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FAO Revised Proposal for the Harmonized System 2017 Edition

FAO

Supporting Material to the
FAO Revised Proposal for the Harmonized System 2017 Edition

Food and Agriculture Organization of the United Nations

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ACKNOWLEDGEMENTS

For fishery products, the proposed improvement of coverage for sharks and shark fins has been developed in collaboration with the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service, and the U.S. Department of State.

For forestry products, the proposal has been developed in cooperation with Eurostat (Statistical Office of the European Communities) Forestry Statistics Unit, ITTO (International Tropical Timber Organization) and UNECE (United Nations Economic Commission for Europe) Forestry and Timber Section.

For agricultural machinery, the proposal has been prepared in partnership with VDMA (Verband Deutscher Maschinen- und Anlagenbau), AAPRESID (Asociación Argentina de Productores en Siembra Directa) and ABIMAQ (Associação Brasileira da Indústria de Máquinas e Equipamentos).

The FAO proposal covers agriculture, fishery and forestry products, fertilizers and agricultural machinery.

FISHERY PRODUCTS

RATIONALE:

There has been a dramatic growth in international trade in fishery commodities which was worth US$ 108 billion in 2010, up almost 98%, since 2000. Fish has become one of the most highly traded food commodities with about 40% of all production now exported. Trade statistics play an important role for sustainability purposes and in the case of fisheries can help the monitoring of the fishery sector. As repeatedly stated by FAO, the overall maximum potential from wild capture fisheries from the oceans has been reached, with an average 32% of world marine fishery stocks overexploited, depleted or recovering. Further benefits and the sustainability of fisheries can only be achieved through more cautious and effective fisheries management, aimed at maintaining fully exploited fishery resources and recovering those that are overexploited or depleted. An improved detailed description of trade would help the monitoring of the fishery sector. It is possible to pursue such an aim only if trade statistics are precise and show as far as possible the identity of the species.

The major revision implemented for fish and fishery codes in HS 2012 has represented a major step forward to have a wider coverage of species and product forms. FAO is therefore very grateful to WCO and its Member Countries for the successful collaboration during the previous revision cycle. It is important to mention that on 20-24 February 2012 the Thirteenth Session of the FAO COFI Sub-Committee on Fish Trade was held in Hyderabad, India. During this Session, several FAO Member countries emphasized the importance of the implemented revision in HS 2012, supported the ongoing collaboration of FAO and WCO and also proposed a few further amendments for HS 2017 which have been incorporated in this FAO proposal. However, not all their proposals could be included as they were either too detailed for the scope of the HS or were restricted by the lack of available codes.

Due to the importance of the HS in the collection of trade statistics, the main aim of the present FAO proposal for fish and fishery products is to further enhance the coverage of species and/or product forms which need to be monitored for food security purposes and/or for better management of resources, in particular for endangered species. The following paragraphs report the rationale for the various proposed amendments.

Compared to the version of March 2012, the proposal has been revised in some of its part to take into account the comments received at the 43rd Session of the Review Sub-Committee. Supporting material has been improved both in terms of descriptions and photos. In addition, further detail for selected species and product forms has been added as well, in particular for dogfish and other sharks, for rays and skates and for dried fish.

To expand the coverage of the present Carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodon idellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus*).

HS 2012 Structure

For subheadings : 0301.93, 0302.7, 0302.73, 0303.2, 0303.25, 0304.3, 0304.51, 0304.6, 0304.93, 0305.31, 0305.44. 0305.64

Carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodon idellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus*)

HS 2017 Proposed Structure

For subheadings : 0301.93, 0302.7, 0302.73, 0303.2, 0303.25, 0304.3, 0304.51, 0304.6, 0304.93, 0305.31, 0305.44. 0305.64

Two options:

a)
Carp and other Cyprinidae (*Cyprinidae*)

b)
Carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla*, *Labeo rohita*, *Osteochilus hasselti*, *Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)

Supporting information

Option a) is to cover all the *Cyprinidae*, a large family of freshwater fishes that include the carps, the true minnows, and their relatives (for example, the barbs and barbels). *Cyprinidae* is commonly named as the carp family or the minnow family. It includes over 2 400 species in about 220 genera. The family belongs to the order *Cypriniformes*, of whose genera and species the cyprinids make up two-thirds. The overall systematics and taxonomy of the *Cyprinidae* remain a subject of considerable debate as the substantial diversity of cyprinids has often created difficulties in making assignment to subfamilies, more than tentative in many cases. The advantage of selecting option a) would be to have all the *Cyprinidae* grouped together and to avoid any uncertainty linked to linguistic usage. There are several species which are named carps in one idiom, but not in others.

The alternative option b) would be to extend the coverage of the species included in the present codes for “carp”, adding other main species, as for example catla (*Catla catla*) and roho labeo (*Labeo rohita*). In 2010, fisheries production of these two species reached more than 5 million tonnes.

Proposal: to enlarge the coverage of pelagic species other than tunas included in subheadings 0302.4 and 0303.5.

HS 2012 Structure

0302.4 Herrings (*Clupea harengus*, *Clupea pallasii*), anchovies (*Engraulis spp.*), sardines (*Sardina pilchardus*, *Sardinops spp.*), sardinella (*Sardinella spp.*), brisling or sprats (*Sprattus sprattus*), mackerel (*Scomber scombrus*, *Scomber australasicus*, *Scomber japonicus*), jack and horse mackerel (*Trachurus spp.*), cobia (*Rachycentron canadum*) and swordfish (*Xiphias gladius*), excluding livers and roes

(...)

0303.5 Herrings (*Clupea harengus*, *Clupea pallasii*), sardines (*Sardina pilchardus*, *Sardinops spp.*), sardinella (*Sardinella spp.*), brisling or sprats (*Sprattus sprattus*), mackerel (*Scomber scombrus*, *Scomber australasicus*, *Scomber japonicus*), jack and horse mackerel (*Trachurus spp.*), cobia (*Rachycentron canadum*) and swordfish (*Xiphias gladius*), excluding livers and roes

(...)

HS 2017 Proposed Structure

0302.4 Herrings (*Clupea harengus*, *Clupea pallasii*), anchovies (*Engraulis spp.*), sardines (*Sardina pilchardus*, *Sardinops spp.*), sardinella (*Sardinella spp.*), brisling or sprats (*Sprattus sprattus*), mackerel (*Scomber scombrus*, *Scomber australasicus*, *Scomber japonicus*), Indian mackerels (*Rastrelliger* spp.), seerfishes (*Scomberomorus* spp), jack and horse mackerel (*Trachurus spp.*), jacks, crevalles (*Caranx* spp.), cobia (*Rachycentron canadum*), silver pomfrets (*Pampus* spp.), Pacific saury (*Cololabis saira*), scads (*Decapterus* spp.), capelin (*Mallotus villosus*), swordfish (*Xiphias gladius*), Kawakawa (*Euthynnus affinis*), bonitos (*Sarda* spp.), marlins, sailfishes, spearfish (*Istiophoridae*), excluding livers and roes

(...)

0302.49 -- Other

(...)

0303.5 Herrings (*Clupea harengus*, *Clupea pallasii*), anchovies (*Engraulis spp.*), sardines (*Sardina pilchardus*, *Sardinops spp.*), sardinella (*Sardinella spp.*), brisling or sprats (*Sprattus sprattus*), mackerel (*Scomber scombrus*, *Scomber australasicus*, *Scomber japonicus*), Indian mackerels (*Rastrelliger* spp.), seerfishes (*Scomberomorus* spp), jack and horse mackerel (*Trachurus spp.*), jacks, crevalles (*Caranx* spp.), cobia (*Rachycentron canadum*), silver pomfrets (*Pampus* spp.), Pacific saury (*Cololabis saira*), scads (*Decapterus* spp.), capelin (*Mallotus villosus*), swordfish (*Xiphias gladius*), Kawakawa (*Euthynnus affinis*), bonitos (*Sarda* spp.), marlins, sailfishes, spearfish (*Istiophoridae*), excluding livers and roes

(...)

0303.59 -- Other

Supporting information

In HS2012, fish and fishery commodities were reorganized according to main groups of species of similar biological characteristics. In order to complete this organization, the proposal is to add other species to the text of the subheadings 0302.4 and 0303.5 and insert an entry "other" where all these species will be grouped. Through this addition, the most important pelagic fish, other than tunas, will be classified together The concept "pelagic fish" is defined by habitat, i.e. by the fact that the fish in this category spend most of their life swimming in the upper layer of sea water with little contact with or dependency on the bottom. They often travel and feed in large groups or schools. Pelagic species are classified by FAO under codes 35, 36 and 37 of the ISSCAAP (International Standard Statistical Classification of Aquatic Animals and Plants) classification.

The proposed species to be added are the following:

Indian mackerels (*Rastrelliger* spp.), seerfishes (*Scomberomorus* spp), jacks, crevalles (*Caranx* spp.), silver pomfrets (*Pampus* spp.), Pacific saury (*Cololabis saira*), scads (*Decapterus* spp.), capelin (*Mallotus villosus*), Kawakawa (*Euthynnus affinis*), bonitos (*Sarda* spp.), marlins, sailfishes, spearfish (*Istiophoridae*)

In 2010, fisheries production of these species reached more than 5.2 million tonnes in 2010.

Proposal: to insert shark fins and fish heads, tails, maws and other edible fish offal in frozen form, with a major emphasis on shark fins, and to introduce shark fins in prepared and preserved form.

HS 2012 Structure

0303.90 -- Livers and roes

HS 2017 Proposed Structure

- Livers, roes, milt, fish fins, heads, tails, maws and other edible fish offal

0303.91 -- Livers, roes and milt

0303.92 -- Shark fins

0303.99 -- Other

(...)

1604.18 -- Shark fins

Supporting information

Trade of edible fish offals, including heads, tails and maws are important for food security purposes as they represent an additional source of proteins for many developing countries, being added to soups and other food preparations. In this proposal, major emphasis is given to the inclusion of shark fins. Further benefits and the sustainability of shark fisheries can only be achieved through more cautious and effective fisheries management, aimed at maintaining fully exploited shark resources and recovering those that are overexploited or depleted. There is much evidence that many shark species continue to be targeted for their fins, which are the most valuable part of shark. Due to the international concern on the problem of depleted and threatened stocks and species of shark, it is very important to monitor their catches for improved management of resources. International trade in shark products (including fins and meat) has been recognized as major driver for the overexploitation of some shark species. Increased concerns about the threatened status of shark species targeted for international trade has led to having several shark species listed on the IUCN Red List of Threatened Species as vulnerable or endangered over at least some part of their range as well as to proposals for listing shark species in the Appendices of the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora). Further improving the collection of data on shark fin trade, including in frozen and prepared and preserved forms would be very important as they are the most valuable part of the shark. Quite often sharks are caught, their fins are removed and then the remainder of the shark is thrown back into the water. This practice (finning) is prohibited by national bans in several countries. It is also contrary to

recommendations or resolutions agreed by several regional fisheries management organizations. Despite several successful prosecutions for violations in some countries, global enforcement of finning restrictions remains minimal and finning, both within and outside regulated areas, undoubtedly continues in many waters. Obtaining additional trade data on shark fins would be very important to detect this phenomenon and to estimate the real catches. In the last few years, FAO received a growing amount of recorded trade of shark fins in frozen form.

Present explanatory notes for 0303 and 0304 do not seem to provide a clear indication on where fins, maws and other edible offals should be included. Trade data received from countries with detailed classifications based on the HS present shark fins and edible offals as heads and maws in frozen form or under 0303 or under 0304 (under other than fillets=meat in particular). In the proposal, we have inserted them under 0303 through the creation of separate subheadings together with livers and roes. This would allow the distinction between fish whole/headed/gutted and “fractions” of them, excluding fillets and meat.

For shark fins in prepared and preserved format, the proposal is to have a separate code, 1604.18.

Proposal: to insert fresh and frozen fillets and other meat of dogfish, other sharks, rays and skates (*Rajidae*).

HS 2012 Structure

(...)
0304.46 -- Toothfish (*Dissostichus spp*.)

0304.49 -- Other
(...)

(...)
0304.55 -- Toothfish (*Dissostichus spp*.)

0304.59 -- Other
(...)

(...)
0304.87 -- Tunas (of the genus *Thunnus*), skipjack or stripe-bellied bonito (*Euthynnus* (*Katsuwonus*) *pelamis*)
0304.89 -- Other
(...)

(...)
0304.95 -- Fish of the families *Bregmacerotidae*, *Euclichthyidae*, *Gadidae*, *Macrouridae*, *Melanonidae*, *Merlucciidae*, *Moridae* and *Muraenolepididae,* other than Alaska Pollack (*Theragra chalcogramma*)
0304.99 -- Other
(...)

HS 2017 Proposed Structure

(...)
0304.46 -- Toothfish (*Dissostichus spp*.)

0304.47 -- Dogfish and other sharks

0304.48 -- Rays and skates (*Rajidae*)

0304.49 -- Other
(...)

(...)

0304.55 -- Toothfish (*Dissostichus spp*.)

0304.56 -- Dogfish and other sharks

0304.57 -- Rays and skates (*Rajidae*)

0304.59 -- Other

(...)

(...)

0304.87 -- Tunas (of the genus *Thunnus*), skipjack or stripe-bellied bonito (*Euthynnus* (*Katsuwonus*) *pelamis*)

0304.88 -- Dogfish, other sharks, rays and skates (*Rajidae*)

0304.89 -- Other

(...)

0304.95 -- Fish of the families *Bregmacerotidae*, *Euclichthyidae*, *Gadidae*, *Macrouridae*, *Melanonidae*, *Merlucciidae*, *Moridae* and *Muraenolepididae,* other than Alaska Pollack (*Theragra chalcogramma*)

0304.96 -- Dogfish and other sharks

0304.97 -- Rays and skates (*Rajidae*)

0304.99 -- Other

Supporting information

As already indicated in previous pages, due to the international concern on the problem of depleted and threatened stocks and species of shark and *Rajiade,* it is very important to monitor their trade for an improved management of resources. In addition, at least for frozen fillets, the entry should be higher than the minimum threshold.

Proposal: to enlarge the breakdown of dried fish, adding three groups of species.

HS 2012 Structure

(...)
-Dried fish, other than edible fish offal, whether or not salted but not smoked :

0305.51 -- Cod (*Gadus morhua, Gadus ogac, Gadus macrocephalus*)

0305.59 -- Other
(...)

HS 2017 Proposed Structure

(...)
0305.52 -- Tilapias (*Oreochromis spp*.), catfish (*Pangasius spp*., *Silurus spp*., *Clarias spp*., *Ictalurus spp*.), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp*., *Cirrhinus spp*., *Mylopharyngodon piceus, Catla catla*, *Labeo rohita*, *Osteochilus hasselti*, *Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp*.), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*).

0305.53 -- Fish of the families *Bregmacerotidae*, *Euclichthyidae*, *Gadidae*, *Macrouridae*, *Melanonidae*, *Merlucciidae*, *Moridae* and *Muraenolepididae*, other than Cod (*Gadus morhua, Gadus ogac, Gadus macrocephalus*)

0305.54 -- Herrings (*Clupea harengus*, *Clupea pallasii*), anchovies (*Engraulis spp.*), sardines (*Sardina pilchardus*, *Sardinops spp.*), sardinella (*Sardinella spp.*), brisling or sprats (*Sprattus sprattus*), mackerel (*Scomber scombrus*, *Scomber australasicus*, *Scomber japonicus*), Indian mackerels (*Rastrelliger* spp.), seerfishes (*Scomberomorus* spp), jack and horse mackerel (*Trachurus spp.*), jacks, crevalles (*Caranx* spp.), cobia (*Rachycentron canadum*), silver pomfrets (*Pampus* spp.), Pacific saury (*Cololabis saira*), scads (*Decapterus* spp.), capelin (*Mallotus villosus*), swordfish (*Xiphias gladius*), Kawakawa (*Euthynnus affinis*), bonitos (*Sarda* spp.), marlins, sailfishes, spearfish (*Istiophoridae*)

0305.59 -- Other
(...)

Supporting information

The split by more detailed species for dried fish has been suggested due to the importance of trade and consumption of these species. Drying still remains a traditional method to retail and consume fish in many countries, in particular in Africa and Asia. About US$ 1 billion is at

present traded under 0305.59. Furthermore, for the calculation of the apparent food consumption data, the conversion factors needed to convert trade quantities of dried fish from product weight into live weight equivalent differ according to the species groups. The proposed divisions would enable a better monitoring of the food situation of the countries.

Proposal: to split present code 0305.71 for fins in dried, salted or in brine or smoked form, adding the specification for four shark species.

HS 2012 Structure

- Fish fins, heads, tails, maws and other edible fish offal :

0305.71 -- Shark fins

0305.72 -- Fish heads, tails and maws

0305.79 -- Other

HS 2017 Proposed Structure

- Fish fins, heads, tails, maws and other edible fish offal :

0305.72 -- Fish heads, tails and maws

0305.73 -- Dried, whether or not salted, fins of hammerhead sharks (*Sphyrnidae*), with skin and cartilage

0305.74 -- Dried, whether or not salted, fins of oceanic whitetip shark (*Carcharhinus longimanus*), with skin and cartilage

0305.75 -- Dried, whether or not salted, fins of blue shark (*Prionace glauca*), with skin and cartilage

0305.76 -- Dried, whether or not salted, fins of porbeagle shark (*Lamna nasus*), with skin and cartilage

0305.77 -- Other shark fins

0305.79 -- Other

Supporting information

It is important to mention that for sharks, FAO has received a proposal National Oceanic and Atmospheric Administration (NOAA), US Fish and Wildlife Service, and the US Department of State to insert additional detail by individual shark species for dogfish and sharks in fresh or chilled form as well as for the following four species for shark fins under 0305:

- Hammerhead sharks (family *Sphyrnidae*)
- Oceanic whitetip sharks (*Carcharhinus longimanus*)
- Blue shark (*Prionace glauca*)
- Porbeagle shark (*Lamna nasus*)

As it is not possible to include species of sharks under 0302 and 0303 due to the lack of available codes, FAO suggests countries to add additional detail of species on their national classifications based on HS.

