



**Food and Agriculture
Organization of the
United Nations**



**World Health
Organization**

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Agenda Item 8.1

**CX/CAC 20/43/9 Add.1
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**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
Forty-third Session
PROPOSALS FOR NEW WORK¹**

A list of proposals to elaborate new standards and related texts is presented below, including the reference of the project document in the relevant report. The project documents are also compiled in this document for ease of reference and to ensure availability in all six languages.

The Commission is invited to decide whether or not to undertake new work in each case, taking into account the critical review conducted by the Executive Committee, and to decide which subsidiary body or other body should undertake the work. The Commission is invited to consider these proposals in the light of its *Strategic Plan 2020-2025* and the *Criteria for the Establishment of Work Priorities* and *Criteria for the Establishment of Subsidiary Bodies of the Codex Alimentarius Commission*.

Codex Body	Text	Reference and project document
CCNE	Proposal for the development of a regional standard for maamoul	Annex I of this document
CCFFP	Proposal for the amendment of the <i>Standard for Canned Sardines and Sardine-Type Products</i> (CXS 94-1981): inclusion of <i>Sardinella lemuru</i> (Bali Sardinella) in the list of <i>Sardinella</i> species under sec. 2.1	Annex II of this document

¹ Proposals for elaboration of new standards and related texts from CCNE and CCFFP are included in this document.

PROJECT DOCUMENT

Proposal for the Development of a Regional Standard for Maamoul

1. The purpose and scope of the standard

The purpose of this work is to develop a regional standard for Maamoul in order to facilitate trade and to provide guidance to members of the Near East Region and the Maamoul production industry on the preparation of Maamoul. This type of product is produced and consumed widely in the region. Maamoul is a highly nutrient-dense food, due to its content of dates or other fruit paste filling such as nut paste. Therefore, the need to regulate Maamoul and have a standard for it is fundamental for health reasons as well as the facilitation of trade.

The scope of this work is to provide guidance on the preparation, packaging and labeling of Maamoul. This proposal applies to the Maamoul marketed regionally.

2. Relevance and timeliness

This commodity is produced in Near East countries and exported internationally. Countries producing this product include: Saudi Arabia, Jordan, Palestine, Syria, Lebanon, United Arab Emirates, Oman, Kuwait, and Bahrain. The product is traded primarily within the region but there also other countries to which this commodity is exported such as: France, Denmark, Sweden, Norway, Germany, Netherlands, Turkey, United States of America, Australia, Gabon, Senegal, Kenya, Ethiopia, Pakistan and China (SFDA exporting certificate data). Therefore, the proposed standard will assist countries to have harmonized standard that will positively enhance trade.

3. Main aspects to be covered:

The work will address the main aspects of production of Maamoul such as composition, quality factors and labelling.

4. Assessment against the Criteria for the establishment of work priorities

General criterion

The proposed standard will enhance trade within the region and it will promote consumer protection.

- a. **Volume of production and consumption in individual countries and volume and pattern of trade between countries**

Table 1: volume production:

Country	Production	Volume of the production in ton (approximately)
Algeria	-	-
Bahrain	*	-
Egypt	√	2000
Iran	-	-
Iraq	-	-
Jordan	*	-
Kuwait	*	-
Lebanon	√	20000
Oman	*	-
Palestine	*	-

Qatar	*	-
Saudi Arabia	√	94056
State of Libya	-	-
Sudan	-	-
Syrian Arab Republic	*	-
Tunisia	-	-
United Arab Emirates	*	-
Yemen	-	-

*Production confirmed but data on production volume unavailable

- b. **Diversification of national legislations and apparent resultant or potential impediments to international trade.** Table 2 indicates the variation in national regulations and this could affect trade.

