CODEX ALIMENTARIUS COMMISSION



Food and Agriculture Organization of the United Nations



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CL 2020/28/OCS-CAC Rev.1 March 2020

- TO: Codex Contact Points Contact Points of international organizations having observer status with Codex
- FROM: Secretariat, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme
- SUBJECT: Request for comments on the Proposed Amendment of the Standard for Canned Sardines and Sardine-Type Products (CXS 94-1981)
- DEADLINE: 31 May 2020

BACKGROUND: For information, please refer to Annex I, II and the Appendix to the present CL.

INTRODUCTION

A project document for a proposed amendment of *Standard for Canned Sardines and Sardine-Type Products* (CXS 94-1981) to include the fish species *Sardinella lemuru* (Bali Sardinella) under Section 2.1 has been submitted by the Philippines to the Codex Secretariat (see Appendix).

This work falls under the mandate of Codex Committee on Fish and Fishery Products (CCFFP). As CCFFP has been adjourned *sine die* since CAC39 (2016), the Codex secretariat and the Host Secretariat can make proposals related to substantive amendments and issue Circular Letters accordingly¹.

The Codex Secretariat has discussed the proposal with the Host Secretariat for CCFFP, Norway. The project document is considered complete. The proposal fulfills the necessary requirements in the Procedural Manual as set out in the *Criteria for the Establishment of Work Priorities*, the *Guide to the Procedure for the Amendment and Revision of Codex Standards and Related Texts* and section 2.1 of the *Procedure for the Inclusion of Additional Species in Codex Standards for Fish and Fishery Products* (see Annex II).

REQUEST FOR COMMENTS

- 1. Using the general comments feature, firstly views are requested on the following aspects taking into account the *Procedure for the Inclusion of Additional Species in Codex Standards for Fish and Fishery Products* (Codex Procedural Manual):
 - i. whether Codex should pursue this <u>new</u> work on amending the *Standard for Canned Sardines* and *Sardine-Type Products* (CXS 94-1981) with a view to include *S. lemuru*; and
 - ii. whether the *new* work, if approved by CAC, could be undertaken electronically.
- 2. In case the reply to 1.i. is affirmative, general and specific comments are invited on the *Proposed Amendment of the Standard for Canned Sardines and Sardine-Type Products (CXS 94-1981*), which is uploaded to the Codex Online Commenting System (OCS): https://ocs.codexalimentarius.org/, as per the guidance below.

GUIDANCE ON THE PROVISION OF COMMENTS

- 3. Comments should be submitted through the Codex Contact Points of Codex members and observers using the OCS.
- 4. Contact Points of Codex members and observers may login to the OCS and access the document open for comments by selecting "Enter" in the "My reviews" page, available after login to the system.
- 5. Contact Points of Codex members and observer organizations are requested to provide proposed changes and relevant comments/justifications on a specific paragraph (under the categories: editorial,

¹ According to the *Guide to the Procedure for the Amendment and Revision of Codex Standards and Related Texts*, where Codex committees have been adjourned *sine die*, the Codex Secretariat is responsible for keeping under review its Codex standards and related texts and determine the need for any amendments.

substantive, technical and translation) and/or at the document level (general comments or summary comments). Additional guidance on the OCS comment categories and types can be found in the OCS Frequently Asked Questions (FAQs).

- 6. Other OCS resources, including the user manual and short guide, can be found at the following link: <u>http://www.fao.org/fao-who-codexalimentarius/resources/circular-letters/en/</u>.
- 7. For questions on the OCS, please contact Codex-OCS@fao.org.

Background

The Standard for Canned Sardines and Sardine-Type Products (CXS 94-1981) provides the essential quality and other requirements for canned products prepared from fresh or frozen fish of certain species as listed in section 2.1 "Product definition". The Standard was revised in 2007 to include the fish species, *Clupea bentincki* as raw material and to have the following two labelling options (i) "Sardines" (to be reserved exclusively for *Sardinapilchardus* (Walbaum)); or (ii) "X sardines" where "X " is the name of a country, a geographic area, the species, or the common name of the species, or any combination of these elements in accordance with the law and custom of the country in which the product is sold, and in a manner not to mislead the consumer.