The shark fin trade relies heavily on about 14 species of sharks, several of which are vulnerable or endangered, over at least some part of their range, including the four species proposed. The lack of long-term data by species heavily constrains the ability of scientists to conduct stock assessments for most populations and to conclude with high certainty as to whether these populations are declining due to overfishing. The rationale of the proposal is to obtain a better coverage of data for management of these four species. These species have been selected as many experts agree that it is necessary to monitor the trade in their fins. They are globally distributed and their fins are traded internationally in large numbers. The great part of these species has at least one population listed as Endangered or Critically Endangered by the International Union for Conservation of Nature (IUCN). In addition, they are also subject to conservation and management measures in one or more regional fisheries management organization. They have also, at some point, been proposed for inclusion on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

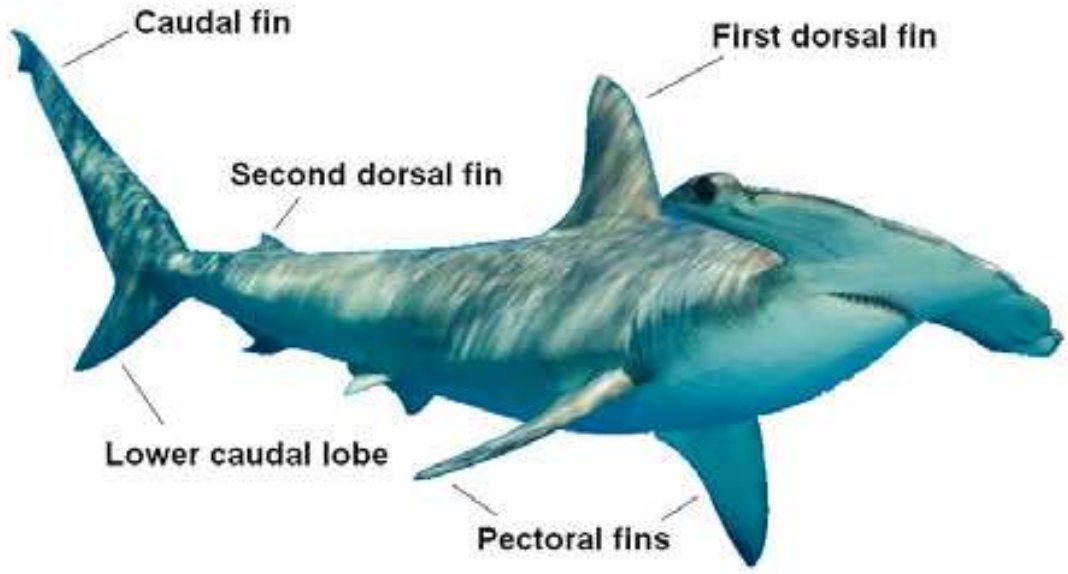
Shark fins can be identified according to specific characteristics. Valuable fins from an individual are often traded as a set (first dorsal, paired pectoral fins and lower caudal lobe). In the next few pages, additional information on identification of the shark fins for the proposed species are reported.

Compared to March 2012, for the four species under review, in order to take into account the comments of the 43rd Session of the Review Sub-Committee, the proposal has been limited to dried, whether of not salted, shark fins. Drying and salting do not compromise the identification of shark fins, as long as the skin and cartilage are still present. The bulk of the trade of shark fins is in dried form, with skin and cartilage on. In order to be consumed, fins need to be processed according to distinctive techniques, which can differ according to the final consumers. As highly prized commodities, processing tend to be done once imported. China, Hong Kong SAR and Singapore are the main importing markets for shark fins.

The following image[1] shows the positions of the fin types that are highly prized in trade: the first dorsal, paired pectoral fins and the lower lobe of the caudal fin. The lower lob is the only

[1] The great part of the information provided on identification of shark fins has been extracted from the guide: Identifying Shark fins. Oceanic Whitetip, Porgeable and Hammerhead supported by the Pew Environment Group and the Roe Foundation and compiled by Debra L. Abercrombie, Abercrombie & Fish, and Demian D. Chapman, School of Marine and Atmospheric Sciences and Institute for Ocean Conservation Science, Stony Brook University. The guide is available at: http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Other_Resource/Shark%20Fin%20ID%20Guide%201%2024%2012.pdf

part of the caudal fin that is valuable in trade (the upper lobe is usually discarded). Second dorsal fins, paired pelvic fins and anal fins, though less valuable, also occur in trade.



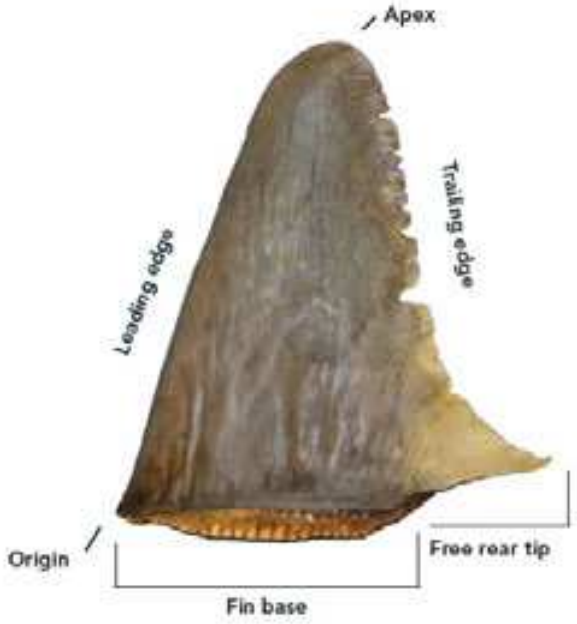
Shark fin genetic tests[2] are available, allowing species-specific identification for commercially traded shark species. DNA-barcodes for the proposed species are available in searchable internet databases[3], allowing identification of these species using DNA barcoding methods. The identification of seafood products by DNA barcoding is increasingly common. DNA sequencing facilities are found in many laboratories around the world and sequencing

[2] For example, information on this issue is available in the following publications:
S.C. Clarke *et al.,* "Identification of shark species composition and proportion in the Hong Kong shark fin market based on molecular genetics and trade records," *Conservation Biology,* 20(1):201- 11 (2006).
D.L. Abercrombie *et al.,* "Global-scale genetic identification of hammerhead sharks: Application to assessment of the international fin trade and law enforcement," *Conservation Genetics,* 6(5):775-88 (2005).
M.S. Shivji *et al.,* "Genetic Identification of Pelagic Shark Body Parts for Conservation and Trade Monitoring," *Conservation Biology,* 16(4):1036-1047 (August 2002).
B.H. Holmes *et al.,* "Identification of shark and ray fins using DNA barcoding," *Fisheries Research,* 95:280-8 (2009).
H.P. Sebastian *et al.,* "Characterization of the pelagic shark-fin trade in north-central Chile by genetic identification and trader surveys," *Journal of Fish Biology,* 73:2293–304 (2008).
M. Pank *et al.,* "Rapid and simultaneous identification of body parts from the morphologically similar sharks *Carcharhinus obscurus* and *Carcharhinus plumbeus* (Carcharhinidae) using multiplex PCR," *Marine Biotechnology,* 3(3):231- 40 (2001).
D.D. Chapman *et al.,* "Tracking the fin trade: Genetic stock identification in endangered scalloped hammerhead sharks, *Sphyrna lewini," Endangered Species Research* (doi: 10.3354/ esr00241).
Shivji, M.S. (2010). DNA forensic applications in shark management and conservation. In J.C. Carrier, J.A. Musick, & M.R. Heithaus (Eds.), Sharks and their relatives II: Biodiversity, adaptive physiology, and conservation (pp. 593-611). Boca Raton: CRC Press
or Shark DNA Forensics: Applications and Impacts on Genetic Diversity, Luis Fernando Rodrigues-Filho, Danillo Pinhal,Davidson Sodré and Marcelo Vallinoto available at http://cdn.intechopen.com/pdfs/29265/InTech-Shark_dna_forensics_applications_and_impacts_on_genetic_diversity.pdf
[3] For example GenBank available at: www.ncbi.nlm.nih.gov

costs are declining. Species-diagnostic PCR is even easier and more cost-effective than DNA barcoding because virtually all molecular laboratories in the world are equipped for this relatively simple technique. In most of these labs, identification of about 50 shark samples can be completed in a single workday by one technician using species-diagnostic PCR.

In order to visually identify shark fin of three of the proposed species, a very useful identification guide has been recently developed: "Identifying Shark fins. Oceanic Whitetip, Porgeable and Hammerhead"[4]. This guide provides a very valuable tool to visually identify the fist dorsal fins of these shark species and gives clear indications on the other fins of the shark under reviews. Being very often traded as a set, the identification of the first dorsal fin is crucial for the identification of the entire set. The guide describes the key characteristics that can be used to quickly and easily separate the first dorsal fins of these species from other types of shark fins in trade. Porbeagle and oceanic whitetip first dorsal fins can be rapidly and unambiguously identified to the species level based on the diagnostic white markings detailed in the guide. The first dorsal fins of hammerhead sharks as a group can also be rapidly and unambiguously separated from all other large sharks using two simple measurements that describe their characteristic shape (much taller than they are broad) and color (dull brown or light grey).

The dorsal shark fin landmarks indicated in the guide are illustrated in the following figure:



[4] See footnote 1 for the complete reference.

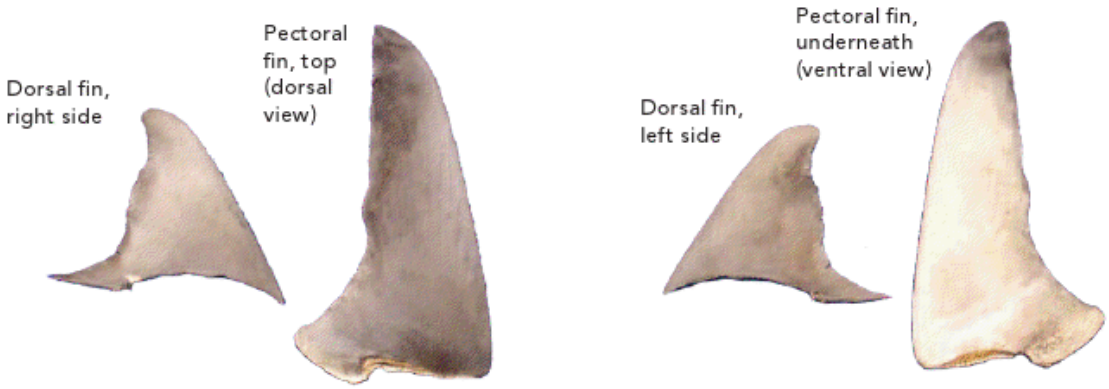
In order to distinguish the species, the guide suggests following three major steps:

- Step 1: distinguish first dorsal fins from other highly-valued traded fins: pectoral fins and lower caudal lobes.
- Step 2: look for white first dorsal fin markings, and use the ad hoc flowchart to identify either porbeagle or oceanic whitetip sharks or exclude many species with black fin markings.
- Step 3: take several simple measurements to help identify hammerhead first dorsal fins, which are much taller than they are broad and are dull brown or light grey.

Step 1 consists of two main phases:

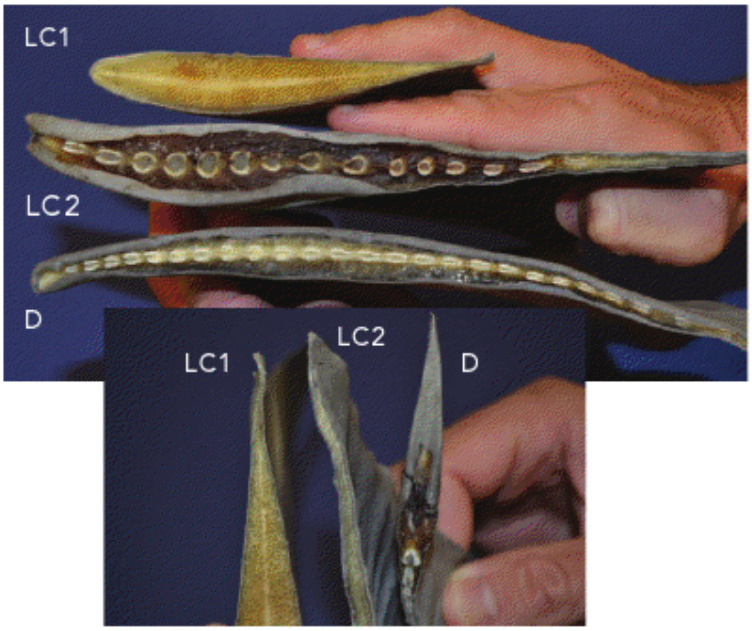
a): Check the fin color on each side

Dorsal fins are the same color on both sides (see right and left side views below). In contrast, pectoral fins are darker on the top side (dorsal view) and lighter underneath (ventral view).

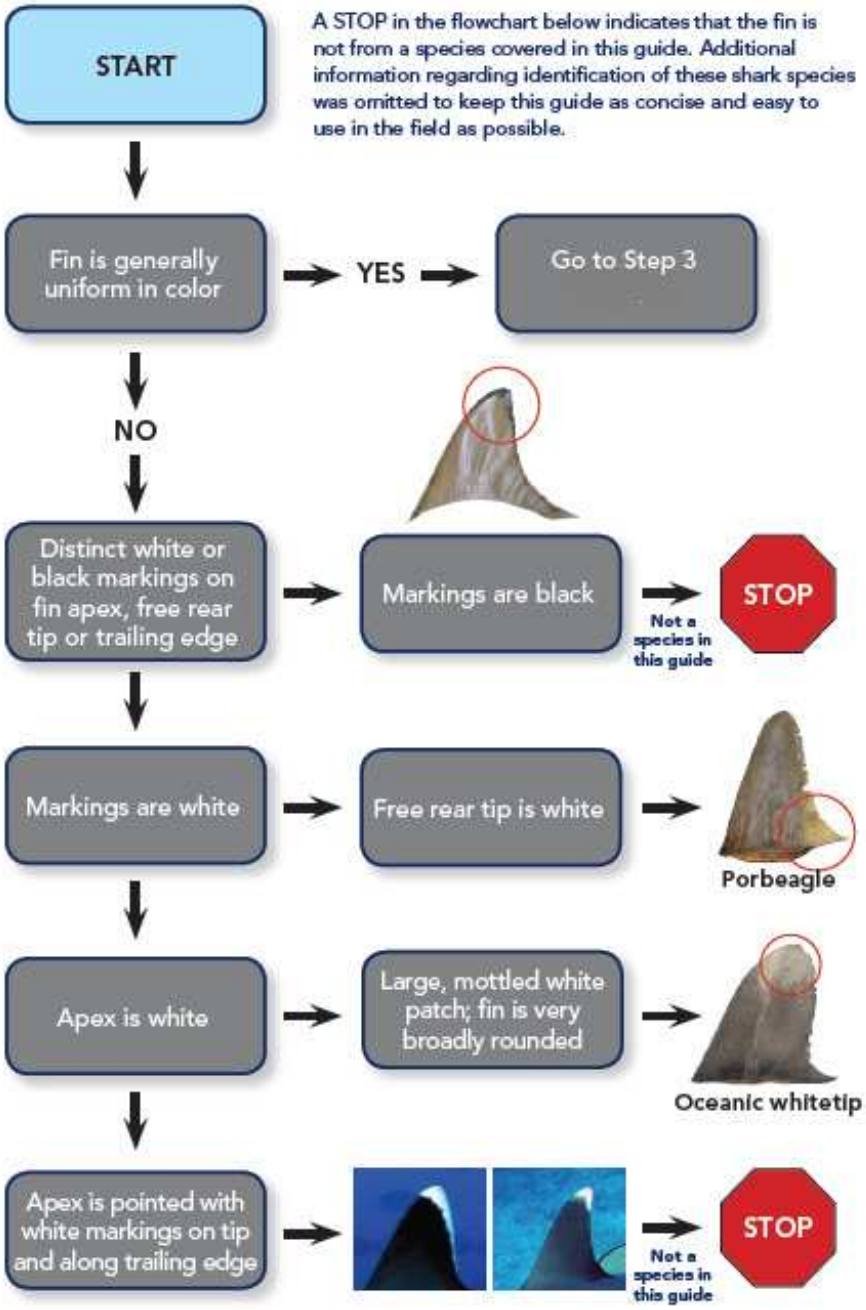


and b): Check the base of the fin

Dorsal fins (D) have a continuous row of closely spaced cartilaginous blocks running along almost the entire fin base. When looking at a cross section of the base of a lower caudal lobe (LC1), there is typically only a yellow, "spongy" material called ceratotrichia, which is the valuable part of the lower caudal lobe. In some lower caudal lobes (LC2) there may be a small number of the cartilaginous blocks, but they are usually widely spaced and/or occur only along part of the fin base. Usually, the lower caudal lobe has been cut along its entire base when removed from the shark; in contrast, dorsal fins frequently have a free rear tip that is fully intact.



Step 2 is illustrated through the following flow chart, which indicates the preliminary actions to be taken in the identification of porbeagle and oceanic whitetip fins:

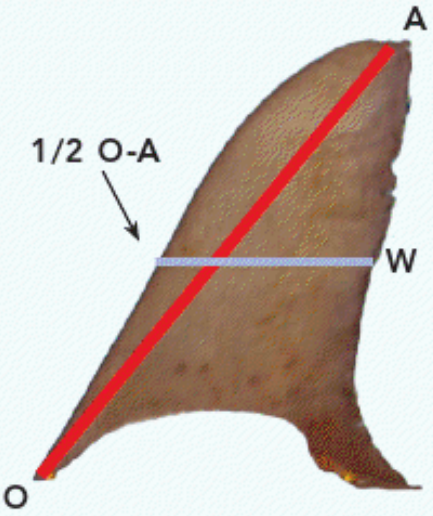


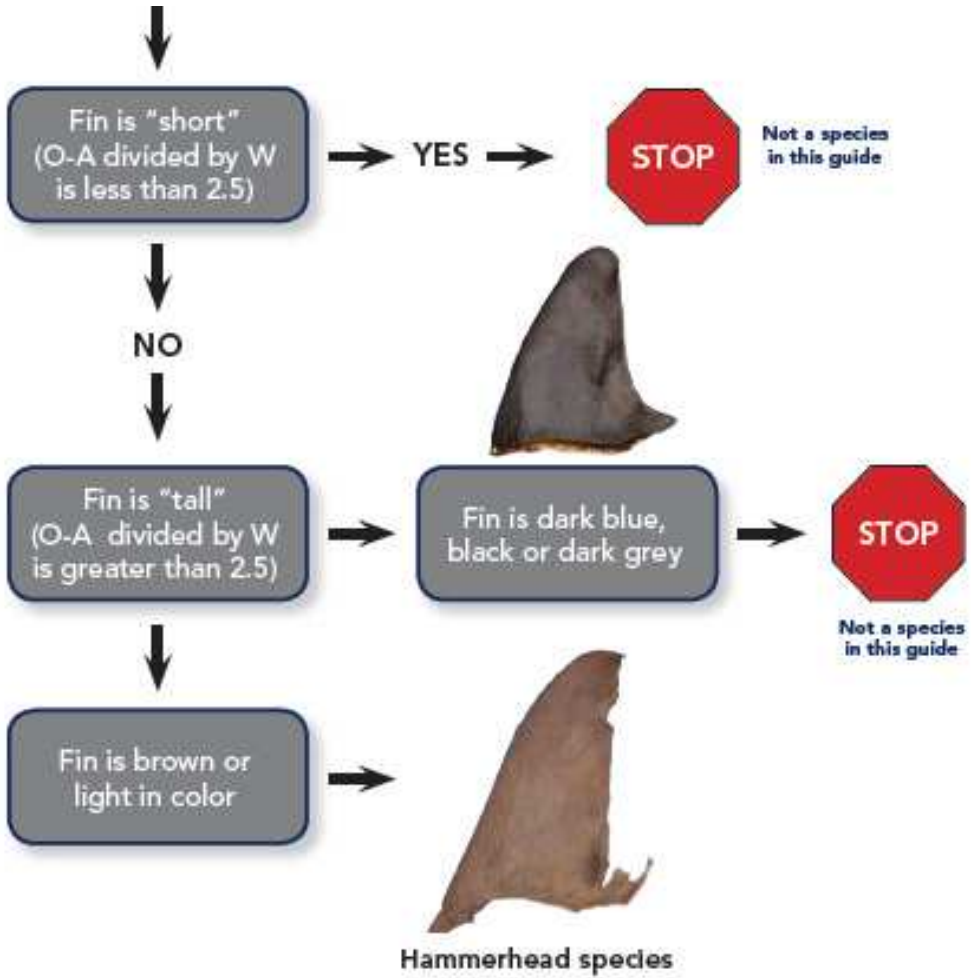
Step 3 indicates how to identify the first dorsal fins of hammerhead:

Take fin measurements

1) Measure fin origin to apex (O-A).
2) Measure the fin width (W) at the halfway point of O-A (i.e., if O-A is 10 cm, measure W at 5 cm along O-A).
3) Divide O-A by W (O-A/W).

