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COMMITTEE ON FISHERIES

SUB-COMMITTEE ON FISH TRADE

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TRACEABILITY AND LABELLING IN FISH TRADE

EXECUTIVE SUMMARY

This document reports on developments related to traceability systems for fish and fish products that have occurred since the ninth session of the Sub-Committee on Fish Trade. The document also focuses on regulatory traceability requirements related to safety and security. The training activities of FAO in the field of traceability of fish and fish products are briefly reviewed.The Sub-Committee is invited to take note of the information provided and contribute additional experience. It is requested to provide guidance for future work of FAO in the area of traceability of fish and fish products, in particular regarding traceability in international fish trade.

INTRODUCTION

1. Traceability is not new to the fish and food industry. Fresh fish is a highly perishable product and traceability systems have been utilized systematically in the fishery industry. The traceability concept has also been included, explicitly or implicitly, for food safety purposes in several fish and fish product regulations for many years, in particular since the introduction of HACCP-based regulations.

2. *External* traceability systems for food chains have been developed during recent decades and introduced world wide. In the case of fisheries they are a result of the expansion of international fish trade and, more recently, the growth of fish retailing in food supermarket chains. *External traceability*, refers to systems aimed to allow the traceability of a product and/or attribute(s) of that product through the successive stages of the distribution chain (boat/fish-farm to table).

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3. *Internal traceability* refers to the traceability of raw materials, intermediate and final products within a productive or commercial unit (e.g. within a fish plant). Internal traceability systems are also aimed at productivity improvement and cost reduction.

4. "Traceability" can be related to regulatory requirements, implemented on a voluntary basis or be commercial in nature. As a result, the word "traceability" is associated with an increasing number of purposes and objectives, with reference to different attributes (or information) to be traced, as well as to different standards to encode and recover information.

5. Not all "traceability" systems are equivalent and/or interchangeable. Nor can they necessarily be consolidated. Different purposes and systems also trigger different expectations in producers and consumers that do not always correspond to the traceability system in use (regulatory, contractual or voluntary). This partially explains the current uncertainty related to "traceability" requirements and to the possible implications of traceability regulations. Table 1 presents the most common traceability systems. The Table includes purposes and objectives, and presents some examples.

Table 1. Traceability, purpose, objectives, attributes to trace, type of requirement for traceability and examples (regulations and standards).

Purpose	Objective	Attributes	Standard	Example
Safety	Consumer protection (through recall and withdrawal)	Specified in food & fish safety regulations	Mandatory	EU regulation
			Voluntary (1)	USA regulation
Security	Prevention of criminal actions (through verifiable identification and deterrence)	Specified in security regulations	Regulatory (2)	USA Prevention of Bio-terrorism, regulation
		Verification of selected attributes on package and/or food	Voluntary (no common standard)	Brand & product protection
Regulatory Quality	Consumer assurance (through recall and withdrawal)	Specific attributes included in regulations	Regulatory (3)	EC labelling, mandatory consumer information.
Non-regulatory quality & Marketing	Creation and maintenance of credence attributes	Specific attributes included in public standards	Voluntary (common standard) (4)	Public Quality seals (e.g. Label Rouge, France) Organic fish, Eco-labelling
Food chain trade & logistics management	Food chain uniformity & improved logistics	Specific attributes required to food and services suppliers by contract	Private standards (4)	Own traceability systems (e.g. Wal-Mart)
			Public standards for encoding information	EAN.UCC 128 (5) (e.g. with TRACEFISH (6) standard) SSCC (7)
Plant Management	Productivity improvement and costs reduction	Internal logistics and link to specific attributes	Voluntary (internal traceability; own or public standards)	From simple to complex IT systems.

(1) Recall and withdrawal can become compulsory if a responsible company does not take action.
(2) Includes the possibility of mandatory disposal, recall and withdrawal, legal and police actions but primary purpose is prevention.
(3) Includes the possibility of mandatory disposal, recall and withdrawal and administrative actions, but primary purpose is consumer assurance.
(4) Could include voluntary (contractual) recall and withdrawal and agreed (contractual) sanctions.
(5) EAN.UCC (European Article Numbering.Uniform Code Council) System standardizes bar codes (http://www.ean-ucc.org/)
(6) TRACEFISH, "Traceability of Fish Products" (EC funded project) http://www.tracefish.org/
(7) SSCC : Serial Shipping Container Code (UCC)

6. Traceability systems can be complex. They generally include more than one objective. In addition, the authentication of traceability system usually rests with different "authorities". A given product may also be subject at different stages of the chain to different "traceability" systems. For instance, it is possible that the harvester of raw fish adheres to a voluntary traceability system related to sustainable fisheries exploitation. Industry producers may adhere to quality seal requirements. The fish can then be processed and canned (subject to internal traceability system/ production and trade management) and packed in pallets (external traceability system/ production and trade management) for distribution. In addition to these different "traceability" systems, the product may then be subject to regulatory safety (and or security) traceability requirements.