The discussion on this inclusion prompted the Codex Committee on Fish and Fishery Products (CCFFP) to establish specific criteria for inclusion of fish species in standards related to fish and fishery products, to be applied in conjunction with the existing general criteria such as *Criteria for the Establishment of Work Priorities* and *Guide to the Procedure for the Amendment and Revision of Codex Standards and Related Texts*. The *Procedure for the Inclusion of Additional Species in Codex Standards for Fish and Fishery Products*, which stipulates the necessary information such as description of candidate species and economic data, was adopted by the 36th Session of the Codex Alimentarius Commission (CAC) in 2013 and incorporated into the Codex Procedural Manual.

ANNEX II

REVIEW OF THE PROPOSED AMENDMENT

(taking into account the *Criteria for the Establishment of Work Priorities* and the *Procedure for the Inclusion of Additional Species in Codex Standards for Fish and Fishery Products* in the Codex Procedural Manual)

(Prepared by the Codex Secretariat)

Criteria for the Establishment of Work Priorities:

(a) Volume of production and consumption in individual countries and volume and pattern of trade between countries.

According to the information provided, the share of *S. lemuru* in overall fisheries in the Philippines was 11% during the period 1997 to 2017. Most of *S. lemuru* are consumed locally with a variety of forms such as fresh, canned, dried, and fermented products, and export of canned products account for 2% of the total catch. However, since the 2000s, canned products have been increasingly exported from the Philippines. A decline in export of canned products was observed after reaching a peak in 2011 with the volume of export at around 15,500 MT valued at 23.9M USD following introduction of strict rules to restrict overfishing. However, it bottomed out in 2015 and increased again, reaching around 8000 MT and 15M USD in 2017.

No consumption data was provided in the project document. However, considering the steady growth of international trade, it is expected that there is a considerable consumption of *S. lemuru* internationally.

(b) Diversification of national legislations and apparent resultant or potential impediments to international trade.

Canned products of *S. lemuru* are traded globally, but are not recognised by all legislations as canned sardine products.

(c) International or regional market potential.

Canned S. lemuru products are traded globally among almost 58 countries.

(d) Amenability of the commodity to standardisation.

Definition of the product and composition information is essential for identification of the product. *S. lemuru* is considered amenable to standardization.

(e) Coverage of the main consumer protection and trade issues by existing or proposed general standards.

The current standard (CXS 94-1981) does not cover S. lemuru as raw material.

(f) Number of commodities which would need separate standards indicating whether raw, semiprocessed or processed.

The proposed amendment is aimed for canned products and not applicable to raw S. lemuru.

(g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies).

To our knowledge, no similar work has been undertaken or proposed by other organizations.

<u>Article 3. "Information required" of the Procedure for the Inclusion of Additional Species in Codex</u> <u>Standards for Fish and Fishery Products:</u>

(a) Candidate species description

Descriptive information on *S. lemuru* has been provided, including scientific name, morphological and anatomical characteristics, taxonomic position in relation to relevant species, and specific DNA sequence, which are derived from reliable sources including scientific literature.

(b) Economic data of the candidate species

Resources

Location of the main capture grounds and annual catches both global and regional (around the Philippines) has been presented. However, the estimate of volume of stocks present in the natural environment has not been provided.

• Processing technology and marketing

Data on processed products has been provided, including types of marketed products, main processing treatment and annual production as well as volume and value of trades in the past decades. No specific trade names have been provided.

APPENDIX

PROJECT DOCUMENT

PROPOSAL FOR THE AMENDMENT OF CODEX STANDARD FOR CANNED SARDINES AND SARDINE-TYPE PRODUCTS (CXS 94-1981): INCLUSION OF *Sardinella lemuru* (Bali Sardinella) IN THE LIST OF SARDINELLA SPECIES UNDER SEC. 2.1.1.