Origin, apex and fin width (measured from leading edge to trailing edge) are landmarks found to be the most useful for species identification purposes, as measurements based on fin height, fin base and free rear tip were often too variable and dependent on cut and condition of the fin.



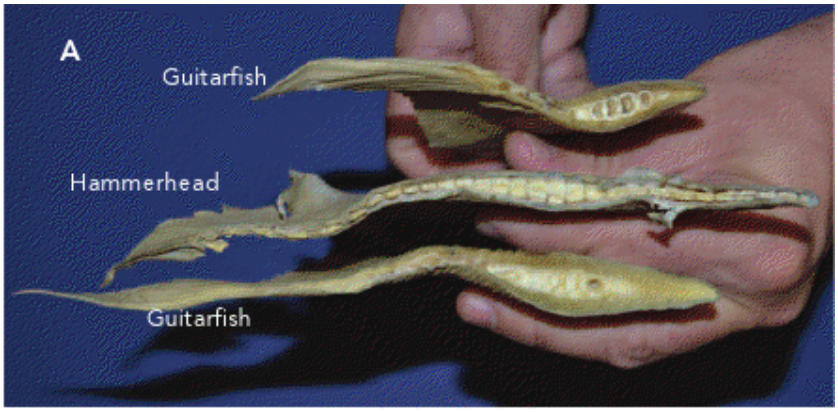


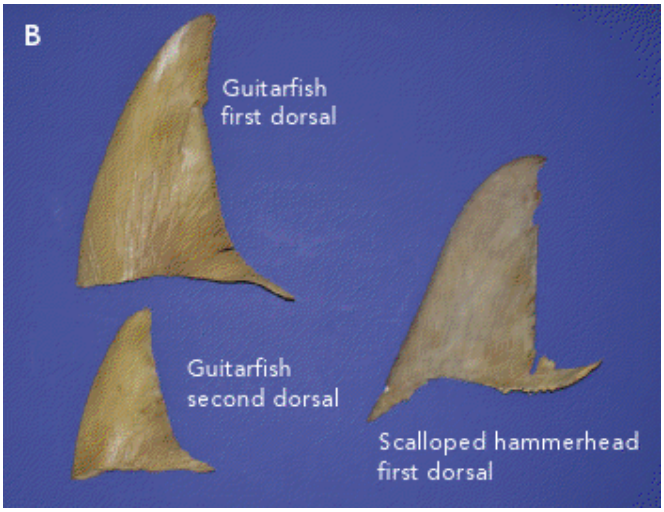
In the following pages, more detailed information is provided on the identification of the fins for the species under review.

Hammerhead sharks (family *Sphyrnidae*)
Hammerhead shark fins are highly sought after for shark fin soup because of their large size and the high "needle count" or fibers, that make up the fin. Three hammerhead species are the only hammerheads common in international trade of shark fins: great hammerhead (*Sphyrna mokarran*), scalloped hammerhad (*Sphyrna lewini*) or smooth hammerhad(*Sphyrna zygaena*).

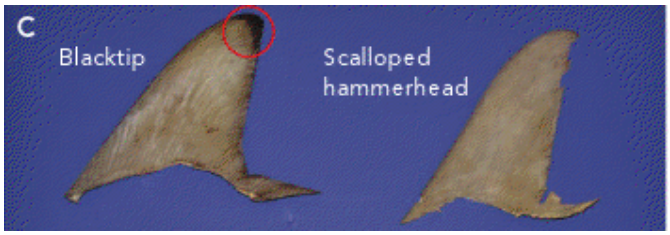
The first dorsal fins of hammerhead sharks as a group can also be rapidly and unambiguously separated from all other large sharks using two simple measurements that describe their characteristic shape (much taller than they are broad) and color (dull brown or light grey).

Dorsal fins that are tall and slender and dull brown or light grey are probably one of three species of hammerhead sharks: great hammerhead (*Sphyrna mokarran*), scalloped hammerhad (*Sphyrna lewini*) or smooth hammerhad (*Sphyrna zygaena*). Tall dorsal fins can also come from several species of guitarfish or blacktip sharks. In guitarfish first dorsal fins, cartilaginous blocks do not extend across the entire fin base (Image A). In hammerheads, these cartilaginous blocks are present along almost the entire fin base (Image A). Guitarfish dorsal fins also exhibit a glossy sheen (Image B), and some species also have white spots, unlike the dull brown, uniform coloration of hammerhead dorsal fins.

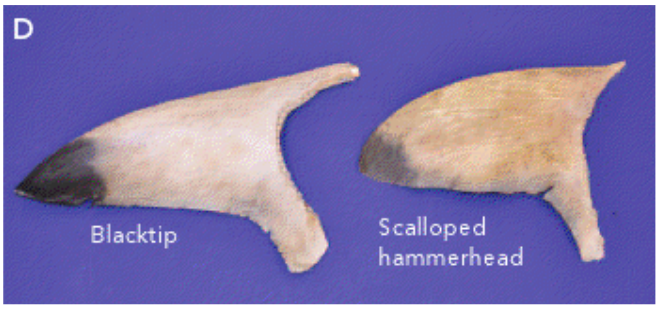




To distinguish hammerheads from other species, it is important to mention that some blacktip shark (*Carcharhinus limbatus*) first dorsal fins exhibit O-A/W that is close to or slightly greater than 2.5. However, they often (but not always) have a black spot on the dorsal fin apex, and the fin has a glossy appearance that is unlike the dull of the hammerheads (Image C).



In addition, Blacktip shark pectoral fins are also longer and more slender than the short, broad fins of the hammerheads (Image D).



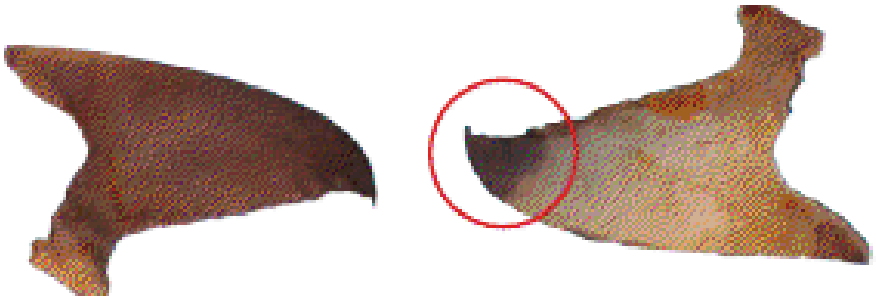
As mentioned before, three hammerhead species are common in international trade of shark fins: Scalloped hammerhead (*Sphyrna lewini*), Smooth Hammerhead (*Sphyrna zygaena*) and Great Hammerhead (*Sphyrna mokarran*)

The main criteria of identification for fins of **Scalloped hammerhead (*Sphyrna lewini*)** are illustrated below:

First dorsal fin is tall, flattening out toward apex; straight to moderately curved trailing edge (similar to smooth hammerhead, less slender than great hammerhead first dorsal fin)

First dorsal fin

Pectoral fins are short and broad with black tips visible at the apex on ventral side.



Dorsal view (top)

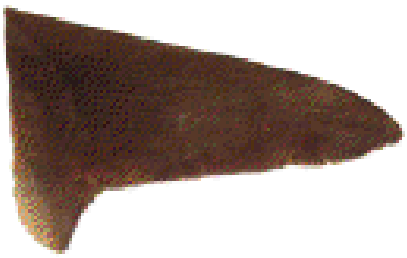
Ventral view (underneath)

The following are the main criteria for identification of fins of **Smooth Hammerhead (*Sphyrna zygaena*)**:

First dorsal fin is tall, sloping more at apex; moderately curved trailing edge (similar to scalloped hammerhead, less slender than great hammerhead 1st dorsal fin). Scalloped and smooth hammerhead first dorsal fins are so similar they are often extremely hard to differentiate. However, it is not uncommon for valuable fins from an individual to be traded as a set (first dorsal, paired pectoral fins and lower caudal lobe). If this is the case, the two species can be distinguished using the pectoral fins.

First dorsal fin

Pectoral fins are short and broad with faint to no marking on ventral side



Dorsal view (top)

Ventral view (underneath)

The main criteria for identification of fins of **Great Hammerhead (*Sphyrna mokarran*)** are illustrated below:

First dorsal fin is tall, slender from leading edge to trailing edge; elongated and pointed at apex. Small to moderate-sized great hammerhead first dorsal fins may be difficult to distinguish from those of the winghead shark (*Eusphyra blochii).* However, wingheads are only found in India, Thailand, Indonesia and Northern Australia and are extremely rare in trade. On a global basis, First dorsal fins with this shape are much more likely to be from great hammerheads than wingheads.

First dorsal fin

Pectoral fins are pointed apex, moderately curved along trailing edge with dusky color at apex on ventral side and often along trailing edge

Dorsal view (top) Ventral view (underneath)

Oceanic whitetip shark (*Carcharhinus longimanus)*

Oceanic whitetip fins are easily identifiable by their white coloring, rounded shape, and large size, as illustrated by the following images:

Source: http://www.dpi.nsw.gov.au/fisheries/info/sharksmart/identifying-sharks

First dorsal fin is large and broadly rounded (paddle-like); mottled white color at apex.

First dorsal fin

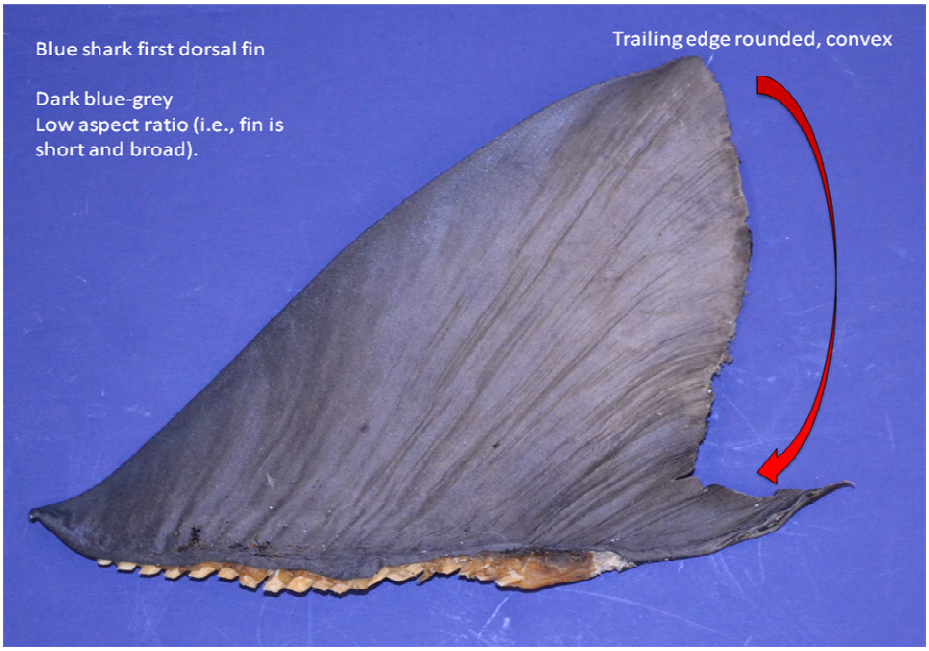
Pectoral fins are long, broadly rounded at apex; dorsal surface has mottled white color at apex; ventral surface is typically white but can have mottled brown coloration. Mottled white color also present on caudal fin (upper and lower lobe). Very small juveniles may have mottled black coloration on dorsal, pectoral and caudal fins

Dorsal view (top)

Ventral view (underneath)

Blue shark (*Prionace glauca*)

Blue shark is one of the most easily recognized sharks. It has a distinct coloration, a deep indigo blue from above and a vibrant blue on its sides, changing to white underneath. The first dorsal fins of the blue shark are very distinctive. They are blue/black with a rounded trailing edge that is quite unique.



The large pectoral fins are also easy to spot as they are as long as the distance between the tip of the snout to the last gill slit.

Porbeagle shark (*Lamna nasus)*

Dorsal fins of porbeagle sharks are easily identifiable as the dorsal fin is not generally uniform in color and has white markings on the free rear tip. First dorsal fins are dark blue/black to dark greyish brown. They have rounded apex with white patch on lower trailing edge onto free rear tip.

Pectoral fins are short, rounded at apex; ventral surface has dusky coloration from apex throughout midsection of fin and along leading edge

Dorsal view (top)

Ventral view (underneath)

More information on the identification for shark fins is available in the following publication: Fisheries Agency of Japan. 1999. Characterization of morphology of shark fin products: a guide of the identification of shark fin caught by tuna longline fishery. Global Guardian Trust, Tokyo.

Proposal: to separate "not frozen" product forms for crustaceans and of "other" product forms for molluscs and other aquatic invertebrates.

HS 2012 Structure

0306.2 to-0306.29	--Not frozen crustaceans
(...)	
0307.19, .29, .39, .49, .59, .79, .89, .99	--Other molluscs
(...)	
0308.19, .29	--Not frozen crustaceans

HS 2017 Proposed Structure

For crustaceans: to separate codes for "not frozen" into

-- Live fresh or chilled (0306.4 to 0306.49)

-- Other (0306.9 to 0306.99)

(...)

For molluscs: to separate codes for "other" into

-- Frozen (0307.12, .22, .32, .43, .52, .72, .83, .84, .94)

-- Other (0307.19, .29, .39, .49, .59, .79, .87, .88, .99)

(...)

For other aquatic invertebrates: to separate codes for "other" into

-- Frozen (0308.12, .22)

-- Other (0308.19, .29)

Supporting information

The split by more detailed product forms for crustaceans, molluscs and other invertebrates has been suggested due to the importance of trade and consumption of these species in the various product forms. Furthermore, for the calculation of the apparent food consumption data, the conversion factors needed to convert trade quantities of cured seafood from product weight into live weight equivalent are significantly higher compared to other product forms. The

proposed divisions would enable a better monitoring of the food situation of the countries. A similar breakdown was already presented in the previous proposal for HS2012. However, at the final vote system it was not approved by the HS Committee with the reasoning that more time was needed to further examine this proposal.

Proposal: to have separate subheadings for crustaceans, molluscs and other aquatic invertebrates for ornamental purposes.

HS 2017 Proposed Structure

To insert codes for:

0306.30 -- Live crustaceans for ornamental purposes

0307.92 -- Live for ornamental purposes

0308.91 -- Live, for ornamental purposes

Supporting information

Trade in species for ornamental purposes for private and public aquarium has increased significantly in recent decades due to improvement in tank technology which has helped the transport of live species. At present, the HS classification covers trade of ornamental fish only (codes 0303.11 and 0303.19). However, trade of crustaceans, molluscs and other aquatic invertebrates represents a significant share of the overall trade in ornamental specimens.
Trade data for ornamental species other than fish are very difficult to obtain. In 2000, the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMCI, the Marine Aquarium Council IMACI and members of various aquarium trade associations started to collaborate in order to address this need for better information by creating the Global Marine Aquarium Database IGMADI. Trade data have been obtained from wholesale exporters and importers of marine aquarium organisms, most often through copies of trade invoices, integrated and standardized into quantitative, species-specific information. In August 2003, the dataset contained 102 928 trade records covering a total of 2 393 species of fish, corals and invertebrates and spanning the years 1988 to 2003. According to the database, more than 500 species of crustaceans, molluscs and aquatic invertebrates (other than corals) were traded as marine ornamentals for a total of 1 271 547 traded between 1998 and 2003, according to exporters' information or 3 071 385 according to records from importers between 1988 and 2002. Since then, the propagation of marine ornamental invertebrates has further advanced and present data are probably higher than those of 2003.

Among crustacean species traded there are shrimps, including cleaner shrimps, crabs, lobsters; for mollusk there are bivalves, gastropods, octopus and for aquatic invertebrates, anemones, sea cucumbers, jellyfish, brittle stars and sea urchins. A more exhaustive list is provided as Annex 1B.

Almost all these aquarium species are taken directly from the wild habitats, with few examples of captive breeding, using often unsuitable methods, resulting in the depletion of marine ecosystems and destruction of coral reefs. There is a pressing need for basic information on the population dynamics and life history characteristics of organisms targeted by the ornamental trade. Combined with accurate trade data, such information is essential for making more substantiated decisions regarding the sustainable collection of marine ornamentals.

Ornamental trade also covers endangered species such as queen conch or giant clam for it is important to monitor trade.

Furthermore, having ornamental crustaceans, molluscs and other aquatic invertebrates separated from the other species for human consumption, would be beneficial for the correct calculation of food balance sheets, thus enabling a better monitoring of the food situation of the countries.

Proposal: to extend the coverage of cuttlefishes and squids.