Table 2: Reference for national regulation of CCNE members

Country	National Regulation or standards for Maamoul
Algeria	x
Bahrain	GSO 2331
Egypt	ES 4170
Iran	x
Iraq	x
Jordan	x
Kuwait	GSO 2331
Lebanon	x
Oman	GSO 2331
Palestine	x
Qatar	GSO 2331
Saudi Arabia	GSO 2331
State of Libya	x

Sudan	x
Syrian Arab Republic	x
Tunisia	x
United Arab Emirates	GSO 2331
Yemen	GSO 2331

c. International or regional market potential

As illustrated in paragraph 2 above, there has been significant increase in the in the production of Maamoul within the region.

d. Amenability of the commodity to standardization

The proposed standard for Maamoul will include quality factors and hygiene, which contributes to protect consumer's health and ensure fair trade. Moreover, definitions regarding essential composition will be covered by the standard. There is no international standard for Maamoul. Therefore, the proposed Maamoul standard will harmonize the requirements for this type of product. The existence of national and sub-regional level standards also confirm the amenability of this product to standardization.

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

There is a regional standard among Gulf Cooperation Council (GCC) countries; however, this standard is not applicable for other CCNE members. Therefore, developing regional standards within CCNE will facilitate trade.

There are no existing international standards specifically covering Maamoul.

f. Number of commodities which would need separate standards indicating whether raw, semi-processed or processed

Currently there is no need of any other separate standard other than the proposed

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

None has been identified.

5. Relevance to Codex strategic objectives

The development of this work will contribute to the Strategic Objective 1 of the Strategic Plan 2020-2025 of the Codex Alimentarius Commission, namely "Address proactively and in a timely manner current, emerging and critical issues identified by Codex members in food safety and quality" and in particular to its objective 1 which is "Identify needs and emerging issues".

6. Information on the relationship between the proposal and other existing Codex documents:

The proposed standard will take into account existing applicable Codex texts such as:

- " Regional Standard for Date Paste" (Near East) CXS 314R-2013
- Codex General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985).
- Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969) and other relevant Codex texts such as codes of hygienic practice and codes of practice.
- Recommended Methods of Analysis and Sampling (CODEX STAN 234-1999).
- Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

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

None

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for the proposed timeline for completion of the new work

None.

9. Proposed timeline for completion of work

Subject to the Codex Alimentarius Commission approval at its 43rd session in 2020, it is expected that the work can be completed in three sessions.

Consideration by CCNE10	November 2019
Critical review by the Executive Committee and approval by CAC43 as new work	July 2020
Preparation of draft standard and circulation for comments	2020-2021
Consideration of the proposed draft standard by CCNE11 (Step 4)	2021/22
Adoption by CAC45 as Draft Standard (Step 5)	2022
Consideration of the draft Regional Standard by CCNE12 (Step 5)	2023/24
Adoption as regional standard by CAC	2024

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

(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. 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, Ichthyol.China Japan:304 (China Sea)(name suppressed by International Commission in

1970, Opinion, Bull.Zool.Nomencl.,26(5-6):2017)., *Amblygaster posterus* Whitley, 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).

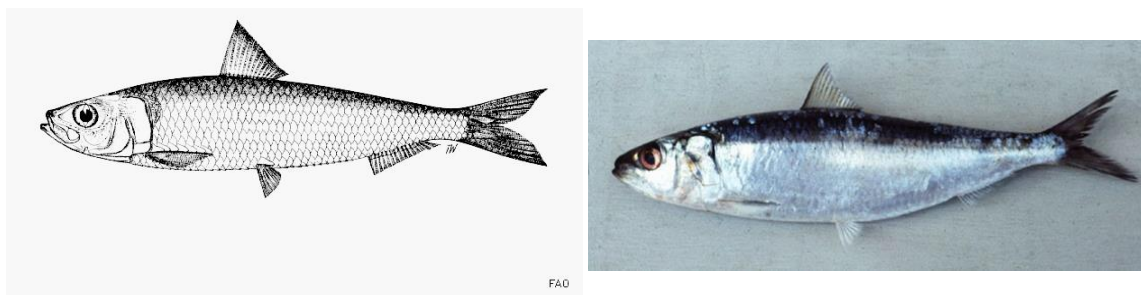


Fig. 1 *Sardinella lemuru*; Standard length: 23 cm, usually to 20 cm. Source: www.fishbase.org

