food used in washing and rinsing of fresh produce which includes:</p> <p>We suggest replacing "equipment" with "surfaces having come into contact with the food used."</p>	<b>Colombia</b>
<p>Para 42 and 43 can be replaced by a cross-reference to CXC53 since they are same as CXC53 5.2.2.1 7th and 8th bullet point.</p> <p>Japan proposes to insert "example" in the title of Fig 1, para37, to clarify Fig 1 is just an example, not as a general recommendation.</p>	<b>Japan</b>
Paragraph 27	<b>Mexico</b>

<p>Water use during postharvest practices includes any water that contacts fresh produce after harvest including water used for rinsing, washing, cooling, waxing, icing, or fluming, among others.</p> <p>Justification:</p> <p>In order not to be limiting in the post-harvest activities.</p> <p>Para 35</p> <p>Ice that (...) protect it from contamination. Records should be kept of the safety of ice, as well as of supplier analysis and control.</p> <p>Justification:</p> <p>The purpose is to provide guidance on keeping track of the safety conditions of the ice used in the process.</p> <p>Parr 35 to 73</p> <p>We consider that the decision tree tools are adequate, and we also agree to ask the FAO / WHO the validation approach to the examples and recommendations of thresholds and sampling frequencies</p> <p>Justification:</p> <p>We consider that the decision tree tools are adequate, and we also agree to ask the FAO / WHO the validation approach to the examples and recommendations of thresholds and sampling frequencies.</p>	
<p>Para 36 Immersion of warm, whole or fresh-cut produce in cool water may induce water into the internal parts of the fresh produce and some fresh produce with high water contents, e.g. apples, celery, <b>melons</b> and tomatoes, are more susceptible...</p> <p>Suggest adding melons as another known type of fresh produce where internalisation is a problem.</p> <p>Para 41 In order to have a more sustainable industry, which avoids the use of excessive water, the wastewater generated <b>the water used</b> by industry can be recycled using reclamation treatments similar to those that are implemented in wastewater treatment plants to have water of a quality similar to that of potable water. This is illustrated in Figure 1.</p> <p>In some countries, wastewater is the alternative name given to sewage. The situation described here would seem to be different and refer to water that is used during the processing of fresh produce. Therefore, an alternative term is suggested in the paragraph in place of 'wastewater'</p> <p>Figure 1</p> <p><b>Wastewater Reused water</b></p> <p>In some countries, wastewater is the alternative name given to sewage. The situation described here would seem to be different and refer to water that is used during the processing of fresh produce. Therefore, an alternative term is suggested in the paragraph in place of 'wastewater'</p> <p>Para 45, bullet point 4 Where possible, on the use of a de-watering step to remove excess water <b>from the fresh produce</b> as dry produce is less likely to become re-contaminated; in such cases, water should be removed gently to prevent damage to produce.</p>	<b>New Zealand</b>
<p><b><u>HARVEST AND POST-HARVEST USE OF WATER</u></b></p> <p>The United States recommends changing the title and the first sentence in paragraph 27 as follows:</p> <p>HARVEST AND POST-HARVEST USE OF WATER</p>	<b>USA</b>

Water use during HARVESTING AND postharvest practices includes any water that contacts fresh produce after harvest, including water used for rinsing, washing, cooling, waxing, icing, or fluming.

Rationale: to include water used during harvesting. The document appears to skip the harvest step. Harvesting water uses can include equipment cleaning, handwashing, and, most importantly, crop washing.

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Paragraph 27, last sentence: Clarify where “microbial die-off” occurs - the water, the produce, both?

The microbiological quality of postharvest water is critical because microbial die-off is minimal.

Rationale: Sentence is not clear.

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Paragraph 33: Revise as follows:

The use of biocides 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 BIOCIDES levels monitored, controlled and recorded to ensure the maintenance of effective concentrations. 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. ANY FINAL RINSING STEP SHOULD BE ACCOMPLISHED BY OVERHEAD SPRAY, NOT BY AN IMMERSION TANK.

Rationale: The level of biocides used should be validated for efficacy in minimizing cross-contamination. Additionally, if the final rinse without biocides is done with an immersion tank, the original purpose of using biocides in the previous step (i.e. to prevent cross-contamination) has been made moot.

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Paragraph 38, first sentence: Change “use” to “used”

The water USED in the final rinsing step should be potable water.

Rationale: Editorial

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Paragraph 44: Change “see” to “seek”

If treating water for use in washing and rinsing, it is recommended to SEEK professional advice from experts...

Rationale: Editorial

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Paragraph 45, first bullet: Rearrange the sentence as follows:

- on the use of vigorous washing IF THE FRESH PRODUCE IS NOT SUBJECT TO BRUISING to increase the chances of removing contamination.

Rationale: Editorial, for clarity

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Paragraph 45, last bullet: Revise as follows:

<ul style="list-style-type: none"> <li>• on the use of a de-watering step, WHERE POSSIBLE, to remove excess water, as dry produce is less likely to become re-contaminated; in such case, water should be removed gently to prevent damage to produce.</li> </ul> <p>Rationale: Editorial to make all bullets parallel</p> <p>---</p> <p>Paragraph 46, last bullet: Revise as follows:</p> <ul style="list-style-type: none"> <li>• ancillary equipment such as knives AND blades, and boots and protective clothing, should be cleaned and disinfected at the end of each day.</li> </ul> <p>Rationale: Editorial to clarify that boots and protective clothing are not ancillary equipment</p>	
<p>Paragraph 46: Cleaning interval should be addressed here as well. Propose to add "maximum run time, between cleaning and sanitation cycles, should be determined for each process line" or something similar.</p> <p>In table 1, under "wastewater": There is no definition of wastewater in the section related to "definitions". So we propose to add this there.</p>	<b>FoodDrinkEurope</b>
<b>RISK ASSESSMENT TO DETERMINE FIT FOR PURPOSE</b>	
<p>Paragraph 49            We support the risk level matrix outlined in paragraph 49, Table 1.</p>	<b>Argentina</b>
<p>Paragraph 47            The development of a risk-based strategy for water sourcing, use and reuse should be based on the hazard assessment that should take into account:</p> <p>We believe it would be relevant to review the contents of ISO 22000, paragraph 8.5.2.3 on hazard assessments for this paragraph.</p> <p>"8.5.2.3 Hazard assessment</p> <p>The organization shall conduct, for each identified food safety hazard, a hazard assessment to determine whether its prevention or reduction to an acceptable level is essential.</p> <p>The organization shall evaluate each food safety hazard with regard to:</p> <p>a) the likelihood of its occurrence in the end product prior to application of control measures;</p> <p>b) the severity of its adverse health effects in relation to the intended use (see 8.5.1.4).</p> <p>The organization shall identify any significant food safety hazards.</p> <p>The methodology used shall be described, and the result of the hazard assessment shall be maintained as documented information.</p>	<b>Colombia</b>
<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> <ul style="list-style-type: none"> <li>• Risk assessment is defined in the Codex Procedure manual. So to avoid confusion, we proposes to use a new term "Water risk assessment" instead of "risk assessment".</li> </ul>	<b>Japan</b>
<p>Table 1, column heading 3</p> <p>Wastewater (Reused water untreated)</p>	<b>New Zealand</b>