HS 2012 Structure

0307.4 Cuttle fish (*Sepia officinalis, Rossia macrosoma, Sepiola spp.*) and squid (*Ommastrephes spp., Loligo spp., Nototodarus spp., Sepioteuthis spp.*) :

0307.41 -- Live, fresh or chilled

0307.49 -- Other

HS 2017 Proposed Structure

0307.4 Cuttlefishes and squids:

Then two options

a)

0307.42 -- Live, fresh or chilled

0307.43 -- Frozen

0307.48 -- Other [or 0307.49]

b)

0307.41 -- Live, fresh or chilled Cuttle fish (*Sepia officinalis, Rossia macrosoma, Sepiola spp.*) and squid (*Ommastrephes spp., Loligo spp., Nototodarus spp., Sepioteuthis spp.*) :

0307.42 -- Other live, fresh or chilled

0307.43 -- Frozen

0307.48 -- Other [or 0307.49]

Supporting information

The present codes for cuttlefishes and squids cover only about 50% of total fishery production of these species as well an important share of the species traded. In particular, species of

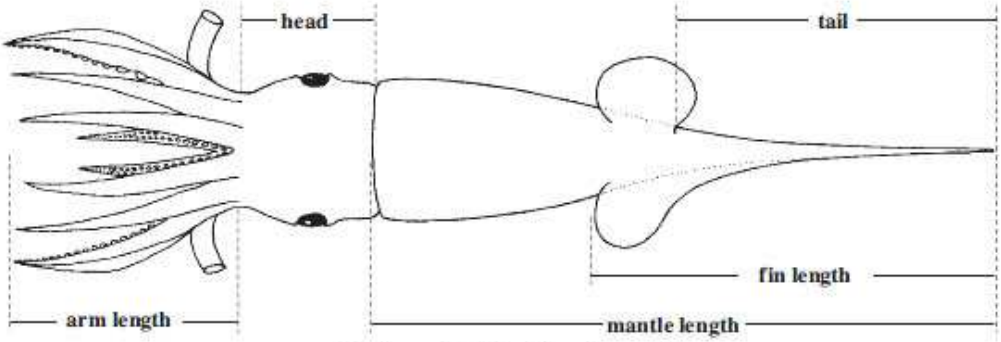
families *Illex* and *Todarodes* are not included, even though widely traded. Therefore, the proposal is to extend the coverage of the present codes for cuttlefishes and squids in order to have all those species grouped. At present, a significant share of cuttlefish and squid trade is recorded under generic codes for molluscs (under 0307.9). Cuttlefishes and squids, as well as other cephalopods, are very important for human consumption. They have been fished on an artisanal basis for several thousand years Catches of cuttlefishes and squids have increased steadily in the last 30 years going from 1.0 million tonnes in 1977 up to 3.6 million tonnes in 2007, which represents the peak yaear. In 2010, their catches slightly decreased to 2.9 million tonnes. International commerce of cephalopod products also increased strikingly during the last 20 years. The number of cephalopod species entering commercial fisheries has continued to grow significantly since 1984, as a result of a still-growing market demand and the expansion of fisheries operations to new fishing areas and to deeper waters. However, having catches of cuttlefishes, squids as well as of other cephalopod species being experiencing further extensive development, parallel concern has emerged regarding potential overexploitation. Fishing pressure on cephalopods has increased and cephalopod resources now are exploited throughout the world oceans. Thus, a broad consensus developed among fishery biologists to apply the experience gained from errors made in finfish management to avoid possible failures in cephalopod exploitation. To help prevent potential failures, refined species identification capabilities are required, as well as a more detailed and accurate compilation of information on cephalopod species, distribution, biology, fisheries and catch and trade statistics.

No order or family names have been suggested for the HS classification for cuttlefishes and squids, but rather to use them in '*sensu lato*' following the approach indicated by the FAO Species Catalogue for Fishery Purposes No. 4, Volumes 1 and 2 on Cephalopods of the world. An annotated and illustrated catalogue of species known to date, in which detailed information on cuttlefishes and squid is included. Both volumes are available for free downloading in pdf from the following FAO web pages:

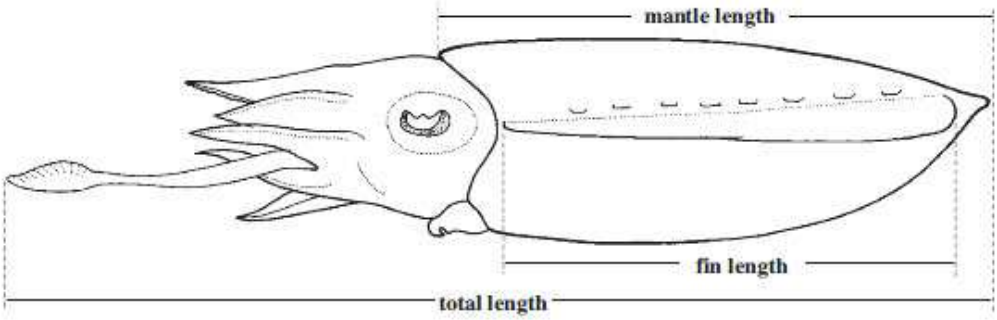
Volume 1, FAO, Rome, 2005.
Chambered Nautiluses and Sepioids. (Nautilidae, Sepiidae, Sepiolidae, Sepiadariidae, Idiosepiidae and Spirulidae)
ftp://ftp.fao.org/docrep/fao/009/a0150e/A0150e00.pdf

Volume 2, FAO, Rome, 2010.
Myopsid and Oegopsid Squids, available at:
http://www.fao.org/docrep/014/i1920e/i1920e.pdf

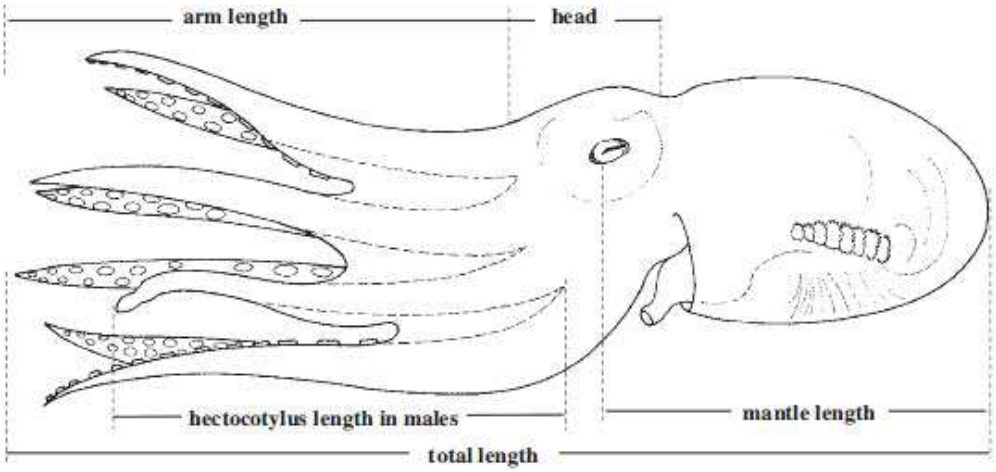
1. 4 Illustrated Glossary of Technical Terms and Measurements



a) Schematic illustration of a squid



b) Schematic illustration of a cuttlefish



c) Schematic illustration of an octopus

Fig. 6

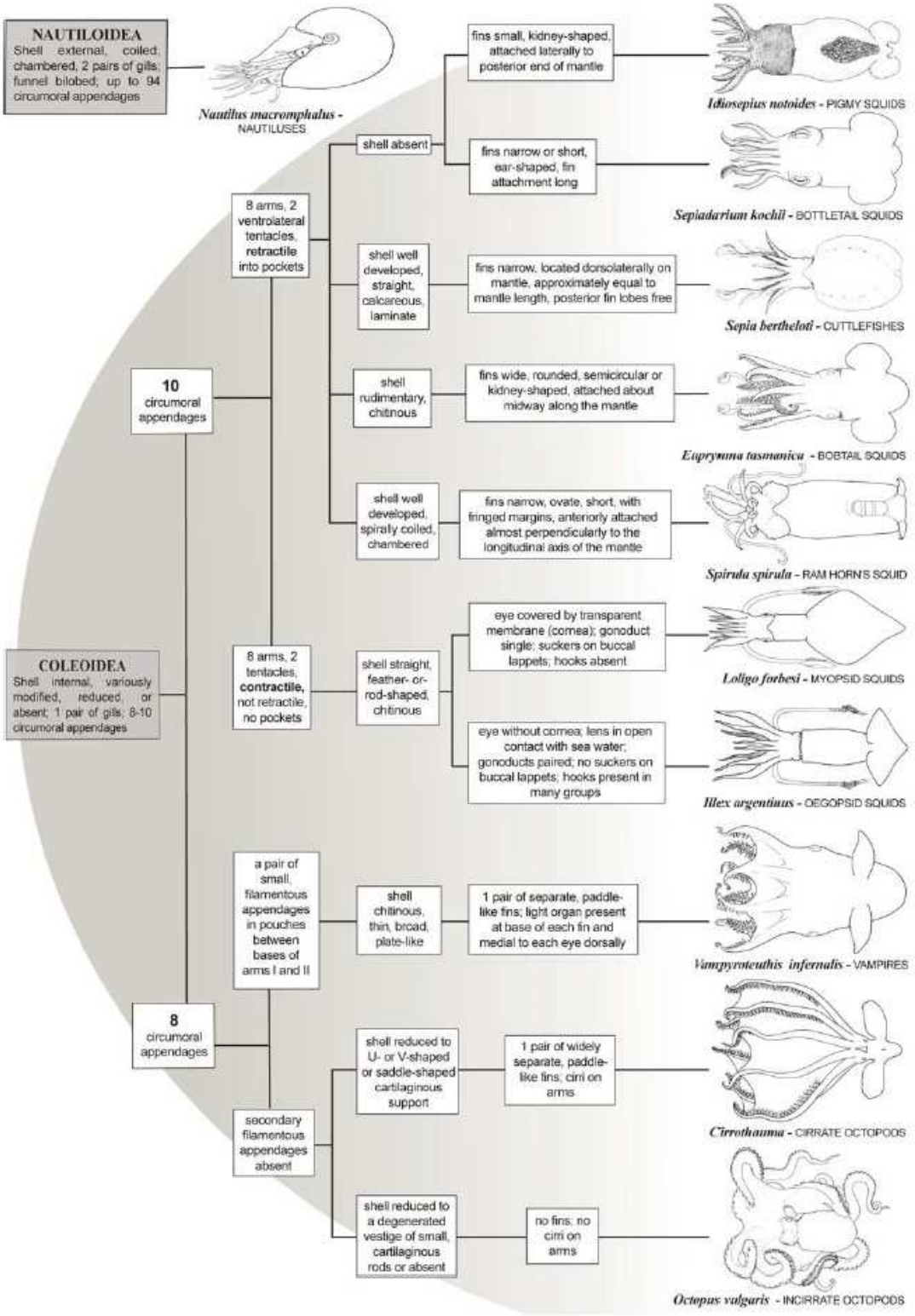


Fig. 2 Living cephalopods

Proposal: to add Stromboid conchs.

HS 2012 Structure

Abalone (*Haliotis* spp.)

0307.81 -- Live, fresh or chilled

0307.89 -- Other

HS 2017 Proposed Structure

Abalone (*Haliotis* spp.) and Stromboid conchs (*Strombus* spp.)

0307.81 -- Live, fresh or chilled Abalone (*Haliotis* spp.)

0307.82 -- Live, fresh or chilled Stromboid conchs (*Strombus* spp.)

0307.83 -- Frozen abalone (*Haliotis* spp.)

0307.84 -- Frozen Stromboid conchs (*Strombus* spp.)

0307.87 -- Other abalone (*Haliotis* spp.)

0307.88 -- Other Stromboid conchs (*Strombus* spp.)

Supporting information

Stromboid conchs are part of the same FAO ISSCAAP (International Standard Statistical Classification of Aquatic Animals and Plants) group named "Abalones, winkles, conchs". They are marine gastropod molluscs. Worldwide, several of the larger species are economically important as food sources, with conch meat eaten by humans for centuries. They are consumed raw, marinated, minced or chopped in a wide variety of dishes. They have traditionally been an important part of the diet in many islands, in particular of the Caribbean. Conch trade monitoring is important in particular for *Strombus gigas,* commonly named as Queen or Pink conch. This is a species of large edible marine gastropod molluscs, one of the largest molluscs native to Western Central/Southern Atlantic. International trade of *Strombus gigas* is listed on Appendix the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) agreement. Species listed in Appendix II may become threatened with extinction if international trade is not regulated. International trade is permitted for Appendix-II species if the exporting country is able to make findings that the

specimen was legally acquired and that the export will not be detrimental to the survival of the species.This species is commercially threatened in numerous areas, largely due to extreme overfishing; the meat is an important food source for humans. The CITES regulations are designed to monitor and control the commercial export of the meat of this species as well as the shells (often sold to be used as decorative objects). Both of these trades were previously so prevalent that they represented serious threats to the survival of the species. However, the CITES Convention does not monitor or regulate any domestic use.

Proposal: to have separate subheadings for live aquatic plants, including seaweeds and algae

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HS 2012 Structure

Other live plants (including their roots), cutting and slips; mushroom spawn

0602.10 -- Unrooted cutting and slips

0602.20 -- Trees, shrubs and bushes, grafted or not, of kinds which bear edible fruit or nuts

0602.30 -- Rhododendrons and azaleas, grafted or not

0602.40 -- Roses, grafted or not

0602.90 -- Other

HS 2017 Proposed Structure

Other live plants (including their roots), cutting and slips; mushroom spawn; live seaweeds and other live algae of a kind used in aquaria

0602.10 -- Unrooted cutting and slips

0602.20 -- Trees, shrubs and bushes, grafted or not, of kinds which bear edible fruit or nuts

0602.30 -- Rhododendrons and azaleas, grafted or not

0602.40 -- Roses, grafted or not

0602.50 -- Aquatic plants, seaweeds and other algae, of a kind used in aquaria

0602.90 -- Other

Supporting information

Notwithstanding, aquatic plants are widely traded in live form, statistics on the amount of transactions are not regularly collected. Trends indicate this trade is significantly expanding, also due to the high prices obtained by some of the species. In particular, live aquatic plants, including algae, are used in private or public aquarium representing a significant share of the overall ornamental trade. They are used to give the aquarium a natural appearance, oxygenate the water, absorb excess nutrients, such as nitrates and phosphates, provide nutrient export and pH stabilization and habitat for fish and for invertebrates. Some aquarium fish and invertebrates also eat live algae. Hobbyists use aquatic plants for aquascaping, of several aesthetic styles. Continuous exploitation of selected species in the wild, may cause considerable damage to the biodiversity of aquatic plants and endanger some. Some species have short stems that grow out of the substrate or live rock. The removal of even one species from the natural communities can disturb the balance in the ecosystem and cause valuable genetic resources to disappear. The most unfortunate part is that many species are collected along with the soil, including live rocks and as consequence other fauna and flora are also affected. Introducing live specimens, into non-natural habitats also increase the risk in bio-security particularly for the possible introduction of diseases and out-burst of alien species when released to external environments. Therefore, obtaining data on aquatic plants traded in live form would be important to monitor the potential impact on bio-diversity, bio-security and monitoring transaction of species.

Among the most popular aquatic plants used in aquarium, there are species of *Anubias*, *Aponogeton*, *Bacopa*, *Cabomba*, *Cryptocoryne*, *Echinodorous*, *Elodea*, *Helantium, Hydrilla*, *Hygrophyla*, *Lagenandra*, *Myriophyllum* and *Vallisneria*. The sword plants (genera *Echinodorus* and *Helanthium*, *Alismataceae*) are among the economically most important ornamental aquatic plants.

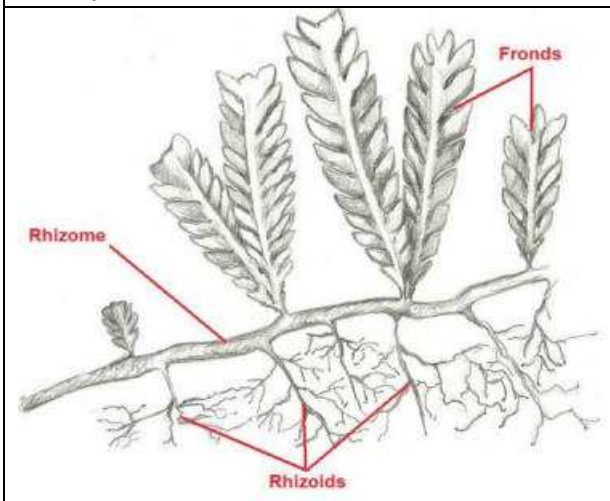
Some picture of selected aquatic plants used in aquarium are reported below:

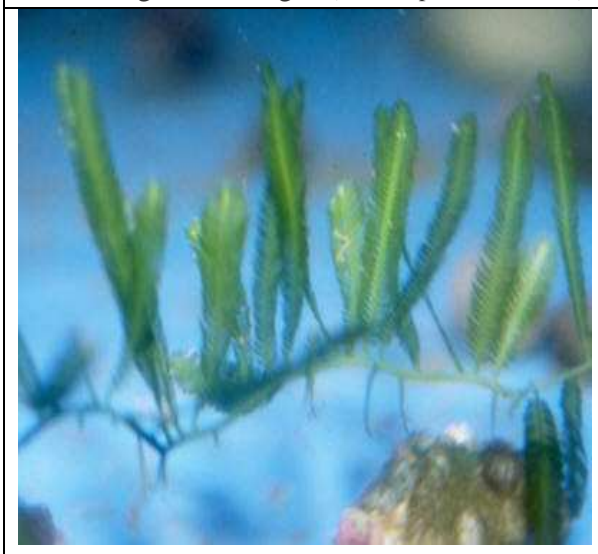
Anubias barteri	*Anubias frazeri*	*Aponogeton undulatus*	*Aponogeton madagascarensis*
			

Catacomba caroliniana	*Cardamine lyrata*	*Cryptocoryne lucens*	*Egeria densa*
			
Microsorum pteropus	*Mayaca fluviatilis*	*Sagittaria subulata*	*Vallisneria spiralis*
			

Among the most popular algae used in aquarium there are: *Gracilaria* spp., *Chlorophyta*, or green algae of the order Bryopsidales, a group that includes some familiar ornamental algae, including *Caulerpa* spp., *Halimeda, Rhipocephalus*, *Chlorodesmis spp.* and *Penicillus.*

Some picture of selected algae used in aquarium are reported below:

Diagram of a typical piece of *Caluerpa* showing the key anatomical features	Green Gracilaria
	

Feather algae, Fern algae (*Caulerpa Mexicana*)	Red Gracilaria
	
Blade algae (*Caulerpa prolifera*)	*Rhipocephalus phoenix*
	

Green Grape Algae, Grapeweed (*Caulerpa racemosa)*	Green Mermaid's Wine Glass *(Acetabularia calyculus*)
	
Caulerpa, Feather Algae (*Caulerpa taxifolia*)	*Halimeda*
	

Saltwater Fern Plant	Shaving hair brush plant (*Penicillus* sp.)
	