(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

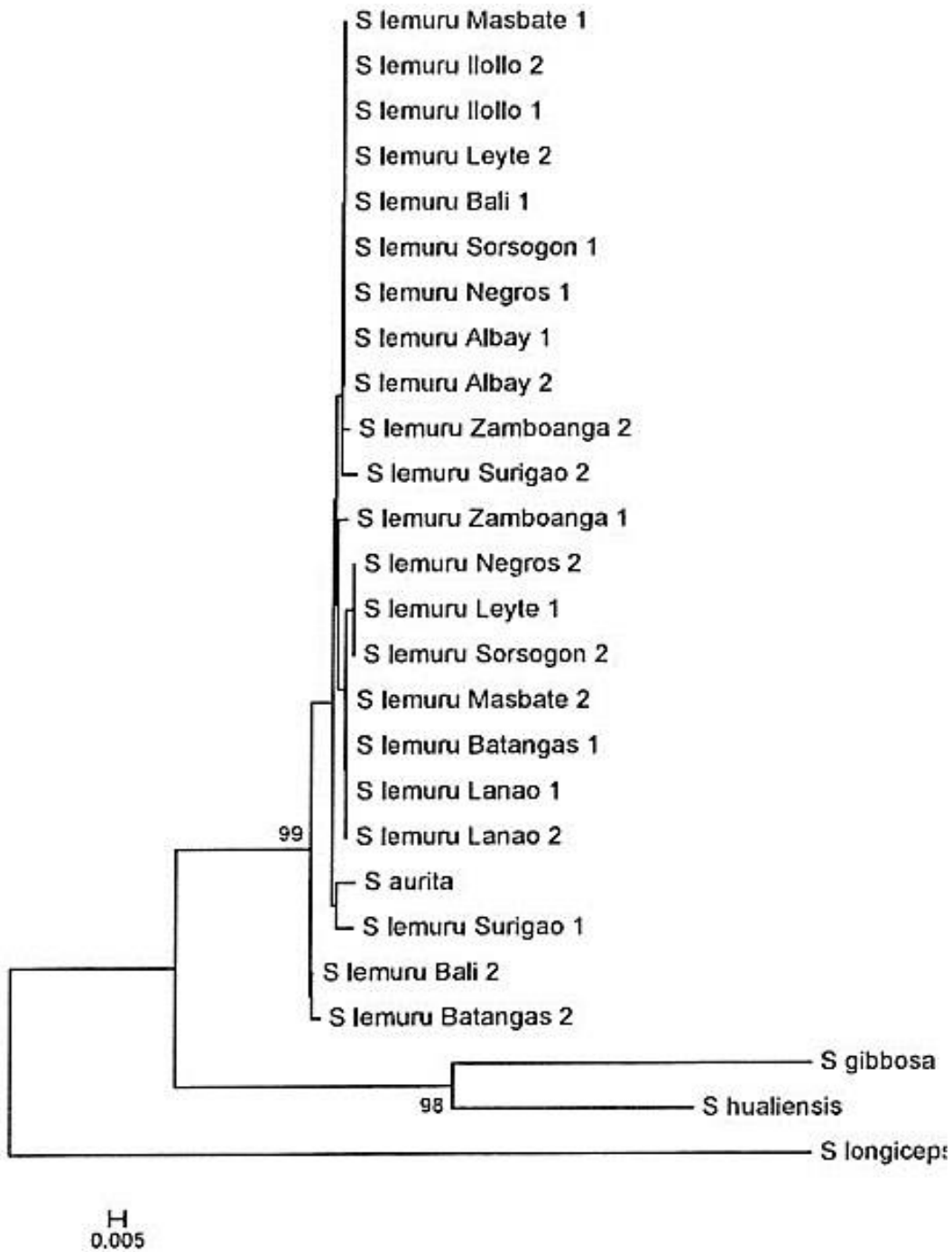


Fig. 2 Neighbour - Joining Tree showing the taxonomic position of *S. lemuru*; Source: Willette and Santos (2012)

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 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 Bali; 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 *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)

Global Capture Production for species (tonnes)
Source: FAO FishStat

Global Capture Production for species (tonnes)