(Prepared by the Philippines)

1. Purpose and Scope

The purpose of the amendment is to provide the member countries and the sardine canning industry (producers and traders) a revised list of sardine-type fishes authorized for the preparation of canned sardine and sardine type products to include *Sardinella lemuru* or Bali Sardinella.

The scope of the amendment shall focus on the inclusion of *S. lemuru* in the list of sardine-type fishes authorized for the preparation of canned sardine and sardine-type products taking into account the issue on fair trade practice. Product authenticity, traceability and sustainability of the resources shall be addressed to ensure compliance of the requirements in the international markets. The proposal intends to revise Section 2.1.1 of the Codex standard for canned sardine and sardine-type products, CXS 94-1981.

2. Description of *S. lemuru*

(a) Scientific Name:

Sardinella lemuru (Bleeker, 1853) Source: www.fao.org

Synonymous to Sardinella aurita (Valenciennes 1847, Raja and Hiyama, 1969), Clupea nymphaea (Richardson, 1846, Icthyol.China Japan:304 (China Sea)(name supressed by International Commission in 1970, Opinion, Bull.Zool.Nomencl.,26(5-6):2017)., Amblygaster posterus Whitely, 1931:144 (Western Australia)., Amblygaster postera Munro, 1956:22,fig.154., Sardinella samarensis Roxas, 1934:275,pl.2, fig. 11 (Samar, the Philippines)., Sardinella longiceps) non Valenciennes 1847, Whitehead, 1965, Sardinella lemuru Wongratana, 1980:111, pls 47,48 (revision).

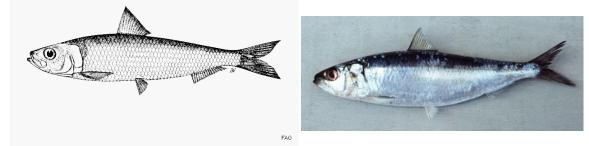


Fig. 1 Sardinella lemuru; Standard length: 23 cm, usually to 20 cm. Source: www.fishbase.org

(b) Morphological and Anatomical Characteristics:

Diagnostic features (Figure 1) include, body elongate, subcylindrical, its depth less than 30% of standard length, belly rounded. The pelvic fins count of i 8 distinguished *S. lemuru* from all other clupeids in the eastern Indian Ocean and western Pacific. Very closely resembles *Sardinella longiceps* (whose range it may overlap in the Andaman Sea), but head shorter (26 to 29% of standard length; cf.-29 to 35% in *S. longiceps* and lower gillrakers fewer (77 to 188 in fishes of 6.5 to 22 cm standard length; cf. 150 to 253 in *S. longiceps* of 8 to 15.5 cm, usually more than 180). No dark spot at dorsal fin origin; a faint golden spot behind gill opening, followed by a faint golden midlateral line; a distinct black spot at hind border of gill cover (absence of pigment).

(c) Genotype of the S. lemuru specimen collected in the Philippines, Indonesia and related species



H 0.005

Fig. 2 Neighbour - Joining Tree showing the taxonomic position of *S. lemuru*; Source: Willette and Santos (2012)

Figure 2 shows the taxonomic identification of *S. lemuru* collected in the Philippines and Indonesia (Bali) in relation to other sardine species using DNA analysis (Willette and Santos, 2012). Sardine species used for comparison are listed under Sec 2.1.1 CXS 94-1981, namely, *S. aurita*, *S. gibbosa* and *S. longiceps*

Sardinella lemuru collected from various fishing grounds in the Philippines and Bali, Indonesia formed a separate cluster when subjected to phylogenetic analysis thus demonstrating phylogenetic divergence in relation to the other sardine species.

(d) Specific DNA Sequence of S. lemuru from the Philippines

All DNA sequences of *S. lemuru* found in the Philippines were archived at Gen Bank (Accession numbers JQ818230-JQ818251)3.

