codex alimentarius commission

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS

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DISCUSSION PAPER ON THE PROCEDURE FOR THE INCLUSION OF ADDITIONAL SPECIES IN CODEX STANDARDS ON FISH AND FISHERY PRODUCTS

(Prepared by France)

The mandate from the CCFFP

1. At its 25th Session, the Codex Committee on Fish and Fishery Products examined a discussion paper, prepared by France, on the procedure for the inclusion of additional species and on the labelling requirement concerning the name of the product in the Codex standards. Following the discussions at this 25th session, the Committee asked France to revise its discussion paper in order to consider how the procedure for the inclusion of additional species in the standards for fish and fishery products could be modified to take into account in particular new methods and scientific data.

Introduction

2. The Codex standards for fish and fishery products mention, in their section "Product definition", the lists of species (or of families for the standards for shrimps, crab meat, lobsters or squids) from which the products covered by these standards can be processed.

3. Some countries estimate that other species or families have a quality level similar to those already listed in the standards and would like the inclusion of these species in these standards.

4. The potential reward for this inclusion in a Codex standard is of course linked to the international recognition of the product in question, and it is perfectly legitimate for a country to want to derive maximum benefit from its resources and expertise. This recognition is associated primarily with the commercial name of the product. Authorization to use a name with established repute in international trade is therefore an important asset and a declared objective. However, there are many species seeking value-enhancing appellations, but such appellations are relatively few.

5. In these conditions, the product obtained from the species candidate for inclusion needs to have characteristics that are similar to those of products processed from the species already covered by the standard. This implies a procedure for inclusion that is based on sufficiently discriminating evaluation criteria. On the other hand, labelling provisions in the standards need to be sufficiently clear to avoid misleading consumers and creating conditions of unfair competition in international trade.

6. This discussion paper begins with examining the current procedure for the inclusion of additional species in the standards for fish and fishery products. It then makes proposals for improving the effectiveness of this inclusion procedure.

1. Analysis of the current procedure for the inclusion of additional species

1.1. DESCRIPTION OF THIS PROCEDURE

7. The current procedure for the inclusion of additional species is set out in document CL 1995/30-FFP. A country wishing to propose the inclusion of new species should provide the Committee with:

- an attestation from an appropriate recognized institution regarding the scientific name, and other relevant taxonomic information for the species in question;
- data on existing and potential resources, and on products derived therefrom;

- the form in which the product will be marketed and the proposed processing technology for each form of presentation, including samples;
- reports from at least three laboratories from those to be nominated by the Committee, stating that the organoleptic properties of the new species after processing conform with those of the processed species currently included in the pertinent standard.

8. The first three points are factual and unrelated to product quality. However, the fourth requirement implies a sensory evaluation that needs to be based on a prior defined sensory profile and that specifies the quality criteria sought for the standard in question.

9. Document CL 1995/30-FFP also specifies that “to develop such a procedure, the Committee should appoint a Working Group on this subject, which shall formulate criteria and parameters, as well as scoring systems, to be used by the laboratories nominated by the Committee in the evaluation of new species and products derived therefrom. The nominated laboratories shall reflect as far as possible the different world regional criteria for acceptance and the interests involved”.

10. This proposal of the Committee does not appear to have been acted upon, and in these conditions, the evaluation criteria were not carefully defined.

1.2 DO THE REVISED CODEX STANDARDS PROVIDE QUALITY EVALUATION CRITERIA THAT ARE SUFFICIENTLY DISCRIMINATING FOR APPLICATION OF THE PROCEDURE?

11. To answer this question, we need to review the way in which all the standards for fish and fishery products were revised during the 1990s.

1.2.1 The revision approach

12. The approach adopted for the revision process was governed by the need to simplify standards and to facilitate their application in international trade. The process was guided by two major principles:

a) Grouping standards and simplifying their scope

13. The collection of old standards included a large number of "specific" standards whose scope was limited to one combination of species (or limited group of species)/method of processing.

14. Some of the revised standards grouped species together. A more general scope was adopted and oriented more towards defining the end product than the raw material for its production.

15. For example, the standards for frozen cod and haddock fillets, for frozen redfish fillets, for frozen fillets of flatfish and frozen fillets of hake were grouped under a single standard for frozen fish fillets. The standard for frozen eviscerated Pacific salmon was turned into a more general standard for quick frozen finfish, non-eviscerated and eviscerated. There was also the standard for canned mackerel and horse mackerel that became the standard for canned finfish. In these three cases, the name of the product is defined by the law or custom of the country in which the product is sold.

b) simplification of the essential composition and quality factors

16. The old standards included detailed specifications for product quality and presentation. The "essential quality factors" sections were noticeably more detailed than those of the revised standards, with particular attention paid to the notion of "characteristic of the species", whether aspect, odour, flavour or texture. Conformity of a product to a standard was assessed in terms of compliance with a certain quality and with the characteristics of the species. Such a notion is however difficult to define objectively and can, of course, vary from one country to another, according to production expertise and consumption traditions.