Source: FAO FishStat

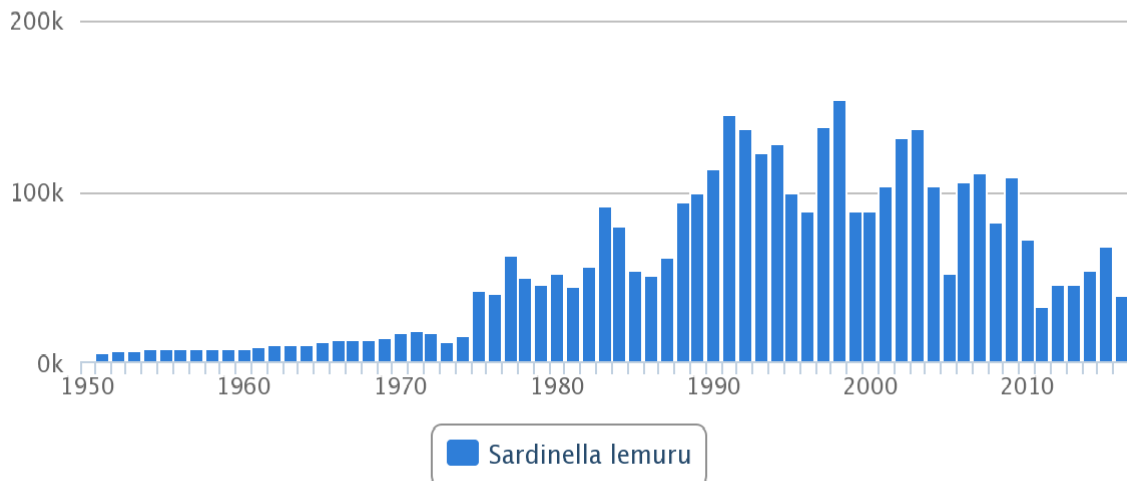


Fig. 5 Global production of *Sardinella lemuru* in MT; Source: www.fao.org.

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 Administrative 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.

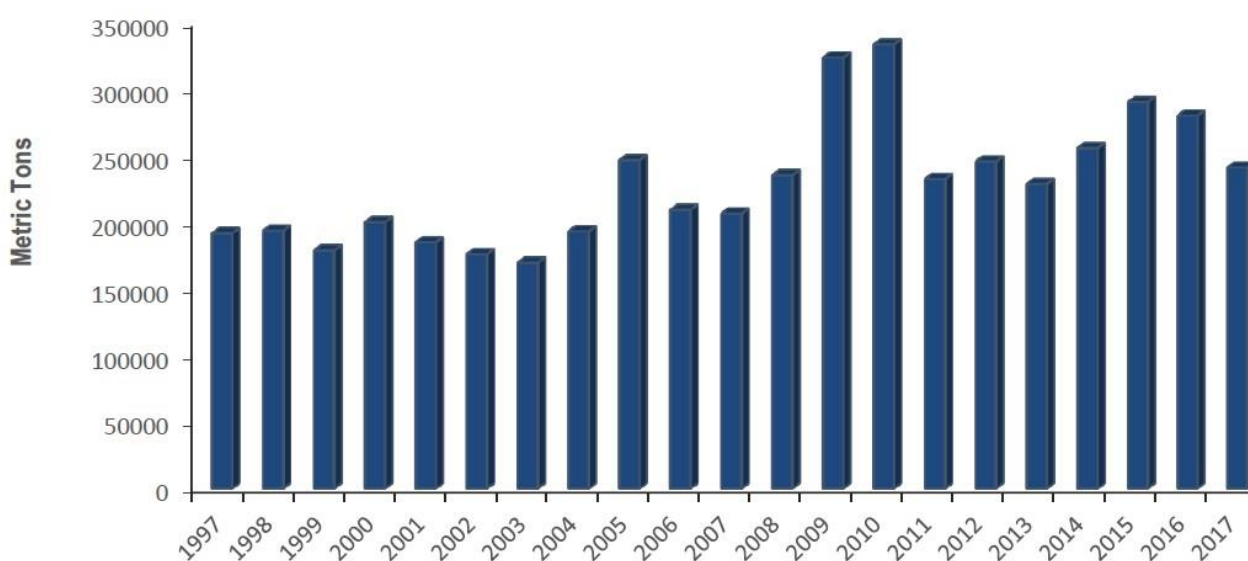


Fig. 6 Yearly catches of *Sardinella lemuru* in the Philippines for the last two decades; Data Source: Philippine Statistics Authority (www.psa.gov.ph)

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 average 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.