<p>The definition of re-used water refers to water that has been recovered from a processing step within the food operation not wastewater which may relate to sewage.</p> <p>Table 1, column heading 7</p> <p>Potable water, deep ground water or other water, including treated waste water, that complies with the biological criteria applicable to potable water.</p> <p>Potable water, deep ground water or other water, including treated waste <b>reused</b> water, that complies with the <b>microbiological</b> criteria applicable to potable water.</p> <p>Wastewater may relate to sewage whereas this heading is considering the reuse of water from the food operation.</p>	
<p><b><u>RISK ASSESSMENT OF RISK TO DETERMINE DETERMINE FIT FOR PURPOSE</u></b></p> <p>Table 1</p> <p>The United States recommends increasing the risk in Table 1 for fresh produce to be cooked for both columns on wastewater and surface water/groundwater of unknown quality. Currently for produce to be cooked Table 1 indicates the risk as low for wastewater and surface water. However, 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, we do not think that water coming in contact with the produce is necessarily low risk. This risk level does not seem to be consistent with the suggested testing approaches in Example 3. As noted above, we recommend that FAO/WHO evaluate this table.</p> <p>Table 1 should reflect all types of water mentioned in the document. For example, the term "shallow well" is used elsewhere in the document but is not included in Table 1. Where does treated surface water (pond, river, canal) fit into this matrix? In addition, the document should be reviewed for use of consistent terminology for water sources and uses throughout. The terminology consistency can be addressed by FAO/WHO as it assesses the examples and Table 1.</p>	<b>USA</b>
<b>RISK MITIGATION/RISK MANAGEMENT STRATEGIES</b>	
<p>Paragraph 57 In the decision tree, we suggest replacing “Public/Municipal water (drinking)” with “potable water,” and, in relation to recirculated water, replacing “sanitizer agent” with “antimicrobial agent.” Although we agree with the proposed decision tree, we believe it is not adapted to the various situations in which food is produced.</p> <p>Paragraph 59 We are in favor of the proposed scores (paragraph 59) for risk systems and contact with fresh produce. We have no comments on this matter.</p>	<b>Argentina</b>
<p>1. The examples below are for illustration, voluntarily and may have to be adapted to national or local situations.</p> <p><b>Example 1:</b> International Life Sciences Institute (<i>ILSI</i>), 2008 (<a href="https://ilsi.eu/publication/considering-water-quality-for-use-in-the-food-industry/">https://ilsi.eu/publication/considering-water-quality-for-use-in-the-food-industry/</a>):</p>	<b>Australia</b>
<p>Para 57 Brazil proposes the following definition for item 57:</p> <p>In the decision tree, harmonize the terms used with the proposed definitions (e.g. replaced ‘treated wastewater’ for ‘reuse water’). In question 2, which standard to adopt in the absence of national standards? Is it possible to indicate any of the examples described?</p> <p>Para 62 Brazil proposes the following definition for item 62:</p> <p>In the presentation chemical hazards are included. It needs to be clear that physical/chemical hazards are outside the scope of this guidance. Including chemical/physical hazards throughout the document creates confusion.</p>	<b>Brazil</b>

<p>Para 53. In this paragraph do we mean bacteriophage in general or specifically coliphages? We should verify which terminology is more appropriate in this paragraph.</p> <p>Para 65. (Third bullet) "use of recycled water"</p> <p>Should this bullet point also include reclaimed water?</p>	<b>Canada</b>
<p>We propose the following indicators:</p> <p>50. Indicator organisms for faecal contamination are total coliforms, faecal coliforms (E. Coli), and coliforms.</p> <p>54. We are attaching the Guide for the Identification of Parasites in Water, which is available at <a href="https://www.ins.gov.co/BibliotecaDigital/guia-para-la-vigilancia-por-laboratorio-de-giardia-y-cryptosporidium-en-muestras-de-agua.pdf">https://www.ins.gov.co/BibliotecaDigital/guia-para-la-vigilancia-por-laboratorio-de-giardia-y-cryptosporidium-en-muestras-de-agua.pdf</a></p> <p>59. Scores related to:</p> <ul style="list-style-type: none"> <li>• Irrigation systems/ direct or indirect contact with fresh produce</li> <li>• No direct or indirect contact between irrigation water and produce: 0</li> <li>• Drip irrigation: 0.</li> <li>• Furrow irrigation: 1.</li> <li>• Overhead irrigation: 3.</li> </ul> <p>The scores would be better if they were changed from low to high. (If we decide to change this, we will need to edit paragraph 60 as well)</p> <p>71. In case positive for generic E. coli and/or coliforms, it is recommended not to use the water and to introduce corrective actions to bring water back to compliance with the acceptance criteria. Retesting and verification of the water quality in positive cases should include sampling and testing for Salmonella spp. and E.coli O157:H7.</p>	<b>Colombia</b>
<p>Para 56,57 Egypt suggests to give examples</p> <p>Para. 72, 73 Egypt recommends to ask FAO/WHO if validation of the examples can be considered, As well as Egypt request for providing further explanation on high/medium/low frequencies and thresholds biological contaminant.</p>	<b>Egypt</b>
<p>Para 59 60</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.</p> <p>Japan proposes to delete para 59-60 and to replace them by the Table 1 of the JEMRA report (i.e. MRA 33) with some amendments. Amendments on the Table 1 can include followings so that FBOs can use this tool in conjunctions with other tools in this draft document, taking into account the risk level of water sources and their local conditions. :</p> <ul style="list-style-type: none"> <li>- remove the column of "step 2 cross-reference"</li> <li>- remove the last two lines of "TARGET RISK REDUCTION (RR)" and "Example"</li> <li>- replace "scores" by "effectiveness rating" and add the introduction of Table 1 to para58 as follows :</li> </ul> <p>Example of effectiveness rating on risk mitigation options is shown in the table below.</p> <p>Japan hopes that the risk mitigation options in Table 1 will be added/fulfilled during discussion in CCFH with additional information e.g. JEMRA's future work</p>	<b>Japan</b>