7. Traceability for safety purposes, coupled with withdrawal and recall, is a last resort risk management tool to use when HACCP measures, hygiene plans, or other food controls have failed in some way.

8. Regulatory traceability, coupled with withdrawal and/ or recall, is utilized when *it is found* that a given food poses or may pose a real public health risk to consumers, or is breaching some regulatory quality requirement. To contribute effectively to risk mitigation a traceability system should be coupled with effective withdrawal and recall plans. The effectiveness of withdrawal and recall systems depends in the first place on the completeness and reliability of the information gathered by the traceability system. Therefore, regulatory traceability for safety purposes should be considered jointly with regulatory withdrawal and recall procedures requirements.

9. Despite the noticeable development of traceability systems some important questions remain open, particularly at the level of international food and fish trade. Principles on food traceability have not been formally approved by the Codex Alimentarius Commission. This creates difficulties in establishing whether traceability requirements are consistent with the provisions contained in WTO Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) agreements. In turn, traceability requirements at the level of contractual import requirements are sometimes confusing, due to the large number of systems referring to "traceability". In the case of primary production in fisheries, an important question is how artisanal and small exploitations (e.g. small fish ponds) can cope with regulatory and contractual traceability requirements.

10. In the case of food outbreaks traceability systems can potentially provide information relevant to liability. Despite the fact that in most countries liability related to food outbreaks are determined through legal procedures, the food and fish industry may be concerned that the direct assignation of such liability will be established through a traceability regulation. Traceability could also be seen as a potential threat to commercial confidentiality, particularly by those involved in the food chain, mostly if information is publicly accessible[1].

11. Noticeable developments in food logistics supported by more refined traceability systems have appeared in the last 20-25 years. Today these are seen as an integral component of the modern food distribution system, leading to efficiencies that translate into lower prices paid by the final consumer.

12. These improvements in the food and fish supply chains are also apparent in large cities of developing countries. This is a positive development towards world food security. Developing countries have also benefited from the improvement in traceability associated with logistics which has contributed to the expansion of the international fish market during the last decades.

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[1] A possible interpretation of current traceability regulations (e.g. information required), particularly in developed countries, could be that in addition to the requirement to keep records of information, they create a legal right for the inspection services (competent authorities) to access the information.

DEFINITION AND CONCEPTS ON TRACEABILITY IN THE CODEX ALIMENTARIUS

13. Traceability/product tracing is defined by the Codex Alimentarius Commission (CAC) as: "*the ability to follow the movement of a food through specified stage(s) of production, processing and distribution*"[2].

14. As it is formulated the current CAC traceability definition fits all the purposes listed in Table 1. The CAC definition of traceability refers to *external* traceability. However, as in most cases, external traceability is not possible without some degree of internal traceability. The CAC definition therefore implies some degree of *internal* traceability too.

15. In the same way, as traceability is linked also to the movement between two different stages of a fish chain, the definition could also refer to the traceability of pallets, cartons, and units (within the cartons) as they are transformed from one product to the next. This is particularly the case when the transport and/or the intermediate storage is performed by a third party.

16. This is the only formal food traceability definition currently included in the Codex Alimentarius. However, as the definition is so general, it is of limited use when determining whether specific traceability requirements are consistent with the SPS agreement.

17. The 14th Session of the Codex Committee on Food Import and Export Inspection and Certification System (Melbourne, Australia, 28 November - 2 December 2005) proposed a draft on "Principles for traceability/ product tracing as a tool within a food import and export inspection and certification system". The document[3] will be considered at the 29th Session of the CAC that will be held in Rome, Italy from 3 to 8 July 2006.

REGULATORY TRACEABILITY FOR FISH AND FISH PRODUCTS

18. For many years, some countries have employed special regulations for shellfish that include traceability, such as the US National Shellfish Sanitation Program[4]. A similar de facto traceability system for live bivalves is included in the EC Council Directive 91/492/EEC[5].

19. The concept of traceability in EU regulations for fish and fish products also appears explicitly in Commission Regulation (EC) No 2065/2001[6] with reference to labelling information.

20. The USA Public Health and Bioterrorism Preparedness and Response Act introduced a de facto mandatory traceability system, requiring the creation and maintenance of records to determine the immediate previous sources and the immediate subsequent recipients of foods[7].