>JQ818230.1 Sardinella lemuru isolate Negros_1 cytochrome b (cytb) gene, partial cds; mitochondrial

3. Economic Data of S. lemuru

3.1 Resources

(a) Location of the Main Capture Grounds of S. lemuru

Global distribution of *S. lemuru* (Figure 3) is observed in the coast of Eastern Indian Ocean (Phuket, Thailand, southern coast of east Java and Ball; Western Australia) and Western Pacific (Java Sea north to the Philippines, Hongkong, Taiwan Island to southern Japan).

In the Philippines, *S. lemuru* occurs in high abundance across and beyond productive coastal areas or upwelling regions in the country. Shoal of the species is found in coastal water over continental shelf where depth is less than 200 m. Distribution patterns are primarily concentrated in the central Visayan water bodies, southern coast of Luzon, and around the islands in Mindanao and Palawan.



Fig. 3 Global Distribution of S. lemuru as reported by FAO



Fig. 4 Distribution of of Sardinella lemuru in Philippine fishing grounds; Source: Willette et al. (2011)

(b) Annual Production of S. lemuru

Global production of *S. lemuru* from 1950 to 2017 (Figure 5). In the East China Sea there was a total production of 100, 000 MT in 1971 and in Indonesia a total production of 59, 980 MT was recorded in 1983. The total production reported for FAO Statistics in 1999 was 161, 470 t (all from Indonesia)

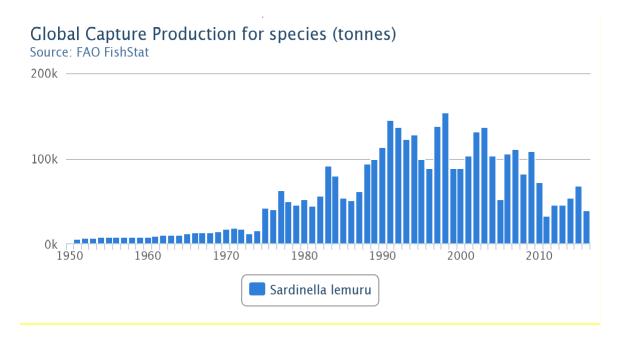


Fig. 5 Global production of Sardinella lemuru in MT; Source: www.fao.org.

The production of *S. lemuru* in the Philippines averaged to about 229,802.62 MT or 11% of the total marine capture fisheries during 1997 to 2017 (Philippine Statistics Authority, www.psa.gov.ph). About 75% of the

total catch was contributed by commercial fisheries and 25% by municipal fisheries sector during the same period. As shown in Figure 6, there was an increasing production trend in 2004-2010. However, a sharp decline can be observed in 2011 and 2013 which is probably due to the increase in fishing pressure before stabilizing thereafter in the recent four years. Such increase in production could be attributed to the effort of the Philippine government to introduce management measures to ensure the sustainability of sardine production in the country. Specifically, a three-month per year closed fishing season particularly during the spawning months has been imposed in major sardine fishing areas such as Sulu Sea, Basilan Strait and Sibuguey Bay (Joint Administartive Order No.1, s 2011, www.bfar.da.gov.ph) and has been sustained through the Bureau of Fisheries and Aquatic Resources (BFAR) Administrative Circular No. 255, s 2014(www.bfar.da.gov.ph). In addition to the implementation of strict ordinance towards responsible fishing, the National Sardines Management Framework Plan (2019-2024) was also drafted which presents the vision, goals, objectives, benchmarks and indicator, and management actions for the next five years towards the sustainability of the sardines industry in the country.

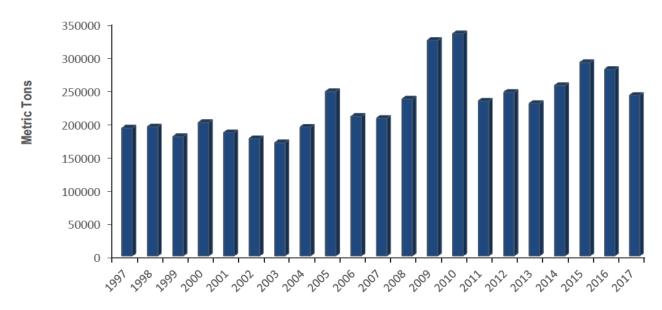


Fig. 6 Yearly catches of *Sardinella lemuru* in the Philippines for the last two decades; Data Source: Philippine Statistics Authority (www.psa.gov.ph)