<p>The national/local guidances, which are the basis of examples, would be revised in the future. Japan proposes to replace the DTs/tables by references to (and introductions of) each national/local guidances, so that CCFH will be able to deal with revisions of each national/local guidances easily.</p> <p>The practical guidances and tools (including MCs) in this annex are extracted from existing national/local guidances. They should be clearly mentioned as examples so that users of the draft document can apply them in accordance with the existing Codex documents, taking into account local conditions.</p> <p>In the title, the term "control measures including example" should be inserted in front of "microbiological criteria".</p> <p>Para 57</p> <p>Japan proposes to delete the para 57 and to make reference to the EU guidance with a brief introduction as follows :  Example: 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)  The EU guidance includes an example of "decision tree for determining necessity and frequency of water testing.</p> <p>The national/local guidances, which are the basis of examples, would be revised in the future. Japan proposes to replace the DTs/tables by references to (and introductions of) each national/local guidances, so that CCFH will be able to deal with revisions of each national/local guidances easily.</p> <p>Japan proposes :</p> <ul style="list-style-type: none"> <li>- to delete the figure in para 62 and paras 63-68 ;</li> <li>- to delete paras 70-72 ; and</li> <li>- to delete the table and the footnotes in para 73.</li> </ul>	
<p>Para 58 It should be acknowledged that <b>there is no single decision tool that applies fits in all situations. It therefore should be rather these should be considered as a way an approach to evaluate a situation instead of as a tool fixed for all purposes.</b></p> <p>Para 60 Irrigation water not in contact <b>with the edible portion of the fresh produce</b></p> <p>It is important to consider whether the water will come into contact with the edible portion of fresh produce</p>	<b>New Zealand</b>
<p>In example 3 the table gives a general example to decide on the frequency of sampling and applied microbiological criterion, based on the intended use and the source of the water. The indicated footnote 3 on untreated ground water collected from wells seems to be missing. However footnote 5 (regarding untreated surface water), seems to cover both sources, and could therefore replace footnote 3.</p> <p>Footnote 5 refers to the criteria of 100 CFU/100ml. We suggest revising this footnote in order to refer to all suggested microbiological criterion for the different use of water, and thereby clarifying that water meeting these criterions is considered safe to use:</p> <p>Surface water and ground water from wells (e.g. boreholes) might be of good microbiological quality and meet the suggested criteria for indicator of faecal contamination thresholds without treatment. If this is sufficiently documented, the water is considered safe to use for the intended purpose.</p>	<b>Norway</b>
<p>In Example 3, in the table, where it reads: "Intended use of the water/ Source of water /</p> <p>Suggested criteria for Indicator of fecal contamination: E. coli, Uruguay would like to make the following comments:</p> <p>Under "Source of water," in the column titled "Untreated surface water /open water channels," Uruguay believes the footnotes are numbered differently across versions. Under "Source of water," "Untreated ground water collected from wells," Uruguay believes the number appearing in the footnote should be removed. Under "Pre-harvest and harvest," "Medium</p>	<b>Uruguay</b>

<p>sampling and testing frequency,” Uruguay would like to provide the reference used to define medium and low frequency in this document. It should be what is quoted in Annex II of the Official Journal of the European Union, European Commission Notice No. 2017/C163/01.</p>	
<p>Paragraph 55 – Revise as follows:</p> <p>To decide on the frequency of sampling and applied microbiological CRITERIA, a table ASSESSING RISK (see example in the annex) can be used, considering the source and the intended use of agricultural water (e.g. irrigation system, WASHING fresh fruits and vegetable (FFV)), FFV characteristics, AND intended use of FFV, defining the suitability for agricultural purposes, the recommended microbiological threshold values and the frequency of monitoring.</p> <p>Rationale: editorial for clarification</p> <p>---</p> <p>Paragraph 57, Decision tree diagram, Question #3:</p> <p>Change “comes” to “come”</p> <p>Does the agricultural water COME into direct contact with...</p> <p>Rationale: Editorial</p> <p>---</p> <p>Paragraph 58, 2nd sentence:</p> <p>Change “acknowledging” to “acknowledged”</p> <p>It should be ACKNOWLEDGED that no decision tool fits in all situations.</p> <p>Rationale: Editorial</p> <p>---</p> <p>Paragraph 58, 3rd sentence: Delete the sentence and replace with the following:</p> <p>"THE SCORES BELOW ARE EXAMPLES FOR ILLUSTRATION ONLY; THERE CAN BE OTHER CONSIDERATIONS THAT WOULD RESULT IN A DIFFERENT SCORE."</p> <p>Rationale: The deleted sentence is unclear as written and can be deleted without losing anything from the document. The added sentence is to emphasize that other scores might be applied in other circumstance. For example, the score for overhead irrigation currently is '0'. In actuality, if clean water with no pathogens or treated water is used for overhead irrigation, the score could be higher, e.g., 2 or 3.</p> <p>---</p> <p>Post-Harvest</p> <p>We recommend moving the examples to an appendix.</p> <p>---</p> <p>Paragraph 61: Revise as follows:</p> <p>The examples below are for illustration, CAN BE USED voluntarily and may have to be adapted to national or local situations.</p> <p>Rationale: Editorial for clarification</p>	<p><b>USA</b></p>