Mermaids Fan plant (*Halimedaceae*)	Maidens hair plant (*Chlorodesmis* spp)
	

ANNEX 1B

Selected Species for Ornamental Purposes

Crustaceans

Anemone crab, *Neopetrolisthes ohshimai*
Arrow crab, *Stenorhynchus seticornis*
Blade-eyed hermit crab, *Dardanus lagopodes*
Emerald crab, *Mithraculus sculptus*
Fiddler crab, *Uca sp.*
Pom Pom crab, *Lybia tessellata*
Sally lightfoot crab, *Percnon gibbesi*
Shame faced crab, *Calappa flammea*
Spider decorator crab, *Camposcia retusa*
Tube anemone swimming crab, *Lissocarcinus laevis*
Debelius lobster, *Enoplometopus debelius*
Feather star squat lobster, *Allogalathea elegans*
Red lobster, *Enoplometopus occidentalis*
Spiny lobster, *Panulirus versicolor*
Brine shrimp, *Artemia salina*
Broken-backed shrimp, *Thor amboinensis*
Coral banded shrimp, *Stenopus hispidus*
Camel shrimp, *Rhynchocinetes durbanensis* or *Rhynchocinetes uritai*
Harlequin shrimp, *Hymenocera elegans*
Marble shrimp, *Saron marmoratus*
Peppermint shrimp, *Lysmata wurdemanni complex*
Pistol shrimp, *Synalpheus*
Scarlet cleaner shrimp, *Lysmata debelius* or *Lysmata amboinensis*
Spotted cleaner shrimp, *Periclimenes yucatanicus*

Molluscs

Bivalves
Atlantic Thorny oyster, *Spondylus americanus*
Bear paw clam, *Hippopus hippopus*
Blue clam, Tridacna crocea
China clam, *Hippopus porcellanus*
Flame scallop, *Limaria scabra*
Fluted giant clam,Tridacna squamosa
Gigas aka "Giant" clam, Tridacna gigas
Maxima clam, *Tridacna maxima*

Smooth clam, *Tridacna derasa*

Gastropods

Ass's Ear Abalone, *Haliotis asinina*
Astraea snail, *Astraea tecta*
Bumble bee snail, *Pusiostoma mendicaria*
Nassarius snail, *Nassarius*
Queen conch, *Eustrombus gigas*
Sand conch, *Strombidae*
Tiger cowrie, *Cypraea tigris*
Turban snails, *Turbo*

Cephalopods

Common tropical octopus, *Octopus vulgaris*

Other aquatic invertebrates:

Sea cucumbers

Florida sea cucumber, *Holothuria floridana*
Pink and black sea cucumber, *Holothuria edulis*
Sea apple, *Pseudocolochirus axiologus*
Tiger tail sea cucumber, *Holothuria hilla*
Yellow sea cucumber. *Colochirus robustus*

Starfish

Brittle star, *Ophiomastix*
Bun star, *Culcita novaeguinea*
Chocolate chip sea star, *Protoreaster nodosus*
Feather star, *Himerometra robustipinna*
Blue linckia, *Linckia laevigata*
Mottled Linckia, *Linckia multifora*
Little red star, *Fromia elegans*
Red-knobbed starfish, *Protoreaster linckii*
Sand sifting sea star, *Astropecten polycanthus*

Sea urchins

Globe urchin *Mespilia globulus*
Long spine urchin, *Diadema savignyi*
Pencil urchin, *Eucidaris tribuloides*
Pincushion urchin, *Pseudoboletia maculata*
Slate pencil urchin, *Heterocentrotus mamillatus*
Priest hat urchin, *Tripneustes gratilla*
Variegated urchin, *Lytechinus variegatus*

Appendix 1. Statistical Data

JUSTIFICATION

Type I

Threshold data

Commodities with world trade value (namely data for either import or export) exceeding US$ 50 million for subheadings and US$ 100 million for headings.

Type II

Food security data (fishery products only)

The amendment proposed under type II will help improving analysis of an area's food situation; assist improving analysis of an area's nutritional situation; and improve the understanding of an area's coping mechanisms.

Obtaining data by more detailed species groups and product form will help the application of the right conversion factors to reconvert trade quantities from product weight into live weight equivalent, thus enhancing reconciliation of trade, production and consumption data.

Such data will permit a better assessment of the average per capita supply and the degree of self-sufficiency and provide the basis for estimating the extent to which nutritional supplies derived from fishery products are contributing to adequate nutritional requirements.

Type III

Data on endangered species or stocks in need to be monitored (fishery products only)

The amendment proposed under type III will help improving monitoring of species/stocks.

Type IV

Change of description or addition of new species, product form and numbering (fishery products only)

Fishery products

[Notes: The reported data on trade and production of fisheries commodities included in the proposal and refer to they year 2009. They have been extracted from the Fisheries commodities production and trade database maintained by the FAO Information and Statistics Service of the Fisheries and Aquaculture Department (FIPS). This world fishery trade database has a detail of about 900 fish and fishery products. Data are collected at the most exhaustive level at which national data are reported. Unfortunately, many countries report data only at six digit level and often under the sub-headings "others". Trade data presented by individual commodity item are very likely to be underestimated. Price refers to the unit value of exports. For several species, no support statistics were readily available. Proposed changes for text of subheadings have not been included and namely for 0302.4, 0302.7, 0303.2, 0303.5, 0304.3 and 0304.6]

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
Chapter 03								
0301								
	Live fish							
1	[Carp and other Cyprinidae (*Cyprinidae*)] or [Carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus*, *Catla catla*, *Labeo rohita*, *Osteochilus hasselti*, *Leptobarbus hoeven*, *Hypselobarbus jerdoni*, *Megalobrama amblycephala*)]	0301.99*	0301.93					Type IV
0302								
	Fish, fresh or chilled, excluding fish fillets and other fish meat of heading 03.04							
2	Other	0302.89*	0302.49	45.0	50.0		1 180	Type I and IV
3	[Carp and other Cyprinidae (*Cyprinidae*)] or [Carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus*, *Catla catla*, *Labeo rohita*, *Osteochilus hasselti*, *Leptobarbus hoeven*, *Hypselobarbus jerdoni*, *Megalobrama amblycephala*)]	0302.89*	0302.73					Type IV

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
0303								
	Fish, frozen excluding fish fillets and other fish meat of heading 03.04							
4	[Carp and other Cyprinidae (*Cyprinidae*)] or [Carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus*, *Catla catla*, *Labeo rohita*, *Osteochilus hasselti*, *Leptobarbus hoeven*, *Hypselobarbus jerdoni*, *Megalobrama amblycephala*)]	0303.89*	0303.25					Type IV
5	Other	0303.89*	0303.59	300.0	308.0	800 000	830.0	Type I and IV
	Livers, roes, milt, fish fins, heads, tails, maws and other edible fish offal							
6	Livers, roes and milt	0303.90	0303.91					Type IV
7	Shark fins	0303.89*	0303.92		20.0		28 439	Type III
8	Other *fins, heads, tails, maws and other edible offal	0303.89*	0303.99		144.0		20 020	Type I and II
0304								
	Fresh or chilled fillets of other fish							
9	Dogfish and other sharks	0304.49*	0304.47					Type I and III
10	Rays and skates (*Rajidae*)	0304.49*	0304.48					Type I and III

	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
	Other fresh or chilled							
11	Tilapias (*Oreochromis spp.*), catfish (*Pangasius spp.*, *Silurus spp.*, *Clarias spp.*, *Ictalurus spp.*), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla, Labeo rohita, Osteochilus hasselti, Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp.*), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*)	0304.59*	0304.51					Type IV
12	Dogfish and other sharks	0304.59*	0304.56					Type III
13	Rays and skates (*Rajidae*)	0304.69*	0304.57					Type III
	Frozen fillets of other fish							
14	Dogfish, other sharks, rays and skates (*Rajidae*)	0304.89*	0304.88					Type III
	Other frozen							
15	Tilapias (*Oreochromis spp.*), catfish (*Pangasius spp.*, *Silurus spp.*, *Clarias spp.*, *Ictalurus spp.*), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla, Labeo rohita, Osteochilus hasselti, Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp.*), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*)	0304.99*	0304.93					Type IV
16	Dogfish and other sharks,	0304.99*	0304.96					Type III

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
17	Rays and skates (*Rajidae*)	0304.99*	0304.97					Type III
0305								
	Fish fillets, dried, salted or in brine, but not smoked							
18	Tilapias (*Oreochromis spp.*), catfish (*Pangasius spp.*, *Silurus spp.*, *Clarias spp.*, *Ictalurus spp.*), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla, Labeo rohita, Osteochilus hasselti, Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp.*), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*)	0305.39*	0305.31					Type IV
	Smoked fish, including fillets, other than edible fish offal							
19	Tilapias (*Oreochromis spp.*), catfish (*Pangasius spp.*, *Silurus spp.*, *Clarias spp.*, *Ictalurus spp.*), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla, Labeo rohita, Osteochilus hasselti, Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp.*), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*)	0305.49*	0305.44					Type IV
	Dried fish, other than edible fish offal, whether or not salted but not smoked							
20	Tilapias (*Oreochromis spp.*), catfish (*Pangasius spp.*, *Silurus spp.*, *Clarias spp.*, *Ictalurus spp.*), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla*, *Labeo rohita*, *Osteochilus hasselti*, *Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp.*), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*)	0305.59*	0305.52					Type II

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
21	Fish of the families *Bregmacerotidae*, *Euclichthyidae*, *Gadidae*, *Macrouridae*, *Melanonidae*, *Merlucciidae*, *Moridae* and *Muraenolepididae*, other than Cod (*Gadus morhua, Gadus ogac, Gadus macrocephalus*)	0305.59*	0305.53	120.0	260.0	115.0		Type I
22	Herrings (*Clupea harengus*, *Clupea pallasii*), anchovies (*Engraulis spp.*), sardines (*Sardina pilchardus*, *Sardinops spp.*), sardinella (*Sardinella spp.*), brisling or sprats (*Sprattus sprattus*), mackerel (*Scomber scombrus*, *Scomber australasicus*, *Scomber japonicus*), Indian mackerels (*Rastrelliger* spp.), seerfishes (*Scomberomorus* spp), jack and horse mackerel (*Trachurus spp.*), jacks, crevalles (*Caranx* spp.), cobia (*Rachycentron canadum*), silver pomfrets (*Pampus* spp.), Pacific saury (*Cololabis saira*), scads (*Decapterus* spp.), capelin (*Mallotus villosus*), swordfish (*Xiphias gladius*), Kawakawa (*Euthynnus affinis*), bonitos (*Sarda* spp.), marlins, sailfishes, spearfish (*Istiophoridae*)	0305.59*	0305.54	55.0	50.0	208.0		Type I
	Fish, salted but not dried or smoked and fish in brine, other than edible fish offal							
23	Tilapias (*Oreochromis spp.*), catfish (*Pangasius spp.*, *Silurus spp.*, *Clarias spp.*, *Ictalurus spp.*), [carp and other Cyprinidae (*Cyprinidae*)] or [carp (*Cyprinus carpio*, *Carassius carassius*, *Ctenopharyngodonidellus*, *Hypophthalmichthys spp.*, *Cirrhinus spp.*, *Mylopharyngodon piceus, Catla catla, Labeo rohita, Osteochilus hasselti, Leptobarbus hoeven, Hypselobarbus jerdoni, Megalobrama amblycephala*)], eels (*Anguilla spp.*), Nile perch (*Lates niloticus*) and snakeheads (*Channa spp.*)	0305.69*	0305.64					Type IV

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
	Shark fins							
24	Dried, whether or not salted, fins of hammerhead sharks (*Sphyrnidae*), with skin and cartilage	0305.71*	0305.73					Type III
25	Dried, whether or not salted, fins of oceanic whitetip shark (*Carcharhinus longimanus*), with skin and cartilage	0305.71*	0305.74					Type III
26	Dried, whether or not salted, fins of blue shark (*Prionace glauca*), with skin and cartilage	0305.71*	0305.75					Type III
27	Dried, whether or not salted, fins of porbeagle shark (*Lamna nasus*), with skin and cartilage	0305.71*	0305.76					Type III
28	Other shark fins	0305.71*	0305.77	289.0	172.0	4 418	19 423	Type I and III
0306								
	Live , fresh or chilled							
29	Ornamental crustaceans, live	0306.21*,.22*,.24*,.25*,.26*, .27*,.29*	0306.30					Type II and III
30	Rock lobster and other sea crawfish (*Palinurus* spp., *Panulirus* spp., *Jasus* spp.)	0306.21*	0306.41	725.4	809.0		18 808	Type I and II
31	Lobsters (Homarus spp.)	0306.22*	0306.42	110.0	300.0		13 108	Type I and II
32	Crabs	0306.24*	0306.43	467.0	320.0		3 950	Type I and II
33	Norway lobster (*Nephrops norvegicus*)	0306.25*	0306.44	139.0	110.0		11 650	Type I and II
34	Cold-water shrimps and prawns (*Pandalus* spp., *Crangon crangon*)	0306.26*	0306.45	130.0	200.0		6 476	Type I and II
35	Other shrimps and prawns	0306.27*	0306.46	350.0	450.0		4 357	Type I and II

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
36	Other, including flours, meals and pellets of crustaceans, fit for human consumption	0306.29*	0306.49	50.0	70.0		4 356	Type I and II
	Other							
37	Rock lobster and other sea crawfish (*Palinurus* spp., *Panulirus* spp., *Jasus* spp.)	0306.21*	0306.91					Type II
38	Lobsters (*Homarus* spp.)	0306.22*	0306.92					Type II
39	Crabs	0306.24*	0306.93	58.0	55.0		11 122	Type I and II
40	Norway lobster (*Nephrops norvegicus*)	0306.25*	0306.94					Type II
41	Shrimps and prawns	0306.26*, .27*	0306.95	56.0	50.0	88 000	6 279	Type I and II
42	Other, including flours, meals and pellets of crustaceans, fit for human consumption	0306.29*	0306.99					Type II
0307								
	Oysters							
43	Frozen	0307.19*	0037.12				4 711	Type II
44	Other	0307.19*	0037.19				17 410	Type II and IV
	Scallops, including queen scallops, of the genera *Pecten*, *Chlamys* or *Placopecten*							
45	Frozen	0307.29*	0307.22	177.0	226.0		8 564	Type I and II
46	Other	0307.29*	0307.29	128.0	130.0		27 619	Type I, II and IV
	Mussels (*Mytilus* spp., *Perna* spp.)							
47	Frozen	0307.39*	0307.32	100	120.0		3 496	Type I and II
48	Other	0307.39*	0307.39				21 968	Type II and IV

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
	Cuttlefishes and squids							
49	Live, fresh or chilled	0307.41*, .91*	0307.42					Type IV
50	Frozen	0307.49*, .99*	0307.43	1906.0	1600.0	745 000	1 809	Type I and II
51	Other	0307.49*, .99*	0307.49	81.0	90.0	38 382	3 028	Type I, II and IV
	Octopus (*Octopus* spp.)							
52	Frozen	0307.59*	0307.52	1120.0	800.0	200 000	4 857	Type I and II
53	Other	0307.59*	0307.59				5 840	Type II and IV
	Clams, cockles and ark shells (families *Arcidae*, *Arcticidae*, *Cardiidae*, *Donacidae*, *Hiatellidae*, *Mactridae*, *Mesodesmatidae*, *Myidae*, *Semelidae*, *Solecurtidae*, *Solenidae*, *Tridacnidae* and *Veneridae*)							
54	Frozen	0307.79*	0307.72	90.0	95.0	130 000	4 858	Type I and II
55	Other	0307.79*	0307.79				1 588	Type II and IV
	Abalone (*Haliotis* spp.) and Stromboid conchs (*Strombus* spp)							
56	Live, fresh or chilled Abalone (*Haliotis* spp.)	0307.81	0307.81	110	121.0		33 489	Type I and II
57	Live, fresh or chilled Stromboid conchs (*Strombus* spp.)	0307.91*	0307.82				5 573	Type III
58	Frozen Abalone (*Haliotis* spp.)	0307.89*	0307.83	50	50.0		41 202	Type I and II
59	Frozen Stromboid conchs (*Strombus* spp.)	0307.99*	0307.84				6 283	Type III
60	Other Abalone (*Haliotis* spp.)	0307.89*	0307.87				41 892	Type II

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
61	Other Stromboid conchs (*Strombus* spp.)	0307.99*	0307.88					Type III
	Other, including flours, meals and pellets, fit for human consumption							
62	Ornamental molluscs, live	0307.11*, .21*, .51*, .71*, .81*, .91	0307.92					Type II and III
63	Other live, fresh or chilled	0307.91*	0307.93	60.0	102.0			Type II
64	Frozen	0307.99*	0307.94	55.0	70.0			Type II
65	Other	0307.99*	0307.99	50.0	50.0			Type II and IV
66	Frozen	0308.19*	0308.12				12 415	Type II
67	Other	0308.19*	0308.19	253.0	71.0	1 710	10 484	Type I, II and IV
68	Frozen	0308.29*	0308.22	64.0	55.0	4 470	27 352	Type I and II
69	Other	0308.29*	0308.29			1 709	39 071	Type II and IV
	Other							
70	Ornamental aquatic invertebrates other than crustaceans and molluscs, live	0308.11*, .21*, .90*	0308.91					Type II and III
71	Other	0308.90*	0308.99					Type IV
Chapter 06								
0602								
	Other live plants (including their roots), cuttings and slips; mushroom spawn; live seaweeds and other live algae of a kind used in aquaria							
72	Aquatic plants, seaweeds and other algae, of a kind used in aquaria	0602.90*	0602.50					Type III

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (t)	Price (US$/t)	Justifications
Chapter 16								
1604								
	Prepared or preserved fish; caviar and caviar substitutes prepared from fish eggs							
73	Shark fins	1604.19*	1604.18	40	40		5 519	Type III

CITRUS FRUIT

Proposal: to increase detail on mandarins, tangerines, clementines, and other similar fresh or dried citrus hybrids.

HS 2012 Structure

08.05		Citrus fruit, fresh or dried.
	0805.20	- Mandarins (including tangerines and satsumas); clementines, wilkings and similar citrus hybrids.

HS 2017 Proposed Structure

08.05		Citrus fruit, fresh or dried.
		- Mandarins (including tangerines and satsumas); clementines, wilkings and similar citrus hybrids :
	0805.21	**-- Mandarins**
	0805.22	**-- Tangerines**
	0805.23	**-- Clementines**
	0805.29	**-- Other**

Supporting information

The subheadings cover mandarins, tangerines, clementines, and other citrus fruit and citrus hybrids:

0805.21 – Mandarins (including satsumas)

Mandarins (*Citrus reticulata*) may be distinguished from ordinary oranges by their smaller, flattened shape, by easier peeling, by a more distinct division of their segments and by their sweeter and more perfumed taste. Satsumas (*Citrus reticulata Blanco* var. *unshiu (Swing)*) are an early variety of mandarin. The fruit is large, yellow-orange in colour, juicy, non-acid and without pips.

(Source: wikipedia.org)

(Source: users.kymp.net)

0805.22 - Tangerines

Tangerines (*Citrus reticulata Blanco* var. *tangerina*) is a hybrid of the mandarin with orange. The shape is round and slightly smaller than oranges, peel, bright orange or red colour, the stalk leaves a small bump (as in some lemon) and the leaves are wider than Mandarin. It peels easily, and the taste is less acid than other Citrus.

0805.23 – Clementines

Clementines (*Citrus reticulata, Blanco*) may be distinguished from mandarins by the colour of the flesh, much more orange, and a smoother and glossy peel. It is never flattened as mandarins, but well rounded and is smaller than mandarins. As the mandarin peels and is divided into sections with ease. The taste is rather more orange-like, with a perfect balance between sour and sweet. It is almost always seedless.

(Source: wikipedia.org)

(Source: users.kymp.net)

0508.29 – Other (including wilkings and tangelos)

Other fresh or dried citrus hybrids includes: wilkings (or kinnow, a hybrid of the citrus cultivar king (*Citrus nobilis*) and willow leaf (*Citrus deliciosa*)), tangelos (hybrids of tangerine and grapefruit, including pomelos), ortaniques (hybrids of orange and tangerine), malaquinas (hybrids of orange and mandarin), tangors (cross between an orange and a tangerine), page (hybrid of the clementine and the minneola tangelo), natsumikan, natsudaidai (result of a probable union between the pomelo or sour orange and a mandarin), nocatee (hybrid of any mandarin and a grapefruit or pomelo).