3.2 Processing Technology and Marketing

(a) Processed products of canned S. lemuru

Sardinella lemuru is mainly processed for canned products in the Philippines. From 1991 to 2017, the country had exported an avarage of 5,601.35 MT or 2% of the total catch. The remaining 98% were consumed locally in the form of fresh, canned, dried and fermented products. The low production and exportation of canned *S. lemuru* could be attributed to the non-existence of the species in the international standards (e.g. Codex, EU, etc).

(b) International trade of canned S. lemuru

Canned *S. lemuru* is one of the export fishery products that has gained momentum in the international trade since 2007 (Figure 7). The product is traded in more or less 58 countries around the globe including the European Community (Figure 8). In 2011, the industry shared the highest volume of export at 15,489.39 MT valued at 23.9M USD. However, the quantity of export declined from 2012 until 2015 possibly due to the poor quality of the raw materials particularly the undesirable size of fish. The periodic fishing closure which was started in 2011 could have had an impact on the growth structure of fish such as presence of oversized fish and juveniles in the catch composition as reported by the National Stock Assessment Program (NSAP) of BFAR. However, in 2016-2017, the volume of canned *S. lemuru* exported began to recover.

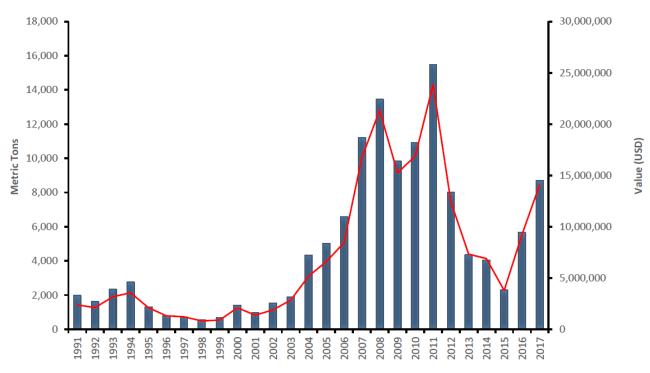


Fig. 7 Volume and value of exported canned S. lemuru in the Philippines from 1991-2018.

Data Source: Philippine Statistics Authority (www.psa.gov.ph)

Asian countries are both exporters and importers of sardines including *S. lemuru* and contibuting millions of USD in revenues per producing country (Table 1).

Table 1. Sardines and Sardinellas Trade and Production in Asian countries Source: FAO – Fisheries and Aquaculture Information and Statistics Branch - 16/08/2019

Land Area	Trade Values										
	2013		2014		2015		2016		2017		
	МТ	USD '000	МТ	USD '000	МТ	USD '000	МТ	USD '000	МТ	USD '000	
Philippines	6,714	11, 385	5,852	10, 032	3,265	5, 440	9,610	19, 372	6,782	12, 503	
China	135,893	272, 970	120,082	235, 834	87,034	173, 626	89,388	185, 953	89,050	192, 429	
Hong Kong	0	0	2	9	1	8	0	0	87	467	
Indonesia	678	1,345	886	1,436	365	336	644	860	1,257	2,446	
Japan	54,756	42, 269	13,786	12, 604	33,924	26, 278	39,086	31, 828	62,026	47, 966	
Malaysia	3,694	3, 924	1,849	1, 910	1,739	1, 846	1,843	1, 776	578	748	
Singapore	20	26	2	11	5 ^F	27 ^F	26	30	3	17	
Thailand	25,408	54, 895	15,658	33, 057	10,793	22, 327	7,821	15, 673	63,209	119, 920	
Viet Nam	7,131	13, 063	5,240 ^F	16, 525 ^F	4,865 [_]	14, 316 ^F	6,259	18, 126	5,019	16, 576	