<p>---</p> <p>Paragraph 63, 3rd bullet: Revise as follows:</p> <p>WHETHER THERE IS contact or not with the product, AND, if so, at which stage, as water, ice or steam?</p> <p>Rationale: Editorial to follow the lead in for the bullets (“consideration should be given to:”)</p> <p>---</p> <p>Paragraph 69: Revise as follows:</p> <p>In this example, it is recommended to use municipal water, well water with potable water quality or reverse osmosis for any WATER IN direct contact with edible portions of harvested crops,...</p> <p>Rationale: editorial for clarification</p> <p>---</p> <p>Example 3 Table:</p> <p>The column for “Untreated ground water collected from wells” has a footnote 3; there is no such footnote and footnote 5 appears relevant.</p> <p>Consider adding a column under “Source of Water” for deep well water, as deep well water is often free of bacteria and is potable.</p> <p>The last row of pre-harvest in the table has text that has been cut off. Text in the table should be adjusted for readability (not breaking words in odd places).</p> <p>The last section/row of the table “Only Potable Water” does not fit the format of the table – it has columns for the 6 sources of water and testing frequencies, but it is not clear how some of these sources would be potable.</p> <p>Rationale: Editorial</p>	
<p>Para 59 Bullet point "Microbial testing of the water": Enterococci. Is mentioned in paragraph 50 but not here. So either this is added here or propose to delete from paragraph 50</p> <p>Para 71: Consider expanding beyond O157:H7 to broader STEC testing.</p>	<b>FoodDrinkEurope</b>
<p><b>ANNEX II Fishery Products</b></p>	
<p><b>Specific questions specific to this annex:</b></p> <p><b>Q1: choose the most appropriate definitions for fishery products, harvesting and fit for purpose water from the proposed definitions in section 4</b></p> <p><b>Q2: consider if the information provided in the annex so far is enough or to hold the document until the JEMRA expert meeting report on water use and reuse for fish and fishery products becomes available to include further information</b></p>	
<p>Argentina supports the following definitions:</p> <ul style="list-style-type: none"> <li>o Fishery products: Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption.</li> </ul> <p>Rationale: Fishery products are never specifically defined in any edition of the Codex Alimentarius's Code of Practice for Fish and Fishery Products. However, when defining good practices specific to each product, products are broken down by type: crustaceans, mollusks, and gastropods. Since practices for echinoderms, holothurians, and aquatic reptiles (which are included in option 2) are not included here, and in order to avoid any confusion arising from inconsistency between documents, we believe these should not be included in this definition. Option 2 refers to “products</p>	<b>Argentina</b>

<p>derived therefrom,” which includes various cuts as well as derived products such as oils, leather, or flour. This goes beyond the scope of this Annex.  Harvesting: Operations involving taking the fish from the water  Rationale: This is based on the definition of harvesting in the Code of Practice for Fish and Fishery Products (CXC 52-2003, updated in 2020).  “Harvesting: Operations involving taking the fish from the water”</p> <ul style="list-style-type: none"> <li>o Water fit for purpose: Water of such quality, that it does not confer any hazard to the health of persons using the water for hygienic purposes or to the consumer of fishery products that have been in direct or indirect contact with the water (e.g., cleaning of the fishery products, transport, cooling, holding/storage, processing, and cleaning of facilities, equipment, and utensils).</li> <li>o Argentina believes we should hold this document until the JEMRA expert meeting prepares its report on water use and reuse for fish and fishery products.</li> </ul> <p>Rationale: The Codex texts should be based on scientific evidence. For this reason, having the technical information contained in the document approved by the expert committee would be appropriate.</p>	
<p>Definitions: fit for purpose water is also defined in the main part (“water fit for purpose”). Any definitions should be consistent (for both title and text). Support a single generic definition in the main text and not duplicating it in the fishery annex. Propose the following text: “Water whose safety requirements are determined by its use (product cleaning, cooling, holding/storage, transport, processing, cleaning of utensils facilities, equipment) and will not confer any hazard at the point of application.”</p> <p>Fishery products: Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption.</p> <p>Definitions: Harvesting: Support use of the following definition: “Catching, capturing or taking of fish from growing areas”</p>	<b>Australia</b>
<p><b>Q1</b></p> <p>Fishery products bis: any cold-blooded aquatic animal, or any part or product derived therefrom, intended for food for human consumption, and includes any fish, crustacean, molluscs, echinoderm, holothurian, or aquatic reptile;”</p> <p>Rationale: Brazil prefers this definition because it is more comprehensive.</p> <p>Harvesting: the process of gathering and removing fish from the place in which it has grown.</p> <p>Rationale: Text adapted from <a href="https://www.fao.org/flw-in-fish-value-chains/value-chain/capture-fisheries/en/">https://www.fao.org/flw-in-fish-value-chains/value-chain/capture-fisheries/en/</a>.</p> <p>Fit for purpose water: unnecessary definition in the Annex II - Fishery Products.</p> <p>Rationale: This definition is already included in the general part of the document. What is the need to draw up a different definition for fish products?</p> <ul style="list-style-type: none"> <li>• To consider if the information provided in the annex so far is enough or to hold the document until the JEMRA expert report meeting on water use and reuse for fish and fishery products becomes available to include further information.</li> </ul> <p>Rationale: Yes, Brazil agrees.</p>	<b>Brazil</b>
<p><b>Q2:</b></p> <p>Canada would support holding the document until the JEMRA report meeting on water use and reuse for fish and fishery products becomes available to include further information. It would also offer the possibility to continue the work in an electronic working group format.</p> <p>It was also noted that the examples do not address shellfish operations. Could the examples be modified or perhaps a 3rd example added that speaks to, for example, clams and oysters. For instance: shucking instead of ‘degutting’. Many scenarios require shellstock relaying and/or depuration before going to the process environment.</p>	<b>Canada</b>