A break-down similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union. Citrus fruit traded by the European Union accounted for around **US$ 4 billion**[5] in 2010 (data reported in Appendix 2).

Some examples of trade nomenclatures where more detailed information on citrus fruit is available:

THE COMBINED NOMENCLATURE OF THE EUROPEAN UNION

0805	Citrus fruit, fresh or dried
0805 20 10	Clementines
0805 20 30	Monreales and satsumas
0805 20 50	Mandarins and wilkings
0805 20 70	Tangerines
0805 20 90	Other

(Source: http://ec.europa.eu/)

THE HARMONIZED TARIFF SCHEDULE OF THE UNITED STATES

0805.20.00	Mandarins (including tangerines and satsumas); clementines, wilkings and similar citrus hybrids
0805.20.00.20	Tangerines
0805.20.00.60	Clementines
0805.20.00.80	Other

(Source: http://www.usitc.gov/publications/docs/tata/hts/bychapter/120PC08.pdf)

THE INTERNATIONAL CUSTOMS JOURNAL - CHILE

0805.20	Mandarins (including tangerines and satsumas); clementines, wilkings and similar citrus hybrids
0805.2010	Mandarins
0805.2020	Clementines
0805.2090	Other

(Source: http://www.bitd.org/)

[5] 2010 data (Eurostat) converted from Euro to US$ (exchange rate applied 1 EURO = 1.29 US$ -as per IMF, 02/10/2012-)

Appendix 2. Statistical Data

JUSTIFICATION

Type I Threshold data
Commodities with world trade value (namely data for either import or export) exceeding US$ 50 million for subheadings and US$ 100 million for headings.

Citrus fruit
[Notes:
1. Export and import value data are for the year 2010 and refer to European Community (EU 27) (Source: Eurostat http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database).
2. Original data expressed in Euro; exchange rate applied 1 EURO = 1.29 US$ (as per IMF, 02/10/2012).]

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (million US$)	Export (million US$)	Justification
	TOTAL mandarins (including tangerines and satsumas); clementines, wilkings and similar citrus hybrids:	**0805.20***	**0805.2**	**2,067**	**2,114**	
1	Mandarins and wilkings	0805.20*	0805.21	331	197	Type I
2	Monreales and satsumas	0805.20*	0805.21	170	99	Type I
3	Tangerines	0805.20*	0805.22	25	81	Type I
4	Clementines	0805.20*	0805.23	1,354	1,557	Type I
5	Other	0805.20*	0805.29	186	179	Type I

FERTILIZERS

RATIONALE

Availability of fertilizers in countries is becoming a critical issue while to get detailed data is extremely important to estimate the country potential productivity. Indeed, reduced availability of fertilizers can have a negative impact on crop yield and production; reduced internal food supply can generate price increases affecting food consumption and security. Furthermore, fertilizer production and use contribute directly to emissions of greenhouse gases (GHGs). To get detailed information and to monitor production, consumption and trade of fertilizers is fundamental for estimating greenhouse gases (GHG) emission and agriculture contribution to climate change.

SUPERPHOSPHATES

Proposal: to create two new sub-headings for superphosphate, according to different diphosphorus pentaoxide (P_2O_5) concentrations (above or below 35% by weight).

HS 2012 Structure

31.03		Mineral or chemical fertilisers, phosphatic.
	3103.10	- Superphosphates

HS 2017 Proposed Structure

31.03		Mineral or chemical fertilisers, phosphatic.
		- Superphosphates
	3103.11	**- - Superphosphate, containing more than 35% by weight of diphosphorus pentaoxide (P_2O_5)**
	3103.19	**- - Other (containing less than 35% by weight of diphosphorus pentaoxide (P_2O_5)**

Supporting information

The subheadings cover superphosphates (single, double or triple) (soluble phosphates):

(A) Superphosphate containing more than 35% by weight of diphosphorus pentaoxide (P_2O_5) (double and triple superphosphates) is obtained by the action of sulphuric and phosphoric acid on natural phosphates or powdered bone.

(B) Superphosphates, containing less than 35% by weight of diphosphorus pentaoxide, (P_2O_5) (single superphosphate) is obtained by the action of sulphuric acid on natural phosphates or powdered bone.

By grouping superphosphates according to P_2O_5 concentration, the proposed break-down will allow a more accurate estimation of nutrients supplied to the soil, providing crucial information on yield and soil productivity.

Phosphorus (P) is one of the primary macronutrients derived from soil and nutrients are essential for the plants growth. Different grades[6] of superphosphates' (i.e. single, double and triple) correspond to different manufacturing process and concentrations of nutrients. This is also reflected in a significant difference in the price (one being the double of the other as show in Appendix 3). Double and triple (TSP) are obtained by the action of *sulphuric and phosphoric* acid on natural phosphates or powdered bone; the typical P_2O_5 content corresponds to **46%**. Single (SSP) is obtained by the action of *sulphuric* acid on natural phosphates or powdered bone; the typical P_2O_5 content corresponds to **18%**[7].

Since 2002 the FAO has been collecting data on Superphosphates consistently with the break-down proposed[8] i.e. according to different phosphorus pentoxide concentrations (P_2O_5 above and below 35%). In the FAOSTAT system trade data on superphosphates are available for about 140, and detail on different P_2O_5 concentration is provided for more than 90 (Appendix 3).

Superphosphates market is estimated to be more than US$ 3 billion[9]. In 2009, the exports of superphosphates with a P_2O_5 concentration above 35% exceeded US$ 1 billion[10].

Some examples of trade nomenclatures where a similar breakdown is applied are reported below:

[6]Grade is an expression used in extension and fertilizer trade referring to the legal guarantee of the available plant nutrients expressed as percentage by weight in a fertilizer, www.fao.org/ag/agp/ipns/index_en.jsp?term=f075&letter=f

[7] Source: the FAO Economic and Social Development Paper: Manual on Fertilizer Statistics, www.fao.org/fileadmin/templates/ess/ess_test_folder/Publications/ManualFertilizers.pdf.

[8] The Questionnaire on Agricultural Resources is available on the FAO website www.fao.org/fileadmin/templates/ess/ess_test_folder/Questionnaires/Fertilizers/FAO_Fertilizer_Questionnaire2011-_English.xls

[9]International Fertilizers Association Statistics (www.fertilizer.org)

[10] FAOSTAT.

THE COMBINED NOMENCLATURE OF THE EUROPEAN UNION

3103 10	Superphosphates
3103 10 10	Containing more than 35% by weight of diphosphorus pentaoxide
3103 10 90	Other

(Source: http://ec.europa.eu/)

THE MERCOSUR COMMON NOMENCLATURE (Argentina, Brazil and Uruguay)

3103.10	Superphosphates
3103.10.10	Containing not more than 22% by weight of phosphorus pentaoxide (P_2O_5)
3103.10.20	Containing more than 22% but not more than 45% by weight of phosphorus pentaoxide (P_2O_5)
3103.10.30	Containing more than 45% by weight of phosphorus pentaoxide (P_2O_5)

(Source: www.bitd.org/Search.aspx)

THE HARMONIZED TARIFF SCHEDULE OF THE UNITED STATES

	Superphosphates
3103.10.10	Normal and enriched superphosphates, less than 40% available phosphorus pentaoxide (P_2O_5) equivalent
3103.10.20	Concentrated superphosphates, 40% or more available phosphorus pentaoxide (P_2O_5) equivalent

(Source: www.usitc.gov/publications/docs/tata/hts/bychapter/120Pc31.pdf)

CUSTOMS TARIFF OF THE AZERBAIJAN REPUBLIC

3103.10	Superphosphates
3103 10 10 00	With a pentaoxide diphosphorus content exceeding 35% by weight
3103 10 90 00	Other

(Sources: http://www.az-customs.net/en/zakon.htm)

Appendix 3. Statistical Data

JUSTIFICATION

Type I Threshold data
Commodities with world trade value (namely data for either import or export) exceeding US$ 50 million for subheadings and US$ 100 million for headings.

Fertilizers
[Notes:
1. For fertilizers, data have been estimated using quantity data (t) reported by 44 countries for the year 2009 (FAOSTAT) and data on prices for the year 2011 (World Bank Pink Sheet - TSP price; CRU Group - estimates on SSP price -).]

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Price (US$/t)	Justifications
1	Superphosphate, containing more than 35% by weight of diphosphorus pentaoxide (P_2O_5)	3103.10*	3103.11	934.1	1462.7	538.3	Type I
2	Other (containing less than 35% by weight of diphosphorus pentaoxide (P_2O_5))	3103.10*	3103.19	79.7	39.6	240.0	Type I

FORESTRY PRODUCTS

For forestry products, the proposal has been developed in cooperation with Eurostat (Statistical Office of the European Communities) Forestry Statistics Unit, ITTO (International Tropical Timber Organization) and UNECE (United Nations Economic Commission for Europe) Forestry and Timber Section. These four international agencies form the Inter-Secretariat Working Group on Forest Sector Statistics[11] that jointly collects statistics on production and international trade of forest products since 1990s.

RATIONALE:

There has been a dramatic growth in international trade in forest products which was worth over US$ 227 billion in 2010, up by 50%, since 2000. Due to the importance of the HS in the collection of trade statistics, the current FAO proposal for forestry products aims at one main area: enhancement of the coverage of wood species in order to get a better picture of trade patterns, including endangered species. In particular, separating the data on tropical trade will both servce to focus attention on the important issue of tropical wood use and clarify data on non-tropical hardwoods. The FAO Forestry proposal focuses on getting more detailed breakdown for HS commodities with global exports over US$ 45 billion in 2010. Detailed data on wood products are extremely important for estimating raw material and product balances, energy balances, carbon sinks/emissions and measuring carbon in harvested wood products in the forestry sector.

[11] For more information see: http://www.unece.org/index.php?id=23657

Proposal: to enlarge the coverage of tropical wood species included in subheadings 4403.41 to 4403.49, 4407.21 to 4407.29, 4408.31 to 4408.39 and 4412.31 by revising subheading note 2 to the chapter 44. As a consequence, the new note will generate a change in the scope of 4403.99, 4407.99, 4408.90, 4409.29 (that will exclude added tropical wood species).

HS 2012 Structure

2.- For the purposes of subheadings 4403.41 to 4403.49, 4407.21 to 4407.29, 4408.31 to 4408.39 and 4412.31, the expression "tropical wood" means one of the following types of wood :

Abura, Acajou d'Afrique, Afrormosia, Ako, Alan, Andiroba, Aningré, Avodiré, Azobé, Balau, Balsa, Bossé clair, Bossé foncé, Cativo, Cedro, Dabema, Dark Red Meranti, Dibétou, Doussié, Framiré, Freijo, Fromager, Fuma, Geronggang, Ilomba, Imbuia, Ipé, Iroko, Jaboty, Jelutong, Jequitiba, Jongkong, Kapur, Kempas, Keruing, Kosipo, Kotibé, Koto, Light Red Meranti, Limba, Louro, Maçaranduba, Mahogany, Makoré, Mandioqueira, Mansonia, Mengkulang, Meranti Bakau, Merawan, Merbau, Merpauh, Mersawa, Moabi, Niangon, Nyatoh, Obeche, Okoumé, Onzabili, Orey, Ovengkol, Ozigo, Padauk, Paldao, Palissandre de Guatemala, Palissandre de Para, Palissandre de Rio, Palissandre de Rose, Pau Amarelo, Pau Marfim, Pulai, Punah, Quaruba, Ramin, Sapelli, Saqui-Saqui, Sepetir, Sipo, Sucupira, Suren, Tauari, Teak, Tiama, Tola, Virola, White Lauan, White Meranti, White Seraya, Yellow Meranti.

HS 2017 Proposed Structure

2.- For the purposes of subheadings 4403.41 to 4403.49, 4407.21 to 4407.29, 4408.31 to 4408.39, **4409.22** and 4412.31, the expression "tropical wood" means one of the **types of wood listed in the Annex to Chapter 44.**

Supporting information

The list of tropical tree species was incomplete in the previous versions of HS. There are about 6000 tropical tree species. Wood of the species in the revised list (Annex to Chapter 44) is estimated to account for about 90% of global tropical wood international trade value (source: ITTO). For the sake of practicality (as proposed by several delegates during 43rd session HS Review Sub-Committee), the revised list of tropical tree species by pilot, scientific and local name is presented in the updated Annex to Chapter 44 (see Annex to FAO Forestry proposal). Additional tropical tree species in the annex were drawn from Association Technique Internationale des Bois Tropicaux (ATIBT) "Nomenclature des noms pilotes de l'ATIBT", Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)[12], International Tropical Timber Organization (ITTO) "Annual Review and Assessment of the world timber situation" (various issues 2000-2010)[13], International Tropical Timber Organization (ITTO) "Status of Tropical Forest Management 2005 and 2011"[14] and other sources.

[12] http://tropix.cirad.fr/

[13] http://www.itto.int/annual_review/

[14] http://www.itto.int/sfm/

Proposal: to refine the structure of the present heading 4401 by expanding subheadings 4401.10 and 4401.30.

HS 2012 Structure

44.01		Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms; wood in chips or particles; sawdust and wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms.
	4401.10	- Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms
		-Wood in chips or particles :
	4401.21	-- Coniferous
	4401.22	-- Non-coniferous
		- Sawdust and wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms :
	4401.31	-- Wood pellets
	4401.39	-- Other

HS 2017 Proposed Structure

44.01		Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms; wood in chips or particles; sawdust and wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms.
		- Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms
	4401.11	**-- Coniferous**
	4401.12	**-- Non-coniferous**
		-Wood in chips or particles :
	4401.21	-- Coniferous
	4401.22	-- Non-coniferous
		- Sawdust and wood waste and scrap, agglomerated in logs, briquettes, pellets or similar forms :
	4401.31	-- Wood pellets
	4401.32	**-- Other**
	4401.40	**- Sawdust and wood waste and scrap, not agglomerated**

Supporting information

The proposal is to split fuel wood (4401.10, trade US$ 395 million in 2010) by coniferous and non-coniferous due to the high (and increasing) international trade. Sawdust and wood waste and scrap would be split by two major groups of products: agglomerated (pellets, briquettes, logs, etc.) and not agglomerated. The current subheading 4401.39 includes commodities with very different price level (agglomerated vs. not agglomerated) and makes it difficult to estimate wood use, price level for commodities under this subheading. Agglomerated by-products (pellets, briquettes, logs) are relatively new commodities, their trade has grown exponentially over the last decade (trade above US$ 1.0 billion in Europe only in 2010).

Proposal: to create two new subheadings for coniferous and non-coniferous species under 4403.10

HS 2012 Structure

44.03		Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.
	4403.10	- Treated with paint, stains, creosote or other preservatives

HS 2017 Proposed Structure

44.03		Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.
		- Treated with paint, stains, creosote or other preservatives
	4403.11	**-- Coniferous**
	4403.12	**-- Non-coniferous**

Supporting information

The proposal is to split subheading 4403.10 by coniferous and non-coniferous due to the high level of global international trade (US$ 339 million in 2010).

Proposal: to create six new subheadings for coniferous wood in the rough under 4403.20

HS 2012 Structure

44.03		Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.
	(…)	
	4403.20	- Other, coniferous

HS 2017 Proposed Structure

44.03		Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.
	(…)	
		- Other, coniferous :
	4403.21	**-- Of pine (*Pinus spp.*), with a diameter of 15 cm or more [of which any cross-sectional dimension is 15 cm or more]**
	4403.22	**-- Of pine (*Pinus spp.*), other**
	4403.23	**-- Of fir (*Abies spp*) and spruce (*Picea spp.*), with a diameter of 15 cm or more [of which any cross-sectional dimension is 15 cm or more]**
	4403.24	**-- Of fir (*Abies spp.*) and spruce (*Picea spp.*), other**
	4403.25	**-- Other, with a diameter of 15 cm or more [of which any cross-sectional dimension is 15 cm or more]**
	4403.26	**-- Other**

Supporting information

The proposal is to expand subheading 4403.20 by species and size due to the high level of global international trade (US$ 7.7 billion in 2010). A breakdown similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union, also in national extended versions of HS in Russian Federation and other countries. WCO secretariat expressed preference to the use of term “cross-sectional dimension” instead of “diameter” (presented in brackets as an alternative) – FAO agrees with any of these options (to be decided by HS Review Sub-Committee).

Proposal: to create six new subheadings for non-coniferous wood in the rough under 4403.9. As a consequence, the new subheadings will generate a change in the scope of 4403.99 (that will exclude wood of birch, poplar / aspen and eucalyptus species).

HS 2012 Structure

44.03		Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.
	(…)	
	4403.91	-- Of oak (*Quercus spp.*)
	4403.92	-- Of beech (*Fagus spp.*)
	4403.99	-- Other

HS 2017 Proposed Structure

44.03		Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared.
	(…)	
	4403.91	-- Of oak (*Quercus spp.*)
	4403.93	**-- Of beech (*Fagus spp.*), with a diameter of 15 cm or more [of which any cross-sectional dimension is 15 cm or more]**
	4403.94	**-- Of beech (*Fagus spp.*), other**
	4403.95	**-- Of birch (*Betula spp.*), with a diameter of 15 cm or more [of which any cross-sectional dimension is 15 cm or more]**
	4403.96	**-- Of birch (*Betula spp.*), other**
	4403.97	**-- Of poplar and aspen (*Populus spp.*)**
	4403.98	**-- Of eucalyptus (*Eucalyptus spp.*)**
	4403.99	-- Other

Supporting information

The proposal is to split subheading 4403.9 by species and size due to the high level of global international trade (US$ 4.9 billion in 2010). A breakdown similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union, also in national extended versions of HS in Russian Federation and other countries. WCO secretariat expressed preference to the use of term “cross-sectional dimension” instead of “diameter” (presented in brackets as an alternative) – FAO agrees with any of these options (to be decided by HS Review Sub-Committee).

Proposal: to create four new subheadings for coniferous and non-coniferous for railway or tramway sleepers (cross ties) of wood under 4406.10 and 4406.90.

HS 2012 Structure

44.06		Railway or tramway sleepers (cross-ties) of wood.
	4406.10	- Not impregnated
	4406.90	- Other

HS 2017 Proposed Structure

44.06		Railway or tramway sleepers (cross-ties) of wood.
		- Not impregnated :
	4406.11	**-- Coniferous**
	4406.12	**-- Non-coniferous**
		- Other :
	4406.91	**-- Coniferous**
	4406.92	**-- Non-coniferous**

Supporting information

The proposal is to split subheadings 4406.10 and 4406.90 by coniferous and non-coniferous is due to the high level of global international trade (US$ 120 million and US$ 211 million respectively, in 2010).