17. In the revised standards, the provisions of the section on "essential quality factors" permit a distinction between acceptable product and product unfit for consumption. Conformity is thus assessed on the basis of absence of defects likely to render the product unfit for consumption. The other product quality provisions that featured in the old standards have been placed in annex of the draft Code of Practice for Fish and Fishery Products and are presented as optional finished product specifications for the attention of sellers and purchasers for the establishment of specifications.

1.2.2 Consequences of the revision approach - Risks of confusion in the Codex standards

18. The risk exposed here is the risk of confusion for the consumer on the product identity.

19. As it was shown previously, the revision of the standards resulted in a simplification of the scope with grouping of species, and the suppression of quality criteria that were “characteristic of the species”. This led to risks of confusion in the current Codex standards concerning the name of the products.

20. We need to identify precisely the sources of confusion resulting from this revision approach.

21. **We can distinguish two types of standard among the Codex standards for fish and fishery products**:

22. * **general** standards dealing with major groups of marine animals without distinction of species. These define the general characteristics of products according to the form of processing, e.g. quick frozen fish fillets, canned finfish.

23. * **specific** standards defining a combination of species (or limited group of species)/processing, e.g. canned sardines and sardine-type products, canned tuna and bonito, quick frozen shrimps or prawns, salted herrings and sprats.

24. We can see that the risks of confusion lie basically in the specific standards that cover a limited number of species.

25. Thus the “X sardine” appellation in the standard for canned sardines and sardine-type products is incoherent with labelling provisions in other standards or draft standards. For example, *Sprattus sprattus* and *Clupea harengus* are “sprat” and “herring” in the draft standard for salted Atlantic herring and salted sprats, but are “X sardine” when canned.

26. *Clupea bentincki* is candidate for the appellation “X sardine”, but could one day be presented as a herring in the draft standard for salted herrings and sprats, as there are likely to be in the world other salted products derived from *Clupeidae* in comparable conditions.

27. *Engraulis mordax*, *E. anchoita* and *E. ringens* are considered “anchovies” in the draft standard for boiled dried salted anchovies, but as “X sardine” when canned. On the other hand, *Engraulis encrasicolus* anchovy is not considered as a canned sardine-type product. There are plants in Europe canning anchovies in oil, in the same way as sardines, and producing an item valued by consumers as canned anchovies; it would be unthinkable to market these as sardines, and marketing them as "sardine-anchovies" would lead to confusion. Yet, where such a request to be made, application of the procedure for inclusion would almost certainly result in this species being included in the list of sardine-type products. As matters presently stand, the production of canned *Engraulis encrasicolus* anchovies should logically be covered by the standard for canned finfish, as the standard covers all species of fish that are not covered by other standards for canned products. In this case, the name given to the product is the *common or usual name of the species used in accordance with the laws and practices of countries where the product is sold, so as not to mislead the consumer*.

28. The same reasoning could be applied to fish belonging to the *Scombridae* family, but not in the list of species in the standard for canned tuna and bonito. These products could in theory be covered by the standard for canned finfish. Yet many countries are probably using the terms “tuna” or “bonito” as the usual names for these fish. This can result in confusion or unfair competition.

29. The standard for salted fish and dried salted fish from the *Gadidae* family of fishes avoids these problems. It applies to a whole family of fish; there is no need for a procedure to include additional species. However, the labelling section specifies that the name of the food should include the name of the fish species.Although not actually specified in the standard, we can suppose that this means the *common or usual name of the species used in accordance with the laws and practices of the countries in which the product is sold*. This provision is a good way of limiting consumer confusion in the country importing the product, bearing in mind that consumer perception of species identity can vary widely from one country to another.

1.2.3 What then are the criteria for rejecting or accepting an additional product in a standard?

30. When evaluating the acceptability of an additional species in a Codex standard, we need to assess if the product processed from this new species has the characteristics established by the standard.

31. We have seen that the old standards defined quality criteria and considered the notion of *characteristics of the species*. In the revised standards, conformity is determined by the absence of defects likely to render the product unfit for consumption and which are not, in themselves, characteristics of the species. **The revised standards are therefore clearly far less discriminating than the old standards**.

1.3 CONSEQUENCES ON THE INCLUSION PROCEDURE

32. Taking into account the low specificity of the revised standards, the current procedure for the inclusion of additional species is slightly discriminating.