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[2] Report of the 27th Session Joint FAO/WHO Food Standards Programme. Codex Alimentarius Commission. Geneva, Switzerland, 28 June- 3 July 2004. Paragraph 17-20.

[3] The proposed text can be found at: http://www.codexalimentarius.net/web/archives.jsp?lang=en (Reports ALINORM 06/29/30 Codex Committee on Food Import and Export Inspection and Certification System).

[4] National Shellfish Sanitation Program. < http://www.cfsan.fda.gov/~ear/nss2-toc.html >

[5] Council Directive 91/492/EEC of 15 July 1991 laying down the health conditions for the production and the placing on the market of live bivalve molluscs (as amended). In particular see requirements in Chapter II-6 of the Annex.

[6] "Commission Regulation (EC) No 2065/2001 of 22 October 2001 laying down detailed rules for the application of Council Regulation (EC) No 104/2000 as regards informing consumers about fishery and aquaculture products" Chapter III. Traceability and control. Art 8

[7] Public Health Security and Bioterrorism Preparedness and Response Act of 2002. <http://www.cfsan.fda.gov/list.html >

21. The European Union introduced a horizontal (all types of foods) traceability requirement in its Regulation (EC) No 178/ 2002, in force since 1st January 2005[8]. The EU Commission defines traceability as: "*the possibility to find and follow the trace, throughout all the stages of production, processing and distribution of a foodstuff, feedstuff, an animal destined for food production or a substance destined to be incorporated in foodstuff or feedstuff or with a probability of being used as such*".[9] Noticeably the definition of the EU Commission requires traceability not only of food as such but also of feedstuff, animals destined for food production or substances to be incorporated into food.

22. The information required for traceability purposes, in relation with Regulation (EC) No 178/2002, according with the "Traceability Guidance"[10], can be divided in two groups: "The first category of information includes any information which *shall be made available* to the competent Authorities in all cases:

-Name, address of supplier, nature of products which were supplied from him.

-Name, address of customer, nature of products that were delivered to that customer.

-Date of transaction/ delivery".

23. "The second category of information includes additional information which is highly recommended to be kept: Volume or quantity; and Batch number if any. More detailed description of the product (pre-packed or bulk product; raw or processed product)."

24. Regulatory traceability requires record-keeping known as "one step forward and one step back" as the primary means to ensure traceability related to food safety and quality. Detailed traceability requirements depend on specific regulations and the *modus operandi* of regulations in force. It should be kept in mind that traceability, and in particular, withdrawal and recall are not new regulatory tools.

25. No new regulations regarding traceability of fish and fish products have been implemented since the Ninth Session of the COFI:FT. However, implementation of Regulation (EC) No 178/ 2002, in particular the articles on food traceability, were initiated. New documents, discussions, conceptual developments, and some official (non regulatory) documents on food traceability have been developed. Of particular importance is the: "Guidance on the implementation of articles 11, 12, 16, 17, 18, 19 and 20 of Regulation (EC) No 178/ 2002 on General Food Law" from the EU Standing Committee on the Food Chain and Animal Health. This is an informal document that should be read in conjunction with Regulation EC No 178/ 2002 with reference to interpretations on traceability, withdrawal and recall.

IMPLEMENTATION OF REGULATORY TRACEABILITY AT INTERNATIONAL LEVEL

26. Implementation of regulatory traceability at the international level has proceeded since the Ninth Session of COFI:FT. However, some areas remain unclear for fish inspection services (competent authorities) and exporters in developing countries.

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[8] Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety. Official Journal L 031, 01/02/2002 P. 0001 – 0024.

[9] Art. 3. Regulation (EU) No 178/ 2002 of the European Parliament and the Council of 28 January 2002.

[10] "Guidance on the implementation of articles 11, 12, 16, 17, 18, 19 and 20 of Regulation (EC) No 178/ 2002 on General Food Law". Conclusions of the Standing Committee on the Food Chain and Animal Health. 20 December 2004. http://europa.eu.int/comm/food/food/foodlaw/guidance/guidance_rev_7_en.pdf .

27. The traceability requirements of the US Public Health and Bioterrorism Preparedness and Response Act, must be met in order to access the USA market. However, whereas the traceability of each shipment between the exporter and its entry in the USA is effectively traced, "*there is no authority for the FDA to give extraterritorial effect to record-keeping rules*"[11].