<p><b>Q1:</b> Canada recommends deleting the three proposed definitions for fit for purpose water. Canada is of the view that the definition of “fit for purpose water” found in the general section of the document should apply to the whole document, including the annexes.</p> <p>We support the definition included in the general section of this document on page 4:</p> <p>Water fit for purpose: water which is determined through an assessment of risk to be safe when used as intended</p> <p>As mentioned in the guidelines, this document provides a risk-based framework of general principles for making decisions on criteria for fit for purpose water to be used in producing safe and suitable food for consumption. It does not stipulate that water should never confer any hazards otherwise this would imply that there is never a decision to be made.</p> <p>For example, seawater is often used by vessels for certain activities such as rinsing off whole fish. It is not possible to exclude the possibility that it will confer a hazard, as suggested in the other definitions, but it’s possible to mitigate hazards that may be conferred by subsequently cleaning the fish in potable water and quickly cooling the fish to 4C.</p> <p>Members and observers are invited to: (First Bullet) The word "harvesting"</p> <p>The first definition is more appropriate, but should be modified to be more inclusive of aquaculture operations and expanded to include all aquatic animals. The other definition refers to growing water which is not accurate for wild-caught fish.</p> <p>Proposed definition:</p> <p>Operations involving removing the aquatic animal(s) from the water or substrate (as in the case of oysters and clams harvested on tidal flats/intertidal zones/other structures at low tides).</p> <p>Members and observers are invited to: (First Bullet) The word "fishery products"</p> <p>The definition of fishery products bis, is more detailed and specific. However, we would suggest removing “holothurian” since we believe it is covered under echinoderm.</p> <p>There may be regional variation in the scope of products included. For example, Canada’s regulations does not specify cold-blooded animals and thus, includes animals such as seals. Also, aquatic reptiles is not recognized a fishery product in Canada.</p> <p>In additions, the definition of fish in the Code of Practice for Fish and Fishery Products is as follows:</p> <p>Any of the cold-blooded (ectothermic) aquatic vertebrates. Amphibians and aquatic reptiles are not included</p> <p>Should we consider aligning the definition to the Code of Practice for Fish and Fishery Products for consistency and clarity?</p>	
<p>Seeing as the expert committee could provide relevant information, we believe it would be prudent to hold this document and add the resulting scientific information to it, as appropriate. We should also take into account the work on the fishery code, which is related to this topic.</p>	<p><b>Colombia</b></p>

<p>Costa Rica believes we should hold the document until the JEMRA expert meeting report on water use and reuse for fish and fishery products becomes available.</p> <p>Costa Rica supports the following definition: Water fit for purpose: Water of such quality, that it does not confer any hazard to the health of persons using the water for hygienic purposes or to the consumer of fishery products that have been in direct or indirect contact with the water (e.g., cleaning of the fishery products, transport, cooling, holding/storage, processing, and cleaning of facilities, equipment, and utensils).</p> <p>Costa Rica supports the following definition of water:</p> <p>Water fit for purpose: Water of such quality, that it does not confer any hazard to the health of persons using the water for hygienic purposes or to the consumer of fishery products that have been in direct or indirect contact with the water (e.g., cleaning of the fishery products, transport, cooling, holding/storage, processing, and cleaning of facilities, equipment, and utensils).</p> <p>Costa Rica supports the definitions included in the annex. However, we suggest removing the following definitions: hatchery, harvesting, harvesting bis.</p> <p>Rationale: The body of the text does not refer to these terms: for this reason, we do not see a need to include them.</p> <p>We support the following definition of fishery products:</p> <p>Fishery products bis: any cold-blooded aquatic animal, or any part or product derived therefrom, intended for food for human consumption, and includes any fish, crustacean, molluscs, echinoderm, holothurian, or aquatic reptile;"</p>	<b>Costa Rica</b>
<p>Egypt recommends holding the document until the JEMRA expert report meeting on water use and reuse for fish and fishery products becomes available to include further information.</p>	<b>Egypt</b>
<p>- The EUMS consider that input from the JEMRA expert report is essential to finalise this Annex. The EUMS encourage JEMRA to proceed with its work and make the outcome as soon as possible available at least for the chairs of this draft guidance.</p> <p>Comments relevant for the whole document:</p> <ul style="list-style-type: none"> <li>• Consistency should be ensured as regards</li> </ul> <p>- “decision tree tools (DTT)” versus “decision tools (DT)” versus “decision support systems (DDS) tools”; to note that “DT” is also used for “decision tree”.</p> <p>- “biological” versus “microbiological”. Considering the scope is broader than microbes, “biological” seems the correct wording.</p>	<b>European Union</b>
<p>Suggests to hold the document until the JEMRA expert report meeting on water use and reuse for fish and fishery products becomes available to include further information.</p>	<b>India</b>
<p>Japan suggests that the definitions should be consistent with CXC52 the other relevant Codex documents since this draft document should be used in conjunctions with them.</p> <p>In addition to that, the decision on whether to choose the most appropriate definitions should be made after inputs from JEMRA are fully available.</p> <p>Japan agrees to hold the document until expert advices from JEMRA are fully available.</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 draft document should be biological hazards where the inputs from JEMRA are/will be available.</p>	<b>Japan</b>