33. Under such conditions, by applying the current procedure for the inclusion of additional species and using the criteria as defined in the revised standards, there is every likelihood that we could include in the list of sardine-type species most species belonging to the *Clupeidae* family, or indeed the *Clupeiformes* order or even more distant small fish species, such as the capelin. Or again, without even the need for a sensory evaluation, it is hard to see how *Allothunnus fallai* or *Orcynopsis unicolor* or other species of the *Scombridae* family could be refused inclusion under the standard for canned tuna and bonito. The same reasoning can probably be applied to salmonids. This potential proliferation of sardine-type products, tuna and bonito increases the risk of confusion over names.

34. Once the taxonomic information has been checked, and in the knowledge that the fishery resource can be commercially exploited and that the product is suitable for recognized preparation and processing, there is little chance that the laboratory sensory evaluation will result in product non-conformity, unless it is spoiled or presents major defects.

35. The importance of taxonomic criteria can be illustrated by the request made in 1996 for species of the *Galatheidae* family to be included in the standard for quick frozen shrimps or prawns. The Committee felt that these crustaceans were more closely associated with the standard for quick frozen lobsters, a position it adopted on the basis of considerations that were more biological than qualitative, and because shrimps represent a relatively uniform and clearly identifiable group.

36. The inclusion of *Galatheidae* in the standard for quick frozen shrimps or prawns did in fact present a risk of confusion over product name. Their inclusion in the standard for quick frozen lobsters would carry less risk as this standard requires distinct product names for the different families included in its scope.

37. We therefore need to question the effectiveness of the current procedure for the inclusion of additional species. It is absolutely necessary to improve it and to propose effective and relevant criteria and also to allow to avoid the risks of confusion that now exist in the Codex standards for fish and fishery products qualified above as specific.

2 Proposals to improve the inclusion procedure

38. The current inclusion procedure can be improved and updated taking into account scientific, technical and methodological evolutions of the fields treated in the document CL 1995/30-FFP. The objective is to revise this procedure and especially the principal elements linked to the authenticity and the sensory evaluation of the products.

2.1 The issue related to the "risk of confusion"

39. This question concerns a priori only the standards that were qualified as specific. Indeed, in spite of the criteria which will be formulated hereafter, after their implementation, a risk of confusion for the consumer still exist within the framework of these specific standards.

40. We have seen (cf. 1.2.2) that the presence in the standard for canned sardines and sardine-type products of species such as herring or sprat can cause confusion, given that these products are referred to as “X sardine” when canned, but “herring” or “sprat” when salted.

41. **The inclusion procedure should discard species likely to have different names according to type of product and covering standards**. Suppose, for example, that a request is made to include the Pacific herring *Clupea pallasii* in the standard for salted herrings and sprats and in the standard for canned sardines and sardine-type products. It would be in principle reasonable to include this species in the standard for salted herrings and sprats, given that the more usual name for this fish is indeed "herring", which coincides with the title of the standard. It would be wiser however to retain the same name when this species is canned

42. So, the procedure for the inclusion of additional species in a standard should, independently from the requirements developed hereafter, include a step of examination of the data which justify the absence of confusion for the consumer. A solution, that was found in a simple way by the Committee in different standards, was to plan that the name of the product is the one used in accordance with the laws and practices

of the country in which the product is sold. Such a measure avoids the technological improvement in the field of processed fishery products to be slowed down while guaranteeing a fair information of the consumer.

43. Let's examine now the proposed criteria.

2.2 CRITERIA LINKED TO TAXONOMIC AND SPECIES AUTHENTICATION INFORMATION

44. **The species proposed for the inclusion in a Codex standard should be identifiable**. The taxonomic information required in the current procedure (cf. 1.1) are essential to locate the species in the classification, but not sufficient.

45. In addition to the scientific name, information allowing the species identification and therefore ensuring product authenticity, need to be provided.

46. With the prospect of growing international trade of fishery products and of increasing number of potentially species that can be processed and marketed, it is essential to dispose of the information necessary to product identification, and also of the methods to verify their authenticity. This information should be provided when a new species is proposed to the inclusion in a standard, and this information should allow to identify products which could have undergone intense technological treatments.

47. Recent molecular biology works allow, from the analysis of DNA nucleotide sequences, to identify species, and even subspecies, in the composition of processed products and this, independently of the processing technologies and the product presentation.

48. **Therefore, the country, wishing to include a new species in a standard, should provide, in addition to the relevant taxonomic information, reliable references concerning the DNA sequence (including its intraspecific variation) in order to ensure the identification and to guarantee the authenticity of the products covered by the relevant Codex standard.** The references to provide could be scientific publications associated with DNA sequences filed in international data banks.

2.3 CRITERIA LINKED TO BIOLOGICAL AND ECONOMICAL INFORMATION

49. The biological information linked to the resources and the economical information required in the current procedure (cf. 1.1) are essential, but not sufficient.