28. The "Guidance on the implementation of articles 11, 12, 16, 17, 18, 19 and 20 of Regulation (EC) No 178/ 2002 on General Food Law" from the EU (see footnote 7) specifically states[12] that: "*The traceability provisions of the Regulation do not have an extra-territorial effect outside the EU*[13]. *This requirement covers all stages of production, processing and distribution in the EU, namely from the importer up to the retail level*" (idem footnote 9). Additionally the document notes that: "*Article 11 should not be constructed as extending the traceability requirement to food business operators in third countries. It requires that food/ feed imported into the Community complies with the relevant requirements (idem footnote 9) of EU food law.*" Furthermore: "*Exporters in trading partner countries are not legally required* (idem footnote 9) *to fulfil the traceability requirement imposed within the EU (except in circumstances where there are special bilateral agreements for certain sensitive sectors or where there are specific Community legal requirements, for example in the veterinary sector)*". The position of the EU regarding the application of the regulations of one country in other country is consistent with the position expressed in other documents published by the EU on similar situations[14]; particularly the **in absence of "special bilateral agreements"**.

29. Since the import of fish and fish products in the EU is regulated through "special bilateral agreements", EU fish inspectors in third countries may ask for proof of traceability in relation to fish safety, consistently with regulations including traceability provisions[15] or with reference to Regulation (EC) No 178/ 2002[16].

30. International trade is subject to *logistic traceability agreements*. For instance fish shipments require a specific Serial Shipping Container Code (SSCC) that assures its traceability at intermediary and final destinations.

31. In addition, there are situations that require traceability systems that cover the whole fish distribution chain, regardless of whether the food chain includes second and third countries. An example of this type, is the export of a value added product (e.g. from a third country to the EU) where the lot number in the final package is assigned by the producer. Another special case is when products are exported to second and third countries (e.g. for processing) for eventual re-import to the country of origin.

32. Importers in the EU are increasingly asking suppliers from third countries to provide evidence of the implementation of traceability systems of their fish and fish products. The document "Guidance on the implementation of articles 11, 12, 16, 17, 18, 19 and 20 of Regulation (EC) No 178/ 2002 on General Food Law" states that: "It is common practice among some EU

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[11] "Comments sent by the European Commission on implementing rule of US Bioterrorism Act" of 8 July 2003. http://europa.eu.int/comm/food/international/trade/reg_food_fac_en.pdf .

[12] Page 11 of the document: "iii) Applicability to third country exporters (in connection with Article 11)".

[13] Underlined in the original.

[14] See for instance Ref. 8.

[15] See for instance: Points "2.1.7 Traceability" and 5.1 (12) of the "Report of a mission carried out in South Korea from 8 to 18 March 2005 concerning the conditions of production and export of bivalve molluscs, fish and fishery products to the European Union" DG (SANCO)/ 7558/ 2005 – MR final. Food and Veterinary Office (FVO) 03/11/05 – 34043.

[16] In the FVO mission reports (fish and fish products) to third countries, there is usually a list of the EU regulations (acts) on which the mission based its audit work. The Regulation (EC) No 178/ 2002 has not been listed so far, as legal basis for missions to third countries in reports published during 2005.

food business operators to request trading partners to meet the traceability requirements and even beyond the "one step back-one step forward" principle. However, it should be noted that such requests are part of the food business's contractual agreements and not of requirements established by the Regulation" (underlined in the original).

33. Bilateral agreement between the fish exporter and the fish importer can overcome legal and practical problems in terms of traceability. This type of agreement can clarify minimum traceability requirements, both to the industry and fish inspection services. They can also assign a clear role to the inspection services (competent authorities) in exporting countries. This also allows fish exporters to differentiate more easily between regulatory requirements and non regulatory traceability requirements.

34. From the point of view of consumer protection, clear bilateral agreements including traceability of fish and fish products, will allow more targeted recalls in the case of recall and withdrawal and result in more effective action. Furthermore, safety, security and regulatory quality requirements will not risk being confused in practice with non-regulatory, trade or marketing traceability requirements.

TRACEABILITY, WITHDRAWAL, RECALL AND HACCP

35. The concept of internal traceability is implicit in all HACCP-based regulations. For instance, it is not possible to implement targeted corrective actions on production without a traceability system that identifies the faulty production lots[17].

36. Withdrawal is required when the HACCP verification system identifies a problem before goods are delivered to consumers. Recall is required when both the safety system and *the verification steps* have failed to detect the faulty food, and some of the food is already available at the retail level. Withdrawal and recall co-exist in practice.

37. The faulty condition of food can be due to a hazard not considered in the HACCP plan or in monitoring plans, or to problems in labelling (regulatory quality). Therefore the traceability system (and associated withdrawal and recall plans) *should not be taken as a substitute for verification*, or a remedy for the lack of verification (routine verification and HACCP audit), within the HACCP system.