<p>The practical guidances and tools (including MCs) extracted from existing national/local guidances should be clearly mentioned as examples so that users of the draft document can apply guidances and tools in accordance with the existing Codex documents, taking into account local conditions.</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. Throughout this document, a term "chemical and physical hazards/comtaminants" should be revised.</p>	
<p>Kenya is of the opinion that the information provided so far in the annexes is enough to enable the document progress to the next stage of development.</p>	<b>Kenya</b>
<p>Malaysia also agrees to hold the document until the JEMRA expert report on water use and reuse for fish and fishery products becomes available.</p> <p>Malaysia agrees with the following definitions as in Annex II Fishery Products:</p> <p>Fishery products: "Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption".</p> <p>Harvesting: "Operations involving taking the fish from the water"</p>	<b>Malaysia</b>
<p>Annex II Fishery Products</p> <p>Regarding the question about: To consider if the information provided in the annex so far is enough or to hold the document until the JEMRA expert report meeting on water use and reuse for fish and fishery products becomes available to include further information.</p> <p>JUSTIFICATION:</p> <p>We consider it appropriate to retain the document and await the report of the JEMRA expert meeting in order not to omit information that may be useful for the preparation of the guidelines</p>	<b>Mexico</b>
<p>We consider the JEMRA expert report as essential to finalise the Fishery Products annex, and will strongly recommend holding the annex until the expert report is available.</p>	<b>Norway</b>
<p>With respect to the following definitions:</p> <p>Fishery products bis: any cold-blooded aquatic animal, or any part or product derived therefrom, intended for food for human consumption, and includes any fish, crustacean, molluscs, echinoderm, holothurian, or aquatic reptile;"</p> <p>Harvesting: Operations involving taking the fish from the water</p> <p>Fit for purpose water: Water whose safety requirements are determined by its use and will not confer any hazard at the point of application.</p> <p>As to whether the information should remain in the document until JEMRA publishes its report on water use and reuse for fish and fishery products, we should hold the document until the JEMRA expert meeting report on water use and reuse for fish and fishery products becomes available.</p>	<b>Peru</b>
<p>Saudi Arabia find the following definition more appropriate:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Fishery products: Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption.</li> <li><input type="checkbox"/> Harvesting: Operations involving taking the fish from the water.</li> <li><input type="checkbox"/> Fit for purpose water: Water of such quality, that once it has been in direct or indirect contact with the fishery products (during cleaning, storage, transport, processing; cleaning of utensils, facilities, equipment; as well as for its use in the hygiene for the personal in contact with food), it will not confer any hazard to the health of consumers.</li> </ul> <p>Saudi Arabia suggests holding the document until the JEMRA expert report meeting becomes available to include any further information.</p>	<b>Saudi Arabia</b>

<p><b>Q2</b> The information in this Annex, especially the risk assessment and decision tree, may be further reviewed and amended after the JEMRA expert report becomes available in order to present them in an easier to read format, suitable for the Codex Guidelines.</p>	<b>Thailand</b>
<p>Uruguay believe it would be more appropriate to wait until the JEMRA expert meeting report on water use and reuse for fish and fishery products becomes available.</p>	<b>Uruguay</b>
<p><b>Q1</b> The United States has provided comments below on definitions.</p> <p><b>Q2</b> The United States believes this annex should be held until the relevant information from JEMRA is available.</p>	<b>USA</b>
<b>PURPOSE AND SCOPE</b>	
<p>Paragraph 3 – Revise as follows, adding a new third sentence and making a new paragraph for the remainder of the original text:</p> <p>3. The purpose and scope of this annex is to elaborate on recommendations for the quality sourcing, use, and reuse of water in direct and indirect contact with fish and fishery products. The scope includes farming or capture of the fish or fishery product, as well as subsequent holding and processing activities, by applying the ‘fit for purpose’ principle and using a risk-based approach. WATER FIT FOR PURPOSE FOR FISHERY PRODUCTS IS WATER OF SUCH QUALITY, THAT ONCE IT HAS BEEN IN DIRECT OR INDIRECT CONTACT WITH THE FISHERY PRODUCTS (DURING CLEANING, STORAGE, TRANSPORT, PROCESSING; CLEANING OF UTENSILS, FACILITIES, EQUIPMENT; AS WELL AS FOR ITS USE IN THE HYGIENE FOR THE PERSONAL IN CONTACT WITH FOOD), IT WILL NOT CONFER ANY HAZARD TO THE HEALTH OF CONSUMERS.</p> <p>3bis. The annex recommends Good Hygiene Practices, and risk-based sector-specific potential intervention strategies, relevant to water and its use. It also provides 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 fish and fishery products.</p> <p>Rationale: Incorporate the information in the proposed definition of “fit-for-purpose water” into the text to avoid defining “fit-for-purpose water” in this annex when there is a definition of “water fit for purpose” in the general section.</p>	<b>USA</b>
<b>USE</b>	
<p>To be consistent with the main document and the Annex 1, Japan proposes to insert the term "is complementary to and" in front of "should be used in...".</p>	<b>Japan</b>
<p>Para 4. For consistency with the Annex I Fresh Produce, use same format. (Text should read as follows)</p> <p>This annex is complementary to and should be used in conjunction with the:</p>	<b>Canada</b>
<b>DEFINITIONS</b>	
<p>Canada is of the view that definitions should be limited to those that are essential for the implementation of the guidance. Some terms are already defined in the Code of Practice for Fish and Fishery products, while other terms are commonly used and well understood or are not used in the annex, yet a definition is included, e.g., evisceration, hatchery, aquaculture pond, processing plant.</p>	<b>Canada</b>
<p>We suggest the following option:</p>	<b>Colombia</b>