50. The current procedure could be modified to take into account some "principles for responsible fisheries and responsible activities linked to fisheries". The procedure should take into account all relevant biological, technological, economical, social, environmental and commercial aspects, which can be linked with other international tools (United Nations Convention on the law of the sea, Agenda 21,Code of Conduct For Responsible Fisheries – FAO).

51. The economical criteria must be based on commercial history and the real participation in the international trade of the products candidate to the inclusion in the standard (production and consumption volume in each country, volume and structure of the exchanges between countries, international commercial potential, in particular for developing countries, …).

2.4 CRITERIA LINKED TO TECHNOLOGICAL INFORMATION

52. The technological information required in the current procedure are sufficient: form in which the product will be marketed, processing technologies for each form of presentation.

53. The supply of product samples for each form of presentation is necessary for the sensory evaluation (cf. 2.5).

2.5 CRITERIA LINKED TO SENSORY EVALUATION

54. The current procedure envisages the analysis by at least three laboratories nominated by the Committee, of the products processed from the species proposed for the inclusion for the purpose of comparison with products derived from species already included in the relevant standard.

55. Document CL 1995/30-FFP also specifies that "to develop such a procedure, the Committee should appoint a Working Group on this subject, which shall formulate criteria and parameters, as well as scoring systems, to be used by the laboratories nominated by the Committee in the evaluation of new species and products derived therefrom. The nominated laboratories shall reflect as far as possible the different world regional criteria for acceptance and the interests involved".

56. This proposal of the Committee does not appear to have been acted upon, and the sensory evaluation criteria were never precisely defined.

57. It is essential that the Committee nominates officially the laboratories which will perform the sensory evaluation and gives them a precise mandate.

58. On the concerned issue, the main objective of the sensory evaluation is to assess if the product processed from the new species has a similar quality level and has the characteristics of the species already covered by the standard.

59. As it was shown before (cf. 1.2.1 and 1.2.3), the notion of "characteristics of the species" is essential to distinguish between products. It is therefore essential that the Committee define these characteristics for each Codex standard for fish and fishery products in which a new species is proposed for the inclusion.

60. As an analytical method, the sensory evaluation is sensitive to the environment. Experience shows that the conditions in which tests are organised and performed (sample quality, mode of presentation, duration, temperature, premises, …) have a great influence on the quality of the results.

61. Without these information in the current procedure, it is therefore useful to precise the conditions of such an analysis to ensure the repeatability and the reproducibility. Consequently, methods need to be fixed and also the conditions, with which the persons, the premises, the equipment and the samples must comply, need to be defined. This work can be based on the guidelines for the sensory evaluation of fish and shellfish in laboratories (CAC-GL 31-1999). Indeed, the recommendations formulated for premises, preparation of samples and qualifications of assessors can be applied to the comparative sensory evaluation required by the inclusion procedure.

62. The procedure does not describe the sensory evaluation method to be used by the laboratories designated by the Committee. Until now, assessment has been done by experienced persons with a sound understanding of the characteristics of the products concerned. It would be useful to specify the conditions of this evaluation, for example the presentation of unidentified samples to the assessment panel (blind assessment), which might seem obvious but should nevertheless be spelled out.

63. In the context of a revision of the inclusion procedure by the Committee, the elements mentioned above imply a thought on the methods to consider. The Committee should define: the sampling conditions, the general testing conditions, the testing procedure and the modalities of expression and interpretation of the results.

Conclusion

64. We have shown that, taking into account the evolution of the revised Codex standards, the diminution of their specificity and the risks of confusion in the specific Codex standards that were generated, the current procedure for the inclusion of additional species must be globally improved and it is necessary to refine its low discriminating capacity for the specific standards.

65. We proposed then to complete the current procedure by insisting on the product quality criteria, but also on the viability of the international exchanges on the basis of a sustainable exploitation of the resource, and on a specific step related to the "risk of confusion" for the specific standards, in order to obtain an effective inclusion procedure which achieve its objective.

66. An improved inclusion procedure is then essential, but not sufficient. Indeed, to comply with the two objectives of the Codex standards which are protecting consumers' health and ensuring fair practices in the international food trade, it is necessary that the Codex standards contain requirements to ensure for the consumer a sound and wholesome foods, correctly labelled and presented.

67. Given the huge variety of species of fish, molluscs and shellfish that can be traded internationally and the enormous diversity of appellations among countries, the name of a product must be clearly identifiable with the species used for its manufacture. Consumer perception of species identity can vary so much from one country to another that **the use of the common or usual name used in the country where the product is sold appears to be one way of avoiding confusion in the mind of the consumer.**