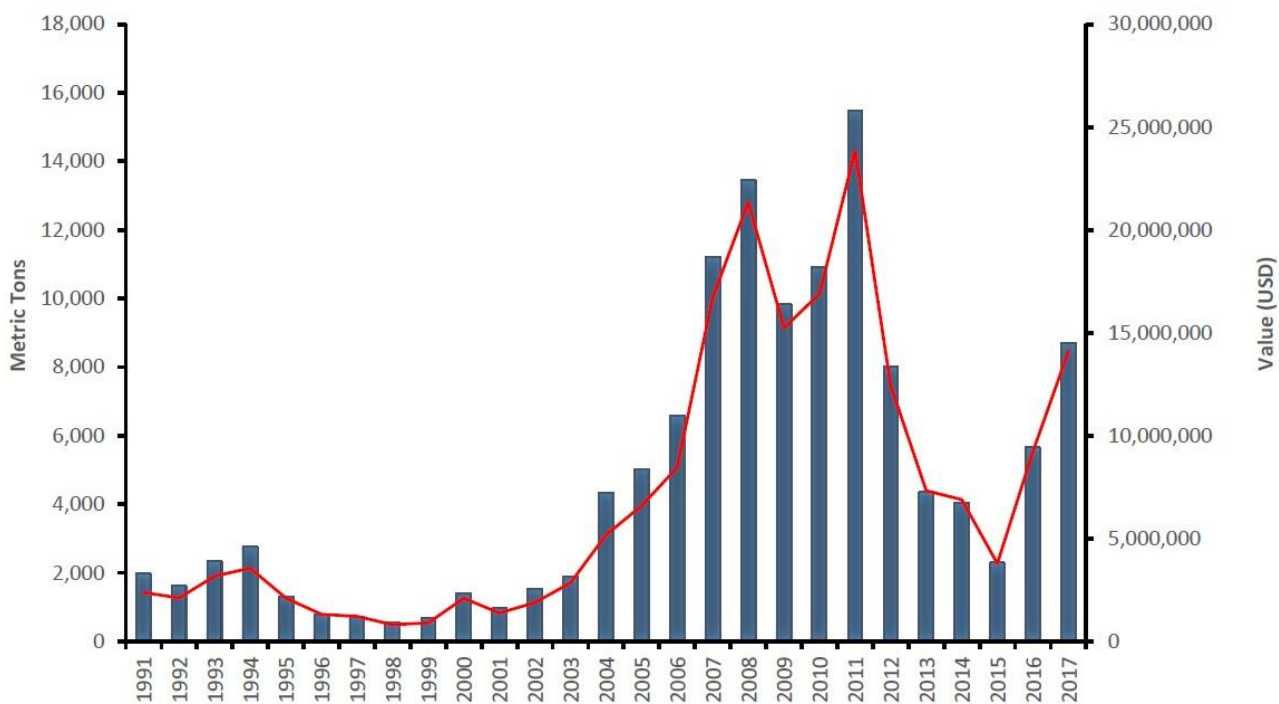


Fig. 7 Volume and value of exported canned *S. lemuru* in the Philippines from 1991-2018.

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

Asian countries are both exporters and importers of sardines including *S. lemuru* and contributing 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

Export

Land Area	Trade Values									
	2013		2014		2015		2016		2017	
	MT	USD '000	MT	USD '000	MT	USD '000	MT	USD '000	MT	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 ^F	14,316 ^F	6,259	18,126	5,019	16,576

Import

Land Area	Trade Values									
	2013		2014		2015		2016		2017	
	MT	USD '000	MT	USD '000	MT	USD '000	MT	USD '000	MT	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 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*, *S. lemuru***
- *Clupea harengus*
- *Clupea bentincki*
- *Sprattus sprattus*
- *Hyperlopus vittatus*
- *Nematalosa vlaminghi*
- *Etrumeus teres*
- *Ethmidium maculatum*
- *Engaulis 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 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).