Fit for purpose water: Water whose safety requirements are determined by its use and will not confer any hazard at the point of application.	
<p>Egypt recommends the definition of “Fishery products” as the following:</p> <p>Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption.</p> <p>Egypt will not choose one definition of “harvesting” from document but will suggest a new definition as the following:</p> <p>Harvest - getting fish out of production facilities in good condition so their survival and quality for other uses are assured.</p> <p>Egypt recommends the definition of “Fit for Purpose Water” as the following: Water whose safety requirements are determined by its use and will not confer any hazard at the point of application.</p>	<b>Egypt</b>
<ul style="list-style-type: none"> <li>• Fishery products: the first definition is preferred since the second one includes aquatic reptiles which would contradict the referred definition of “fish” in CXC 52-2003.</li> <li>• Harvesting: the first definition, included in CXC 52-2003, is preferred and it is proposed to include the following in bold: Operations involving taking the fish from the water for the purpose of food production.</li> <li>• Fit for purpose water: It is considered that there is no added value in introducing a definition in Annex II since a definition is provided in the main document.</li> </ul>	<b>European Union</b>
<p>For Fit for purpose water this definition is preferred:</p> <p>" Water of such quality, that it does not confer any hazard to the health of persons using the water for hygienic purposes or to the consumer of fishery products that have been in direct or indirect contact with the water (e.g., cleaning of the fishery products, transport, cooling, holding/storage, processing, and cleaning of facilities, equipment, and utensils)."</p>	<b>Iran</b>
<ul style="list-style-type: none"> <li>• The definitions of "acuaculture pond", "hatchery" and "processing plant" should be deleted from the section since it is not used in the Annex II.</li> <li>• Japan suggests that the definition of "fishery products" and "fit-for purpose water" should be consistent with CXC52 and that the decision on which definition is more appropriate should be made after inputs from JEMRA are fully available.</li> </ul>	<b>Japan</b>
<p>Kenya proposes the following definitions for “fishery products, harvesting and fit for purpose water”, as the most appropriate definitions from the proposed definitions in section 5, as they are more precise:</p> <p>-Fishery products: Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption</p> <p>-Harvesting: Operations involving taking the fish from the water</p> <p>-Fit for purpose water: Water of such quality, that once it has been in direct or indirect contact with the fishery products (during cleaning, storage, transport, processing; cleaning of utensils, facilities, equipment; as well as for its use in the hygiene for the personal in contact with food), it will not confer any hazard to the health of consumers.</p>	<b>Kenya</b>
<p>Fit for purpose water:</p> <p>We prefer the following wording:</p> <p>Fit for purpose water: Water of such quality, that it does not confer any hazard to the health of persons using the water for hygienic purposes or to the consumer of fishery products that have been in direct or indirect contact with the water (e.g., cleaning of the fishery products, transport, cooling, holding/storage, processing, and cleaning of facilities, equipment, and utensils). We consider that this definition is more adequate</p> <p>JUSTIFICATION:</p> <p>We consider that this definition is more adequate</p> <p>Harvesting</p>	<b>Mexico</b>

<p>We prefer the wording raised in Harvesting.</p> <p>Harvesting: Operations involving taking the fish from the water</p> <p>Justification:</p> <p>We consider that this definition is more adequate</p> <p>Fishery products bis</p> <p>We prefer the definition of Fishery products bis.</p> <p>Justification:</p> <p>We prefer the definition of Fishery products bis. We consider this definition to be more complete</p>	
<p>Fishery products</p> <p>We support using the first definition:</p> <p>Any species of fish, including crustaceans, molluscs, gastropods, or part of them intended for human consumption.</p> <p>The second definition includes aquatic reptiles which would contradict the referred definition of "fish" in CXC 52-2003.</p> <p>Harvesting</p> <p>We support the first definition, as defined in CXC 52-2003:</p> <p>Operations involving taking the fish from the water</p>	<b>Norway</b>
<p>We choose the definition 'Fishery products bis' for Fishery products, however that there needs to be a bit of revision in the explanation. The current definition does not include the aquatic plants thus, we suggest the following phrase in the quotation mark to be included in the definition.</p> <p>Fishery products bis: any cold-blooded aquatic animal, "aquatic plants" or any part or product derived therefrom, intended for food for human consumption, and includes any fish, crustacean, molluscs, echinoderm, holothurian, or aquatic reptile;"</p> <p>For 'harvesting', we choose the definition of 'harvesting' instead of 'harvesting bis'</p> <p>For 'Fit for purpose water', we choose the second option, "Water of such quality, that it does not confer any hazard to the health of persons using the water for hygienic purposes or to the consumer of fishery products that have been in direct or indirect contact with the water (e.g., cleaning of the fishery products, transport, cooling, holding/storage, processing, and cleaning of facilities, equipment, and utensils)"</p>	<b>Republic of Korea</b>
<p>o To choose the most appropriate definitions for fishery products, harvesting and fit for purpose water, from the proposed definitions in section 4.</p> <p>For definition of 'fishery products', the definition in Fishery products bis is preferred since it is more in line with the Code of Practice for Fish and Fishery Products (CXC 52-2003).</p> <p>For definition of 'harvesting', CXC 52-2003 should be referred to so that the definitions in both standards are consistent.</p> <p>For definition of 'fit for purpose water', we are of the opinion that either definition of the latter two in page 23 of the CX/FH 22/52/8 can be used. However, it should also be in line with the definition of water fit for purpose in the main text.</p>	<b>Thailand</b>
<p>Fit for purpose water: Uruguay believes the second definition is more adequate.</p>	<b>Uruguay</b>

<p>Fishery Products – Two definitions are provided. The United States prefers the second – “Fishery Products bis.”</p> <p>Harvesting - Two definitions are provided. The United States prefers the second – “Harvesting bis.”</p> <p>Fit for purpose water – The United States recommends deletion of these definitions and incorporating the information in the first one into the text in paragraph 3 as shown above.</p> <p>Rationale – The General Section of the document defines "Water fit for purpose" as water which is determined through an assessment of risk to be safe when used as intended. It is confusing to then have a definition of “fit for purpose water” that is different. That said, we agree that this annex needs to address what constitutes water fit for purpose for fisheries products; this is best done through the discussion in the text rather than providing a new definition.</p>	<b>USA</b>
<p>IFT believes the original definitions (not identified as 'bis') are the optimal choice and that the last (third) bullet on "fit for purpose water" is the best choice.</p>	<b>IFT</b>
<b>WATER USED AT FISH FARMS OR IN GROWING AREAS</b>	
<p>Para 9. Fresh water is generally not used for the wet storage of bivalve shellfish. In-land based systems for bivalve shellfish is often sourced from the marine environment and treated before use.</p> <p>Para 12. The text first refers to water choices in land-based operations although the section is specific to vessels. "Considering whether to use fresh or seawater in land-based operations,"</p> <p>Para 15. The decision tree example points only to V. parahaemolyticus. Can the decision tree be used for other hazards? If yes, we suggest clarifying this.</p> <p>Diagram - Decision Tree example of onshore processing of marine/estuarine fish The DT example indicates that if potable water is used for ice, Vp and other hazards should be considered. Potable means that the water is microbiologically suitable so it does not seem accurate to indicate that this hazard should be considered.</p> <p>All arrows point to Vp being considered a hazard. In this case there is no decision to be made. Is the intent to determine the order of magnitude of risk? If so, this rank ordering should be more clear in the diagram.</p> <p>It's not clear why both Y and N for storage below 4C point to Vp hazard.</p>	<b>Canada</b>
<p>Paragraph 11 We suggest the following: 11. ... When considering sources of water, including for the manufacture of ice, chilling, or cleaning in onboard fishing vessels, brackish water or seawater will be the natural choice for the water source.</p>	<b>Colombia</b>