38. At the plant level, each procedure of withdrawal and/ or recall should be complemented with, at a minimum, a partial HACCP audit. The final objective is consumer protection. The recovery of faulty products from the market is an immediate objective. Of equal importance is the need to identify and solve the causes of the problem(s) that led to the withdrawal/ recall measures.

39. The aspects discussed briefly in this section clarify the relationship between different regulatory food risk management tools. Traceability for food and fish safety purposes should generally be kept separate from "traceabilities" with different objectives. This will avoid, insofar as possible, any confusion or misunderstanding.

[17] This type of traceability (sample traceability) with reference to current HACCP-based regulations *may* be checked by EU and FDA fish inspectors visiting exporting countries. See for example: "Final report of a mission carried out in Ukraine from 6 to 14 June 2005 for the assessment of the conditions of production of fishery products intended to be exported to the European Union" DG(SANCO)/7580/2005 – MR final – FVO 24/10/05 21519. http://europa.eu.int/comm/food/fvo/act_getPDF.cfm?PDF_ID=4841

FAO TRAINING ACTIVITIES ON TRACEABILITY OF FISH AND FISH PRODUCTS

40. During the Ninth Session of the Sub-Committee on Fish Trade many developing countries and countries in transition requested FAO to provide technical assistance in the field of traceability of fish and fish products[18]. A number of workshops and seminars were held to provide practical technical advice.

41. In association with EUROFISH and the national fish inspection services, workshops were conducted in the respective countries on "Introduction to the traceability of fish and fish products" in Bulgaria (Burgas, 25-29 October 2004); Romania (Braila, 17-23 April 2005) and Lithuania (Klaipeda, 27 February- 3 March 2006)[19].

42. In association with INFOPESCA and the National Fish Inspection Service a regional seminar was conducted on "Introduction to the traceability of fish and fish products" in Argentina (Mar del Plata, 23-24 May 2004). There were participants from the following countries: Argentina, Brazil, Canada, Chile, Costa Rica, Cuba, Ecuador, Honduras, Mexico, Panama, Peru, Uruguay, and Venezuela. This Seminar was funded from the FAO (FIIU) Regular Programme budget.

43. In association with INFOSAMAK and the Agronomic Mediterranean Institute of Zaragoza (IAMZ) of the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) a course was conducted "Advanced Course on Traceability of Fish and Fish Products: Technologies and Management Systems" in Spain (Zaragoza, 17-21 October 2005). There were participants from the following countries: Albania, Algeria, Croatia, Cyprus, Egypt, France, Italy, Morocco, Spain, Tunisia and Turkey[20].

44. In association with INFOFISH and the Marine Products Export Development Authority (MPEDA) of India a workshop was conducted on "Introduction to the traceability of fish and fish products" (Chennai, 12-14 December 2005). This workshop was carried out under the FAO project TCP/ RAS/3011; "Regional program for strengthening national capabilities in seafood trade policy, including risk assessment and traceability". This project will conduct other training activities on the same subject in the region during 2006.

45. A total of 257 professionals from the fish inspection services, industry and universities and Research and Development centres, from 28 developing countries and countries in transition have received training on traceability of fish and fish products during this period. In all but one of the activities practical works were conducted in actual plants and fish ponds related to traceability with fish safety purposes. Training has been aimed to assist the industry to develop traceability systems to comply with regulatory requirements of traceability for safety purposes. Particular effort has been made in practical work to utilize records existing at plant level to avoid multiple records and reduce the economic burden. During the same period presentations on traceability of fish and fish products were made at various international meetings (Vietnam 2004, Argentina 2005 and Tanzania 2005). All those activities identified actual needs at the industry level and clarified traceability requirements.

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[18] FAO Fisheries Report No 736 [FIIU/R 736 (Tri)], numeral 36 p. 10.

[19] In addition to FAO (FIIU) RP and EUROFISH funds; for the workshops in Bulgaria and Romania there were funds from the Swiss Import Promotion Programme (SIPPO) and in the case of Lithuania there were funds from the Norwegian Assistance Agency (NORAD).

[20] In addition to FAO (FIIU) RP funds, there were funds from the Spanish International Aid and from the EU through IAMZ and CIHEAM. There was the support

SUGGESTED ACTION BY THE SUB-COMMITTEE

46. The Sub-Committee is invited to take note of the information provided and contribute additional experience. It is requested to provide guidance for future work of FAO in the area of traceability of fish and fish products, in particular regarding traceability in international fish trade.