Export

Import

Land Area	Trade Values										
	2013		2014		2015		2016		2017		
	МТ	USD '000	МТ	USD '000	МТ	USD '000	МТ	USD '000	МТ	USD '000	
Philippines	28, 597	16, 051	22, 480	12, 032	9, 046	5, 384	7, 327	4, 728	8, 348	7, 836	
China	8, 930	9, 102	4, 126	4, 782	3, 942	4, 668	7, 962	9, 113	8, 402	7, 084	
Hong Kong	1, 409	5,883	1, 629	5,904	1, 258	5,686	1, 302	6,157	1, 593	7,359	
Indonesia	47, 209	30,827	34, 489	24,292	21, 028	14,890	18, 416	11,979	44, 681	30,583	
Japan	6, 685	22,869	7, 031	23, 926	5, 055	19, 982	4, 740	20, 909	5, 317	22, 165	
Malaysia	14, 979	26, 835	18, 342	32, 344	18, 375	24, 784	18, 239	25, 935	14, 022	20, 306	
Singapore	257	429	190	280	157	271	193	344	238	384	
Thailand	135, 423	113, 333	118, 113	88, 385	96, 067	79, 377	67, 118	49, 427	98, 759	66, 020	
Viet Nam	2, 298	2, 120	4, 189 ^F	3, 868 ^F	4, 816 ^F	4, 464 ^F	3, 983	4, 067	2 421	2, 507	

Sub-total of imported sardines and sardinella products (fresh, chilled, frozen, dried, salted, smoked, minced) which may include: herring, anchovy, brisling/sprat, mackerel, Indian mackerel, seerfish, jack & horse mackerel, jack, crevalle, cobia, silver pomfret, Pacif. saury, scad, capelin.

 F = FAO estimate; data estimated from available source of information or calculation based on specific assumptions. and 0 = data not available

0 and 0- = actual null value

4. Relevance and Timeliness

Since canned *S. lemuru* has been in the global trade for decades, it is necessary that the candidate species be standardized based on the criteria of the Codex Alimentarius Commission (CAC) procedural manual (24th ed.) to avoid trade impediments. The proposed amendment of Codex Standard for canned sardine and sardine-type products is a very important reference for traded sardine-type fish.

With the special fisheries managed areas for sardines in place, catches of *S. lemuru* in the Philippines could be sustained, hence there would be substantial increase in the production of canned sardines to improve the sardine industry. The shift in consumer food preference to a more healthy fish diet will likely increase the global demand and international trade for the said commodity. The inclusion of *S. lemuru* in the Standard for Canned Sardines and Sardine-Type Products (Codex Stan 94-1981) will further reduced trade barriers or/and rejection of the product at the trade borders.

5. Main Aspects to be Covered

The proposed amendment will revise and update CXS 94-1981 - *Standard for Canned Sardines and Sardine-Type Products*. It concerns a revision of Section 2.1.1 Canned sardine or sardine type products are prepared from fresh or frozen fish of the following species: – to include **S. lemuru** under the third genus, *Sardinella:*

- Sardina pilchardus
- Sardinops melanostictus, S. neophilcardus, S. ocellatus, S. sagax, S.caeruleus,
- Sardinella aurita, S. brasiliensis, S. maderensis, S. longiceps, S. gibbosa, <u>S. lemuru</u>
- Clupea harengus
- Clupea bentincki
- Sprattus sprattus
- Hyperlopus vittatus
- Nematalosa vlaminghi
- Etrumeus teres
- Ethmidium maculatum

- Englaulis anchoita, E. mordax, E. ringens
- Opistonema oglinum

6. An Assessment against the Criteria for the Establishment of Work Priorities

The proposed amendment of Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) shall serve as a reference in minimizing potential barriers (e.g. border rejection of product) in the international trade.

General Criterion

The proposed amendment of the Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) for inclusion of *Sardinella lemuru* (Bali Sardinella) in the list of species under Section. 2.1.1. could support producers and traders in assuring product authenticity, traceability and sustainability of resources, ensuring fair practices in the food trade and taking into account the identified needs of developing countries such as the Philippines and other *S. lemuru* producing countries in the Asia Pacific region.