Proposal: to create three new subheadings for coniferous wood sawn or chipped lengthwise under 4407.10

HS 2012 Structure

44.07		Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm.
	4407.10	- Coniferous

HS 2017 Proposed Structure

44.07		Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm.
		- Coniferous :
	4407.11	**-- Of pine (*Pinus spp.*)**
	4407.12	**-- Of fir (*Abies spp.*) and spruce (*Picea spp.*)**
	4407.19	**-- Other**

Supporting information

The proposal is to split subheading 4407.10 by species due to the high level of global international trade (US$ 19.8 billion in 2010). A breakdown similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union, also in national extended versions of HS in China, Japan, Russian Federation and other countries.

Proposal: to create two new subheadings for non-coniferous wood sawn or chipped lengthwise under 4407.9. As a consequence, the new subheadings will generate a change in the scope of 4407.99 (that will exclude wood of birch, poplar and aspen species).

HS 2012 Structure

44.07		Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm.
	(…)	
	4407.95	-- Of ash (*Fraxinus spp.*)
	4407.99	-- Other

HS 2017 Proposed Structure

44.07		Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm.
	(…)	
	4407.95	-- Of ash (*Fraxinus spp.*)
	4407.96	**-- Of birch (*Betula spp.*)**
	4407.97	**-- Of poplar and aspen (*Populus spp.*)**
	4407.99	-- Other

Supporting information

The proposal is to add two new subheadings for poplar and birch species due to the high level of international trade (US$ 465 and 75 million respectively in Europe only, in 2010). A breakdown similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union, also in national extended versions of HS in Russian Federation and other countries.

Proposal: to create one new subheading for tropical wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, v jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end jointed. As a consequence, the new subheading will generate a change in the scope of 4409.29 (that will exclude tropical wood).

HS 2012 Structure

44.09 - Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, v-jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end-jointed.

44.09		Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, v jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end jointed.
	4409.10	- Coniferous
		- Non-coniferous
	4409.21	-- Of bamboo
	4409.29	-- Other

HS 2017 Proposed Structure

44.09		Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, v jointed, beaded, moulded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end jointed.
	4409.10	- Coniferous
		- Non-coniferous
	4409.21	-- Of bamboo
	4409.22	**-- Of tropical wood specified in Subheading Note 2 to this Chapter**
	4409.29	-- Other

Supporting information

The proposal to add new subheading for tropical species is due to the high level of international trade (US$ 1,324 million in 2010).

Proposal: to create two new subheadings for non-coniferous plywood under 4412.32 and revise text of 4412.39.

HS 2012 Structure

44.12		Plywood, veneered panels and similar laminated wood.
	(…)	
	4412.31	-- With at least one outer ply of tropical wood specified in Subheading Note 2 to this Chapter
	4412.32	-- Other, with at least one outer ply of non-coniferous wood
	4412.39	-- Other

HS 2017 Proposed Structure

44.12		Plywood, veneered panels and similar laminated wood.
	(…)	
	4412.31	-- With at least one outer ply of tropical wood specified in Subheading Note 2 to this Chapter
	4412.33	**-- Other, with at least one outer ply of non-coniferous wood of the species alder (*Alnus spp.*), ash (*Fraxinus spp.*), beech (*Fagus spp.*), birch (*Betula spp.*), cherry (*Prunus spp.*), chestnut (*Castanea spp.*), elm (*Ulmus spp.*), eucalyptus (*Eucalyptus spp.*), hickory (*Carya spp.*), horse chestnut (*Aesculus spp.*), lime (*Tilia spp.*), maple (*Acer spp.*), oak (*Quercus spp.*), plane tree (*Platanus spp.*), poplar and aspen (*Populus spp.*), robinia (*Robinia spp.*), tulipwood (*Liriodendron spp.*) or walnut (*Juglans spp.*)**
	4412.34	**-- Other, with at least one outer ply of non-coniferous wood not specified under Subheading 4412.33**
	4412.39	**-- Other, with both outer plies of coniferous wood**

Supporting information

The proposal is to expand the subheading 4412.32 (HS 2012) by two new subheadings due to the high level of global international trade (US$ 3.4 billion in 2010). A breakdown similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union.

Proposal: to create two new subheadings for prefabricated buildings under 9406.00.

HS 2012 Structure

94.06	9406.00	Prefabricated buildings.

HS 2017 Proposed Structure

94.06		Prefabricated buildings.
	9406.10	**- Predominantly made of wood**
	9406.90	**- Other**

Supporting information

The proposal is to expand the subheading 9406.00 (HS 2012) by two new subheadings due to the high level of global international trade of buildings made entirely or mainly of wood (US$ 1.3 billion in 2010). A breakdown similar to the one proposed for HS 2017 is in use in the Combined Nomenclature of the European Union, also in national extended versions of HS in New Zealand, USA and other countries.

Appendix 4. Statistical Data

JUSTIFICATION

Type I Threshold data

Commodities with world trade value (namely data for either import or export) exceeding US$ 50 million for subheadings and US$ 100 million for headings.

Type V High domestic trade (forestry only)

Forestry Products

[Notes:

The reported data on trade and production of forestry commodities included in the proposal and refer to the year 2010. They have been extracted from the forest products databases maintained by FAO, Eurostat, ITTO and UNECE that jointly collect annual statistics. These forest products databases contain statistics at the regional and/or global levels. In most cases, presented export and import are partial and they are marked with asterisk (*) and cover Europe, Northern America only, i.e global trade figures would be considerably higher. Exceptions are proposed subheadings 4401.1, 4403.1, 4406.1 and 4406.9, for which breakdown by coniferous and non-coniferous are estimates based on aggregate global figures from UN Comtrade database. Exchange rate applied 1 EUR = 1,32 US$ (as per IMF, 20/03/2012).]

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Production (mil m^3/ t)	Justifications
1	- Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms -- Coniferous	4401.10*	4401.11	52.8	46.5	219.9 (m^3)	Type I and V
2	-- Non-coniferous	4401.10*	4401.12	310.6	348.7	1648.0 (m^3)	Type I and V
3	- Sawdust and wood waste and scrap, agglomerated in logs, briquettes, pellets or similar forms : (…) -- Other	4401.39*	4401.32	94.0* Europe and USA	54.3* Europe	1.3* (t) in Europe	Type I and V
4	- Sawdust and wood waste and scrap, not agglomerated.	4401.39*	4401.40	585*	487*	131.4 (m^3)	Type I and V
5	- Treated with paint, stains, creosote or other preservatives -- Coniferous	4403.10*	4403.11		153.9		Type I
6	-- Non-coniferous	4403.10*	4403.12		185.3		Type I

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (mil us$)	Export (mil us$)	Production (mil m^3/ t)	Justifications
7	- Other, coniferous : -- Of pine (*Pinus spp.*) with a diameter not less than 15 cm	4403.20*	4403.21	246.6*	1100.0*		Type I
8	-- Of pine (*Pinus spp.*) other	4403.20*	4403.22	407.3*	239.7*		Type I
9	-- Of fir (*Abies spp*) and spruce (*Picea spp*) with a diameter not less than 15 cm	4403.20*	4403.23	999.5*	627.2*		Type I
10	-- Of fir (*Abies spp*) and spruce (*Picea spp*) other	4403.20*	4403.24	415.6*	489.9*		Type I
11	-- Other with a diameter not less than 15 cm	4403.20*	4403.25	133.9*	199.3*		Type I
12	-- Other	4403.20*	4403.26	122.0*	198.9*		Type I
13	-- Of beech (*Fagus spp.*) with a diameter not less than 15 cm	4403.92*	4403.93	61.1*	141.2*		Type I
14	-- Of beech (*Fagus spp.*) other	4403.92*	4403.94	196.8*	76.9*		Type I
15	-- Of birch (*Betula spp.*) with a diameter not less than 15 cm	4403.99*	4403.95	166.0**	35.3**		Type I
16	-- Of birch (*Betula spp.*) other	4403.99*	4403.96	465.0*	194.3*		Type I
17	-- Of poplar and aspen (*Populus spp.*)	4403.99*	4403.97	75.2*	60.1*		Type I
18	-- Of eucalyptus (*Eucalyptus spp.*)	4403.99*	4403.98	123.9*	158.5*		Type I
19	- Not impregnated : -- Coniferous	4406.10*	4406.11	51.3*	41.7*		Type I
20	-- Non-Coniferous	4406.10*	4406.12	58.3*	46.6*		Type I
21	- Other -- Coniferous	4406.90*	4406.91	93.6*	116.6*		Type I
22	-- Non-Coniferous	4406.90*	4406.92	75.7*	94.4*		Type I
23	- Coniferous : -- Of pine (*Pinus spp.*)	4407.10*	4407.11	1444.6*	3231.8*		Type I
24	-- Of fir (*Abies spp.*) and spruce (*Picea spp.*)	4407.10*	4407.12	4391.7*	6177.2*		Type I
25	-- Other	4407.10*	4407.19	2582.3*	1535.5*		Type I
26	-- Of poplar and aspen (*Populus spp.*)	4407.99*	4407.96	61.4*	28.4*		Type I
27	-- Of birch (*Betula spp.*)	4407.99*	4407.97	347.5*	239.6*		Type I

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (mil us$)	Export (mil us$)	Production (mil m^3/ t)	Justifications
28	Of tropical wood specified in Subheading Note 2 to this Chapter	4409.29*	4409.22		1,324		Type I
29	-- Other, with at least one outer ply of non-coniferous wood of the species alder (*Alnus spp.*), ash (*Fraxinus spp.*), beech (*Fagus spp.*), birch (*Betula spp.*), cherry (*Prunus spp.*), chestnut (*Castanea spp.*), elm (*Ulmus spp.*), eucalyptus (*Eucalyptus spp.*), hickory (Carya spp.), horse chestnut (*Aesculus spp.*), lime (*Tilia spp.*), maple (*Acer spp.*), oak (*Quercus spp.*), plane tree (*Platanus spp.*), poplar and aspen (*Populus spp.*), robinia (*Robinia spp.*), tulipwood (*Liriodendron spp.*) or walnut (*Juglans spp.*)	4412.32*	4412.33	1071.1*	794.6*		Type I
30	-- Other, with at least one outer ply of non-coniferous wood not specified under Subheading 4412.33	4412.32*	4412.34	370.6*	71.9*		Type I
31	-- Other, with both outer plies of coniferous wood	4412.39	4412.39	2001.4	3202.5		Type I
32	Prefabricated buildings. - Predominantly made of wood	9406.00*	9406.10	1219.6*	1346.2*		Type I
33	- Other	9406.00*	9406.90	1475.4*	2902.4*		Type I

AGRICULTURAL MACHINERY

The proposal has been prepared in partnership with VDMA (Verband Deutscher Maschinen- und Anlagenbau), AAPRESID (Asociación Argentina de Productores en Siembra Directa) and ABIMAQ (Associação Brasileira da Indústria de Máquinas e Equipamentos).

RATIONALE

The FAO collects data on trade and use of agricultural machinery through an Agricultural Machinery and Equipment Questionnaire sent to all countries on annual basis. The list used in the questionnaire is fully aligned with the Harmonized System.
The FAO has recently revised the list increasing detail and updating obsolete terminology. The new list has been disseminated starting from the month of August 2012 and include around 30 items (Appendix 6).

The current proposal reflects the analysis and consultation undertaken in the framework of the FAO list revision.

SPRAYERS

Proposal: to create a new heading for agricultural and horticultural sprayers (8424.4), separating operator carried sprayers from tractor mounted, trailer-mounted and self-propelled sprayers at subheading level. As a consequence, the new heading will generate a change in the scope and text of 8424.81 (now excluding sprayers).

HS 2012 Structure

84.24		Mechanical appliances (whether or not hand-operated) for projecting, dispersing or spraying liquids or powders; fire extinguishers, whether or not charged; spray guns and similar appliances; steam or sand blasting machines and similar jet projecting machines.
		- Other appliances :
	8424.81	-- Agricultural or horticultural

HS 2017 Proposed Structure

84.24		Mechanical appliances (whether or not hand-operated) for projecting, dispersing or spraying liquids or powders; fire extinguishers, whether or not charged; spray guns and similar appliances; steam or sand blasting machines and similar jet projecting machines.
		- Agricultural and horticultural sprayers
	8424.41	**-- Operator carried sprayers**
	8424.49	**-- Other (tractor mounted, trailer-mounted and self-propelled sprayers)**
	8424.81	-- **Other** agricultural or horticultural

Supporting information

8424.41 - Operator carried sprayers

Definition: Mechanical appliances (whether or not hand-operated) for projecting, dispersing or spraying liquids, pulled or carried by the operator either by a handle, one or two shoulder straps for agricultural or horticultural purposes with a nominal spray liquid capacity of 5 l or more either on the equipment or in an additional tank connected to the equipment, such as manual compression and lever operated knapsack sprayers, motorized knapsack sprayers, motorized knapsack mistblowers, operator carried rotary nozzle applicators and manually pulled or pushed boom sprayers. Excluded are hot and cold foggers.

This equipment is carried and operated conveniently on the back, on the shoulder or by hand, and is designed for the small farms. In many developing countries, however, the manual knapsack sprayer is the most commonly used application equipment, not only on small holder farms, but also on large commercial plantations.

Fig.1: Manual lever operated knapsack sprayer

Fig.2: Motorized knapsack sprayer (hydraulic)

Fig3: Operator carried compression sprayers

Fig.4: Motorized knapsack mistblower

8424.49 – Other (tractor mounted, trailer-mounted, self-propelled sprayers)

This subheading excludes aircraft sprayers.

Definition: Mechanical appliances carried or pulled by a tractor or a suitable prime mover to which they are attached, driven by ground wheel, engine or from the engine of the prime mover, for projecting, dispersing or spraying liquids in agriculture or horticulture, such as tractor or ATV mounted or trailed boom sprayers, animal drawn boom sprayers, airblast sprayers with hydraulic, pneumatic or centrifugal droplet formation, including animal drawn boom sprayers, with a minimum tank volume of 80 l and special spray equipment for locust control. Excluded are hot and cold foggers.

Tractor Mounted Sprayer. Sprayers can be mounted on a frame that attaches to a tractor by a three-point hitch system, or they can be attached or mounted to a four-wheeler. The sprayer can be run by an electric pump that is powered by the four-wheeler's battery or by a separate battery, by an own combustion engine or by the power take off or hydraulic of the tractor/prime mover.

Trailer-Mounted Sprayer. Sprayers can also be supported by wheels and towed by a tractor, four-wheeler, or garden tractor and eventually by draft animals. This sprayer allows higher tank volumes than sprayers mounted on the tractor. The boom is mounted on the rear of the trailer frame. The pump can be powered by the tractor power takeoff (PTO), tractor hydraulic, or by a gasoline engine mounted on the trailer, or even by ground wheel.

Self-Propelled Sprayer is permanently fixed to the prime mover as a special purpose self propelled spray machine, either with a spray boom or as airblast orchard sprayer.

Self-Propelled, High-Clearance Sprayer. This sprayer is commonly used in tall crops such as sweet corn, sugar cane, or cotton production where it is important that the machine clears a relatively high-growing crop.

Types of sprayers: boom sprayers and airblast sprayers.

(a) Boom Sprayers, commonly used for applications directed vertically down to a crop or soil surface target exposing a horizontal target area; the boom can extend outward and over the crop (Fig.5). They can also be used in maintaining the floor of orchards where herbicides can eliminate or control the growth of ground cover on the orchard floor. Boom sprayers can be tractor-mounted, trailed or self-propelled.

Fig.5: Self propelled boom sprayer (www.collectormodels.com.au)

Fig.6: Self propelled boom sprayer (www.collectormodels.com.au)

Fig.7: Tractor trailed boom sprayer

(b) Airblast Sprayers use a high-velocity and/or large-volume airstream to assist with the droplet formation and to direct the spray cloud to the target area. Airblast sprayers are usually used for complex three dimensional target areas with a projection of the spray sidewards (horizontal) or upwards (Figure 6). Airblast sprayers come in different sizes according to the target size. Airblast sprayers can be one-way (one-sided) or two-way (two-sided), airshear airblast sprayers with high airspeed can even be used for multirows reaching with the airtubes over the rows and spraying from both sides


Fig.8: Airblast sprayer (Source: www.vtpp.ext.vt.edu)

The goal of the airflow is to assist with the droplet formation (in some cases droplets are only formed by airshear) and to carry the relatively small droplets to the target area, creating a turbulent air flow which would allow to penetrate the canopy and cover also the inverse sides of the leaves. Speed must be high enough to carry the relatively small droplets to the target area without evaporating before hitting the target, but not so fast that leaves would turn perpendicular to the airflow and shut the interior part of the canopy off. Velocity is important for getting the spray to the top of tall trees. Most airstreams lose 75 percent of their velocity in the first 25 feet from the sprayer. The use of airblast sprayers for spraying low field crops or

horizontal targets is not recommended due to the poor distribution pattern. Airblast sprayers require more power than boom sprayers do. Pesticide drift can be a serious problem since airblast sprayers usually operate at a small droplet spectrum. Correct setting is therefore important and electronic controls exist to adapt the spray volume and airspeed automatically to the actual canopy density, to recollect spray drift on the other side of the sprayed row with recycling sprayers or to increase adherence to the target canopy with electrostatic charge of the spray.

Some examples of trade nomenclatures where a similar breakdown is applied are reported below:

THE HARMONIZED TARIFF SCHEDULE OF THE UNITED STATES

8424.81	Agricultural or horticultural:
8424.81.10.00	Sprayers (except sprayers, self-contained, having a capacity not over 20 liters).

(Source: http://www.usitc.gov/publications/docs/tata/hts/bychapter/120Pc84.pdf)

HARMONIZED SYSTEM - CANADA

8424.81.00	Agricultural or horticultural:
8424.81.00.10	Sprayers (except sprayers, self-contained, having a capacity not over 20 liters)

(Source: http://www.cbsa-asfc.gc.ca/trade-commerce/tariff-tarif/2012/01-99/ch84-2012-eng.pdf)

THE COMBINED NOMENCLATURE OF THE EUROPEAN UNION

	Other
8424 81 91	Sprayers and powder distributors designed to be mounted on or drawn by tractors

(Source: http://ec.europa.eu/)

INTERNATIONAL CUSTOMS JOURNAL - ARGENTINA

8424.81	Agricultural or horticultural:
8424.81.1	Sprayers and powder distributors, for fungicides, insecticides and other pesticides
8424.81.11	Hand operated appliances and bellows
8424.81.19	Other

(Source: http://www.bitd.org/Search.aspx)

INTERNATIONAL CUSTOMS JOURNAL - INDONESIA

8424 81	Agricultural or horticultural:
8424 81 21 00	Spraying machines for pesticides

(Source: http://www.bitd.org/Search.aspx)

SEEDERS AND PLANTERS

Proposal: to add detail at subheading level on no-till direct seeders, planters and transplanters and other seeders, planters and transplanters.