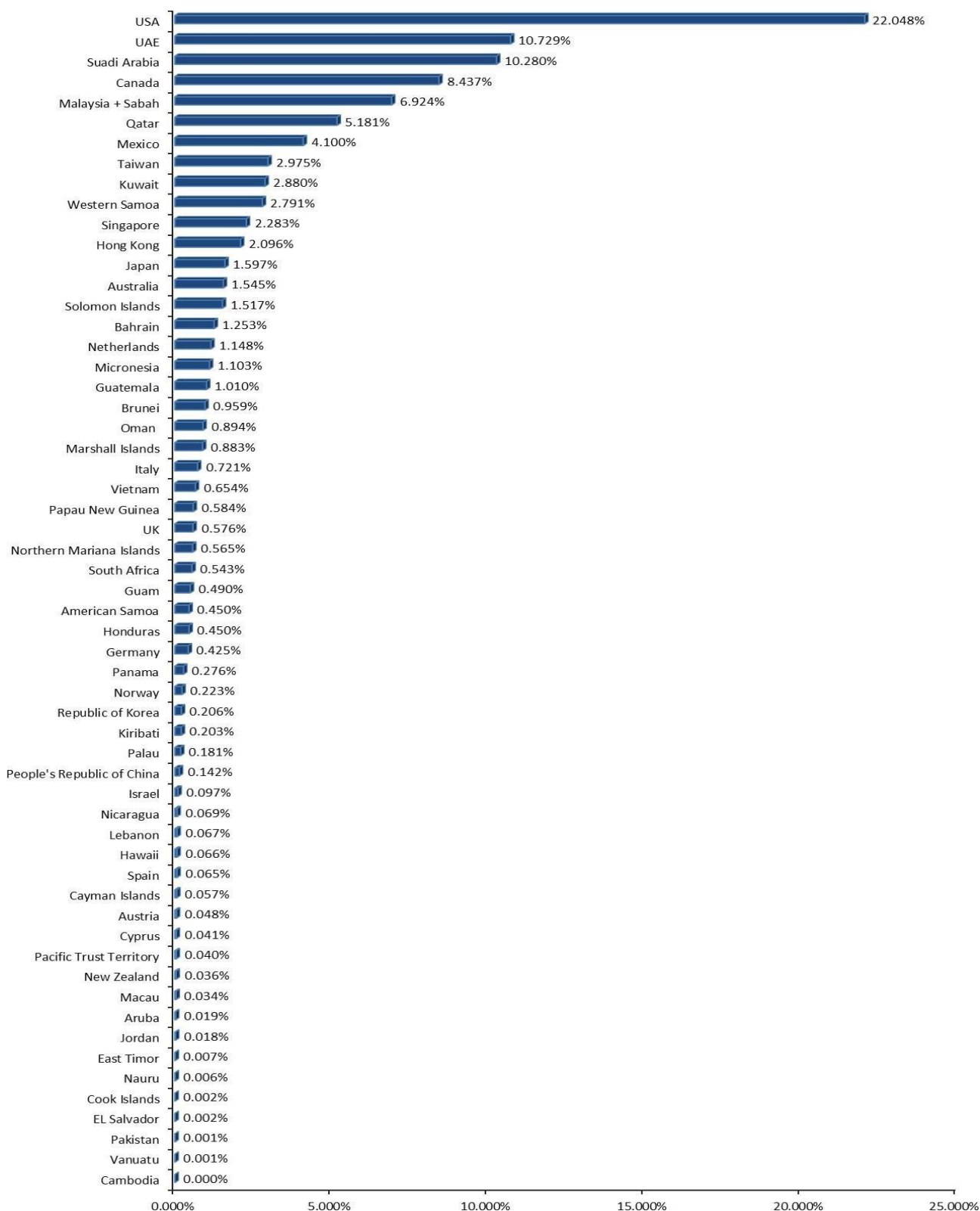


Fig. 8 Global market share of Philippine traded canned *S. lemuru* for the last six years.

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 941981) 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 941981) 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 941981) 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 941981) 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

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).