Criteria applicable to commodities

(a) Volume of production and value of trade pattern of trade between countries

For the last six years, the Philippines is exporting an average of 5,113 MT valued at 8,055,468.31 USD of canned *S. lemuru* to more or less 58 countries (Figure 8) across the globe including EU (www.psa.gov.ph).

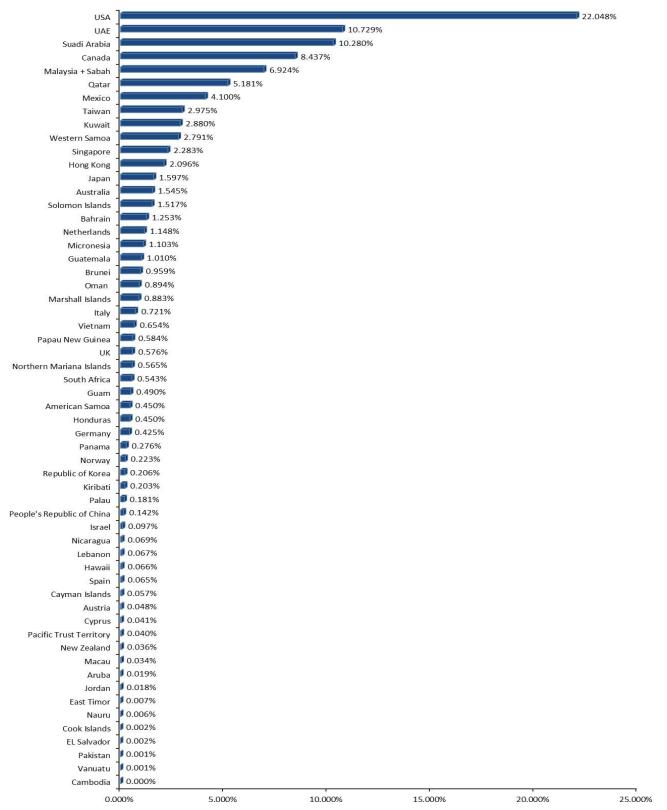


Fig. 8 Global market share of Philippine traded canned *S. lemuru* for the last six years.

Data Source: Philippine Statistics Authority (www.psa.gov.ph)

(b) Amenability of the commodity to standardization

The proposed amendment of the *Codex Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) will address trade issues among canned sardine producers and traders. The biology, fisheries and trade related information regarding *S. lemuru* have been established in the proposed amendment to ensure the authenticity and sustainability of the commodity for standardization.

(c) Coverage of the main consumer protection and trade issues by existing or proposed general standards

The proposed amendment of the Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) will address current issues (e.g. traceability) taking into account the authenticity of the product as well as the sustainability of the resource.

(d) Number of commodities which would need separate standards indicating whether raw, semi processed or processed.

The proposed amendment concerns the Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981).

(e) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies)

So far, no similar work by other international organizations has been encountered.

7. Relevance to the Codex Strategies Objectives

Goal 2: Develop standards based on science and Codex risk-analysis principles

The proposed amendment of the Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) will take into consideration the internationally recognized scientific tools applied for species identification and fish stocks assessment.

Goal 3: Increase impact through the recognition and use of Codex standards

The proposed amendment of the Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) will support the strengthening of the food control system of Codex member countries, in particular assisting the competent authority in strengthening regulatory frameworks that promote fair trade practice.

8. Information on the relation between the proposal and other existing Codex Documents

The proposed amendment will simply revise/update the Codex *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981) to include *S. lemuru* in the list of species under Section 2.1.1.

9. Identification of any requirement for and availability of expert scientific advice

None.

10. Identification of any need for technical input to the standard from external bodies, so that this can be planned for

None.

11. The proposed timeline for completion of the amendment

A period of four years is foreseen in the completion of this proposed amendment of *Standard for Canned Sardine and Sardine-Type Products* (CXS 94-1981).