In the Spanish, “ <i>en</i> ” should be replaced with “ <i>a.</i> ” [Translator’s Note: The proposed edit affects the Spanish version only, not the English version]	
Japan suggests that CCFH should start discussion on the draft examples after inputs from JEMRA are fully available. Please refer to the general comments.	<b>Japan</b>
<p>Paragraph 5</p> <p>Fit for purpose water:</p> <p>Fit for purpose water: Water of such quality, that once it has been in direct or indirect contact with the fishery products (during cleaning, storage, transport, processing; cleaning of utensils, facilities, equipment; as well as for its use in the hygiene for the personal in contact with food), reusing it will not confer any hazard to human health.</p> <p>Fishery products bis</p> <p>Fishery products bis: any cold-blooded aquatic animal, or any part or product derived therefrom, intended for food for human consumption, and includes any fish, crustacean, molluscs, echinoderm, holothurian, or aquatic reptile;” [Translator’s Note: This change affects the Spanish version only]</p> <p>Paragraph 7</p> <p>Annex II Fishery Products</p> <p>Extensive systems refer to coastal bivalve cultures, coastal fishponds or open sea cages. This water should be, to the extent possible, consistent with Good Aquaculture Practice recommendations.</p>	<b>Mexico</b>
<p>Comment on paragraph 7: Our understanding is that this section covers fish farming, including intensive farming. Therefore we suggest the following new wording of paragraph 7 in order to include systems not covered by extensive or land-based systems (The greatest part of fish farming in Norway is intensive):</p> <p>Water used at fish farms or in growing areas should be, to the extent possible, consistent with Good Aquaculture Practice recommendations such that the cultivated fishery products are safe for human consumption.</p> <p>Comment on paragraph 9: We suggest including the use of seawater in this paragraph, in line with current practice for land-based systems. Based on this, we suggest deleting the first sentence of paragraph 9.</p> <p>In addition, we suggest that the use of seawater in land-based system are considered and described in this section.</p>	<b>Norway</b>
<p>In paragraph 15, “Decision Tree example of onboard processing and handling of marine/estuarine fish,” Uruguay believe we should also include the decision trees on:</p> <ul style="list-style-type: none"> <li>• Production of fishery products;</li> <li>• Processing and handling of freshwater fish</li> </ul> <p>As both of these are within the scope of the document.</p> <p>In the Decision Tree example of onshore processing of marine/estuarine fish, Uruguay believes all letters appearing in the figure should be identified.</p>	<b>Uruguay</b>
Paragraph 12 – Revise as follows:	<b>USA</b>

<p>The decision ON WHETHER TO USE FRESH OF SEAWATER IN LAND-BASED OPERATIONS will depend on several factors, such as the type of water available, the availability of a regular water supply, the location of the ice plant, etc.</p> <p>Rationale: Editorial</p> <p>---</p> <p>Paragraph 13, first bullet – change “needs” to “need”</p> <p>Rationale: Editorial</p> <p>---</p> <p>Examples of Decision Tree (DT) use on Harvesting and Processing Fish</p> <p>These examples appear to be decision trees about whether the load of <i>Vibrio parahaemolyticus</i> is too high. This annex is about water is fit for purpose in the production of fishery products. These appear to be useful decision trees, but there should be discussion on how the outcome (e.g., load of <i>Vibrio parahaemolyticus</i>) ties to whether the water used at specific points is fit for purpose.</p> <p>Only in the decision tree for onshore processing is there a step in which it is concluded that the water was fit for purpose (i.e., washing the fish cavity with potable water). This example could contain additional discussion to indicate whether other water used was fit for purpose, perhaps using “if-then” statements, i.e., if seawater used for fish storage is taken onboard at sea away from engines or areas where waste is eliminated, and water temperature is below X, the water should provide minimal contribution of pathogens such as <i>Vibrio parahaemolyticus</i> and would be considered fit for purpose.”</p> <p>Also, as noted in previous comments, having a single box that indicates water was fit for purpose could imply that this is not the case for other water uses (e.g., potable freshwater used for ice). Having more discussion on what outcomes would lead one to determine that the water used was fit for purpose would avoid such implications.</p> <p>Also as noted in previous comments, there are some formatting issues with the second diagram, such as the letters t, u, v and w are missing from the boxes and there is a dotted line that is not explained.</p>	
<b>WATER USED AT HARVESTING AND FOR ONBOARD PROCESSING AND PRESERVATION</b>	
<p>In questions s), o), v) and q) it is indicated that both the affirmative and negative answers conclude in the risk by Vp. Which does not fulfill the function of the diagram as a support in decision making.</p>	<b>Mexico</b>
<b>WATER USES AT PROCESSING IN LAND ESTABLISHMENT</b>	
<p>Paragraph 16</p> <p>Water is used for washing fish, cleaning process areas, cooling and other processing purposes such as brining fish, glazing of frozen fish to maintain quality during frozen storage, etc.</p>	<b>Mexico</b>
<b>WATER RE-USE</b>	
<p>Para 18 The comparatively large water usage for fish production may confine <b>the possible reuse of water wastewater recovery</b> to essentially on-site or near-site usage of recovered wastewater.</p> <p>Suggest using definitions provided in the general section of the draft proposed guidelines.</p>	<b>New Zealand</b>