HS 2012 Structure

8432.30 - Seeders, planters and transplanters

HS 2017 Proposed Structure

- Seeders, planters and transplanters

8432.31 -- No-till direct seeders, planters and transplanters

8432.39 -- Other

Supporting information

8432.31 - No-till direct seeders, planters and transplanters

*Definitio*n: Mechanical appliances which are used to deliver seed in a measured quantity and deposit the seed into the *unprepared* soil by penetrating through surface mulch and plant residues, opening a narrow slot or punching a hole into the soil, releasing the seed into the same at a predetermined position and depth and bring the seed into contact with the soil. The slot is usually closed and covered and slightly compressed for better seed-soil contact. The seed with seeders is usually released in a continuous stream (drill seed), for example for small gain cereal crops. Planters position single seeds or a determined number of seeds into clearly defined planting positions with a regular spacing from planting position to planting position (precision planting), for example for row crops. No til seeders exist for animal traction, single axle and four wheel tractors, tractor mounted and trailed; no-till planters exist for with manual operation, animal traction, single axle tractor operated, tractor mounted or tractor trailed.

No-till direct seeders and planters are machines for planting (seeding) crops into un-tilled soil by opening a narrow slot or trench only of sufficient width and depth to obtain proper seed coverage. Specific components of no-till seeders and planters are the soil engaging components, which need to provide a facility to cut through or penetrate surface mulch covers and crop residues without pushing them into seed furrows and then open a fertilizer and a seed furrow ideally with as little soil disturbance as possible. Common tools for residue cutting are steel disk coulters or narrow flail choppers. Furrow openers can be chisels, single or double steel disks of varying design, combinations of disks and chisels or wings or star wheel punch planters. No other soil tillage is done. Metering in seeders can be mechanically with gravity feeding or pneumatically (airseeders) where the seed is blown with air into the seedtubes. Metering in planters can be mechanically with horizontal plates with holes, inclined plates, cups or similar mechanisms for delivering single seeds to the planting

position, or pneumatically with vacuum and vertical plates with holes. No-till seeders and planters are usually equipped with fertilizer application facilities applying fertilizer along with the seed into the soil, mostly into different furrows at greater depth or sidewards of the seed furrow. The metering mechanisms are usually driven by ground wheels, high power consuming components such as fans for pneumatic seeders or planters or rotary flail choppers for residue handling are usually driven from the tractor power take off or hydraulic or eventually with separate combustion engines.

This equipment is particularly relevant to conservation agriculture practices.
Land under conservation agriculture is estimated being around 125 million ha worldwide (FAO AQUASTAT, 2012). International world trade of no-till direct seeders and planters is estimated to exceed US$ 50 million[15].

Fig.9: No-till direct seeders and planters for small scale farmers (Source: FAO[16])

[15]Global trade value is estimated to be above US$ 200 million a year. According to FAO estimates, conservation agriculture increases by 7 million hectares per year. The average price per unit of an average-low end no-till seeder is approximately US$ 10,000, covering about 200 ha per year, or US$ 30,000 minimum for the higher end machines covering up to 1,000 ha land.
[16] "Conservation and agriculture in Developing Countries: The Role of Mechanization", presentation at the Club of Bologna by T. Friedrich, J. Kienzle, A. Kassam, FAO, 2009

Fig.10: No-till direct seeders and planters (Source: http://biosystems.okstate.edu)

Fig. 11: No-till direct seeders and planters (Source: http://biosystems.okstate.edu)

8432.39 - Other seeders, planters and transplanters

*Definitio*n: Mechanical appliances which are used to deliver seed in a measured quantity and deposit the seed into a *prepared* seedbed of soil with a fine aggregate size corresponding to the seed size and free of crop residues by inserting furrow openers into the loose soil and, releasing the seed into the same either as a narrow or wide band or as single grains, at a predetermined position and depth and bring the seed into contact with the soil. The seed with seeders is usually released in a continuous stream (drill seed), for example for small gain cereal crops. Planters position single seeds or a determined number of seeds into clearly defined planting positions with a regular spacing from planting position to planting position (precision planting), for example for row crops. Seeders exist for animal traction, single axle and four wheel tractors, tractor mounted and trailed; planters exist for with manual operation, animal traction, single axle tractor operated, tractor mounted or tractor trailed.

This equipment is used to distribute and insert seed into the machine prepared seedbed. The seedbed ideally is loose, slightly recompacted, of fine and even granulometry and without any residues on the surface. Conventional seeders and planters shape the soil surface to the requirements, insert the seed into the loose soil with dragged, chisel, duckfoot hoe, disks or event with seedbars, which are hollow tubes with holes through which the seed is blown into the soil. The seed is afterwards covered with the loose soil and recompacted. Metering in seeders can be mechanically with gravity feeding or pneumatically (airseeders) where the seed is blown with air into the seedtubes. Metering in planters can be mechanically with horizontal plates with holes, inclined plates, cups or similar mechanisms for delivering single seeds to the planting position, or pneumatically with vacuum and vertical plates with holes. No-till seeders and planters are usually equipped with fertilizer application facilities applying fertilizer along with the seed into the soil, mostly into different furrows at greater depth or sidewards of the seed furrow. The metering mechanisms are usually driven by ground wheels, high power consuming components such as fans for pneumatic seeders or planters or rotary flail choppers for residue handling are usully driven from the tractor power take off or hydraulic or eventually with separate combustion engines.

MANURE SPREADERS AND FERTILIZER DISTRIBUTORS

Proposal: to add detail at subheading level on manure spreaders and fertilizer distributors.

HS 2012 Structure

8432.40 - Manure spreaders and fertilizer distributors

HS 2017 Proposed Structure

- Manure spreaders and fertilizer distributors

8432.41 -- Manure spreaders

8432.49 -- Other (fertilizer distributors)

Supporting information

8432.41 - Manure spreaders are agricultural machines used to distribute manure (dung) over a field as a natural soil amendment and a recycling of plant nutrients from "animal waste". A typical modern manure spreader consists of a trailer towed behind a tractor with a mechanism driven by the tractor's power take off (PTO), or alternatively a self propelled vehicle (truck). The mechanism on the platform is moving the solid manure to the end of the platform where it is picked up and spread, usually with some rotating drums. In case of liquid manure or slurry the carrier is a tank, attached to which are tools for either spreading or incorporating the slurry into the field. Manure spreaders usually have carrying capacities of several tons due to the high volume of the manure.

Fig.10: Manure spreader (Source: www.collectormodels.com.au)

Fig.12: Manure spreader (Source: wikipedia.com)

Fig.13: Manure spreader (Source: agri42.com)

8432.49 - Fertilizer distributors[17] are agricultural machines or mechanical devices used for evenly spreading synthetic fertilizer or other synthetic solid inputs over the soil to enhance plant growth. These inputs are usually in granular or powder form, homogeneous and have a relatively high concentration of active ingredients (for example plant nutrients). With this the fertilizer distributers have usually carrying capacities starting from a few hundred kilograms to several tons. They can be tractor mounted, trailed or self propelled. Depending on mode of application fertilizer distributors can be:

***Rotating disc applicators*.** In most machine-applied fertilizer applications, distribution is via the centrifugal force of a rotating disc. This method gives an uneven application, though

17 P. Hartley, FAO (1999), Fertilizer distribution machinery: design and operation, www.fao.org/sd/erp/toolkit/BOOKS/fertilizerdistributionmachinery.doc

machines which use twin discs give a better spread. Rotating-disc fertilizer applicators are useful for spreading dry powders in bulk (for example, lime), and whenever uniformity of spread is not critical. Rotating disc fertilizer applicators may be self-propelled, purpose built, or tractor mounted units.

Pendulum or oscillating spout. Fertilizer passes through the pendulum or oscillating spout and is sprinkled over the ground. Pendulum machines give a more uniform application than disc machines, but the correct over-lap is necessary for even distribution because the pendulum machine distributes fertilizer in a pyramid pattern as the spout oscillates from side to side.

Drop-type fertilizer distributor. The drop-type fertilizer distributor provides the most uniform delivery. The drop-type has a full width hopper (up to 34 m wide), with adjustable openings in the bottom. A paddle rotor agitates the fertilizer above the openings. Fertilizer must be dry and free from lumps. The width of the drop-type distributor is a disadvantage. Wide distributors cannot be towed along public roads, while narrow versions require much tracking back and forth across the field.

Pneumatic distributor. Large-scale farmers whose fields are set up with "tramlines", prefer the new pneumatic distributor. The fertilizer is "blown" along pipes mounted on a boom and distributed through outlets similar to a boom sprayer. This machine has the advantages of uniformity of spread, reduction of fertilizer wastage and wide spread (30 m).

Placement machines. Row or band placement machines use a combination of components such as: special fertilizer drills for deep and shallow placement and attachments for planters and tillage implements. In some cases, the base machine is designed primarily for fertilizer and secondly for land preparation or planting.

Fig.14: Fertilizer distributor (Source: www.collectormodels.com.au)

Fig.15: Fertilizer distributor (Source: www.collectormodels.com.au)

Fig.16: Fertilizer distributor (Source: www.collectormodels.com.au)

Some examples of trade nomenclatures where a similar breakdown is applied are reported below:

TARIFS DOUANIER - ALGERIE

84324010105	Distributeurs d'engrais minéraux ou chimiques d'une capacité n'excédant pas 600 l
84324010901	Distributeurs d'engrais minéraux ou chimiques d'une capacité excédant 600 l
84324090107	Distributeurs d'engrais autres que minéraux ou chimiques, d'une capacité n'excédant pas 600 l
84324090914	Distributeurs d'engrais autres que minéraux ou chimiques, d'une capacité excédant 600 l
84324090992	Epandeurs de fumier

(Source : http://www.douane.gov.dz/applications/tarif/)

TRACTORS

Proposal: to update terminology used for 8701.10, 8701.30 and 8701.90 and to increase detail on 8701.90.

The proposal does not intend to change the scope of the current subheadings but only to replace the current terminology "Pedestrian controlled tractors" with "Single axle tractors", "Track-laying tractors" with "Crawlers" and "Other" with "Double axles tractors" and to increase detail on engine power rate for double axles tractors. The new terminology is recommended as more commonly used and precise.

HS 2012 Structure

8701.10 - Pedestrian controlled tractors

8701.30 - Track-laying tractors

8701.90 - Other

HS 2017 Proposed Structure

8701.10 **- Single axle tractors**

8701.30 **- Crawlers**

- Double axles tractors

8701.91 -- Not exceeding 18 kW

8701.92 -- Of 18 kW or more but less than 37 kW

8701.93 -- Of 37 kW or more but less than 75 kW

8701.94 -- Of 75 kW or more but less than 130 kW

8701.99 -- Of 130 kW or more

Supporting information

8701.10 - Single axle tractors (one and two wheel tractors) are self-powered and self-propelled, which can pull and power various farm implements such as a tiller, trailer, cultivator or harrow, a plough, or various seeders and harvesters. The operator usually walks behind it or rides the implement being towed. In common language this tractor type is also often called 'power tiller', which gives the wrong impression that it could only be used for rotary tiller applications. A further distinction is seen in the two-wheeled tractor's ability to operate disparate types of agricultural equipment, while rotary tillers are smaller and specialize in soil tillage and often do not even have wheels.

Fig.17: Two wheel tractors (single axle) (Source: hellopro.co.uk)

Fig.18: Two wheel tractor (single axle) (Source: www.wikipedia.com)

8701.30 - Crawlers[18] are vehicles that run on continuous tracks instead of wheels. The principal design advantages of tracked over wheeled vehicles are that they are in contact with a larger surface area than would generally be the case with a wheeled vehicle, and as a result exert a much lower force per unit area on the ground being traversed than a conventional wheeled vehicle of the same weight. This makes them suitable for use on soft, low friction and uneven ground such as mud, ice and snow. The principal disadvantage is that tracks are a more complex mechanism than a wheel, and relatively prone to failure modes such as snapped or derailed tracks.

Fig.19: Crawler (Source: ww.collectormodels.com.au)

8701.90 - Double axles tractors (three and four wheel tractors) are vehicles specifically designed to deliver a high tractive effort (or torque) at slow speeds, for the purposes of hauling a trailer or machinery used in agriculture or construction. Most commonly, the term is used to describe a farm vehicle that provides the power and traction to mechanize agricultural tasks, especially (and originally) tillage but nowadays a great variety of tasks. Agricultural implements may be towed behind or mounted on the tractor, and the tractor may also provide a source of power if the implement is mechanised.

[18] Wikipedia.

The engine power rate proposed are very similar to those utilized by the European Union. The unit of measure recommended is **kW**. In agricultural machinery the general characterization of engines for tractors or self propelled machinery is the power rating and not the displacement. Displacement values for tractors would be much more difficult to obtain and would not have the informative value as power ratings. Low specification engines, as they are still common in agricultural machines, could have relatively high displacement with low power ratings and would end up in the wrong categories, if the ranking would be by displacement and not by power. We therefore recommend to use "kW" instead of "cc" or "cm3".

Fig.20: Three wheel tractors (double axles) (Source: www.fwi.co.uk)

Fig.21: Four wheel tractor (double axles) (Source: www.collectormodels.com.au)

Fig.21: Four wheel tractor (double axles)

Some examples of trade nomenclatures where a similar breakdown is applied are reported below:

THE COMBINED NOMENCLATURE OF THE EUROPEAN UNION

Agricultural tractors (excluding pedestrian-controlled tractors) and forestry tractors, wheeled:

	New, of an engine power:
8701 90 11	Not exceeding 18 kW
8701 90 20	Exceeding 18 kW but not exceeding 37 kW
8701 90 25	Exceeding 37 kW but not exceeding 59 kW
8701 90 31	Exceeding 59 kW but not exceeding 75 kW
8701 90 35	Exceeding 75 kW but not exceeding 90 kW
8701 90 39	Exceeding 90 kW

(Source: http://ec.europa.eu/)

TARIFS ET NOMENCLATURE - ALGERIE

87019011002	Tracteurs agricoles et tracteurs forestiers(a l'exclusion des motoculteurs),a roues, d'une puissance de moteur, n'excédant pas 18 kW, neufs
87019020003	Tracteurs agricoles et tracteurs forestiers (a l'exclusion des motoculteurs),a roues, d'une puissance de moteur excédant 18 kW mais n'excédante pas 37 kW, neufs
87019025008	Tracteurs agricoles et tracteurs forestiers(a l'exclusion des motoculteurs),a roues, d'une puissance de moteur, excédant 37 kW mais n'excédant pas 59 kW, neufs
87019031000	Tracteurs agricoles et tracteurs forestiers(a l'exclusion des motoculteurs),a roues, d'une puissance de moteur, excédant 59 kW mais n'excédante pas 75 kW, neufs
87019035002	Tracteurs agricoles et tracteurs forestiers(a l'exclusion des motoculteurs),a roues, d'une puissance de moteur, excédant 75 kW mais n'excédant pas 90 kW, neufs
87019039004	Tracteurs agricoles et tracteurs forestiers(a l'exclusion des motoculteurs),a roues, d'une puissance de moteur, excédant 90 kW, neufs

(Source : http://www.douane.gov.dz/applications/tarif/)

THE HARMONIZED TARIFF SCHEDULE OF THE UNITED STATES

8701	Tractors
8701.90.10	Suitable for agricultural use
	Power take-off (PTO) type:
8701.90.10.05	With a PTO of less than 14.9 kW
8701.90.10.10	With a PTO of 14.9 kW or more but less than 22.4 kW
8701.90.10.15	With a PTO of 22.4 kW or more but less than 29.8 kW
8701.90.10.30	With a PTO of 29.8 kW or more but less than 44.8 kW
8701.90.10.35	With a PTO of 44.8 kW or more but less than 59.7 kW
8701.90.10.40	With a PTO of 59.7 kW or more but less than 74.6 kW
8701.90.10.45	With a PTO of 74.6 kW or more but less than 89.5 kW
8701.90.10.50	With a PTO of 89.5 kW or more but less than 104.4 kW
8701.90.10.55	With a PTO of 104.4 kW or more but less than 119.4 kW.
8701.90.10.60	With a PTO of 119.4 kW or more but less than 134.3 kW
8701.90.10.65	With a PTO of 134.3 kW or more

(Source: http://www.usitc.gov/publications/docs/tata/hts/bychapter/120Pc87.pdf)

Powered by an internal combustion engine, of a kind for agricultural use, new, with a power take-off (PTO) of less than 74.6 kW

8701.90.90.21	With a PTO of less than 14.9 kW
8701.90.90.22	With a PTO of 14.9 kW or more but less than 22.4 kW
8701.90.90.23	With a PTO of 22.4 kW or more but less than 29.8 kW
8701.90.90.24	With a PTO of 29.8 kW or more but less than 44.8 kW
8701.90.90.25	With a PTO of 44.8 kW or more but less than 59.7 kW
8701.90.90.26	With a PTO of 59.7 kW or more but less than 74.6 kW

Powered by an internal combustion engine, of a kind for agricultural use, new, with a power take-off (PTO) of 74.6 kW or more

8701.90.90.31	With a PTO of 74.6 kW or more but less than 89.5 kW
8701.90.90.32	With a PTO of 89.5 kW or more but less than 104.4 kW
8701.90.90.33	With a PTO of 104.4 kW or more but less than 119.4 kW
8701.90.90.34	With a PTO of 119.4 kW or more but less than 134.3 kW
8701.90.90.35	With a PTO of 134.3 kW or more

(Source: http://www.cbsa-asfc.gc.ca/trade-commerce/tariff-tarif/2012/01-99/ch87-2012-eng.pdf)

Appendix 5. Statistical Data

JUSTIFICATION

Type I Threshold data
Commodities with world trade value (namely data for either import or export) exceeding US$ 50 million for subheadings and US$ 100 million for headings.

Fertilizers and Agricultural Machinery
[Notes:
1.(Except no-till direct seeders, planters and transplanters), export data are an average for the year 2008, 2009 and 2010. The ** indicates that data refer to German exports only. Global export is calculated as the total volume of 48 countries. Data are estimates based on VDMA data expressed Euro; exchange rate applied 1 EUR = 1,32 US$ (as per IMF, 20/03/2012).
2.Data on no-till direct seeders refer to Argentinean exports on average between 2008-2010 **(***);** data are provided by the *Estación Experimental Agropecuaria Manfredi* of the *Instituto Nacional de Tacnologia Agropecuaria* (http://inta.gob.ar/documentos/siembra-directa/at_multi_download/file/Siembra%20Directa%202011.pdf)]

No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Price (US$/t)	Justification
1	Operator carried sprayers	8424.81*	8424.41		37.4**		Type I
2	Tractor mounted, trailer-mounted and self-propelled sprayers	8424.81*	8424.49		55.7**		Type I
3	No-till direct seeders, planters and transplanters	8432.30*	8432.31		216***		Type I and VI
4	Other seeders, planters and transplanters	8432.30*	8432.39				Type I and VI
5	Manure spreaders	8432.40*	8432.41		7.9**		Type I
6	Fertilizer distributors	8432.40*	8432.49		275.2 (global) 38.8**		Type I
No	Description	HS 2012 (Current)	HS 2017 (Prop)	Import (millions US$)	Export (millions US$)	Price (US$/t)	Justification

	Double axles tractors :						
7	-- Not exceeding 18 kW	8701.90*	8701.91		14743 (global) 7.26**		Type I
8	-- Of 18 kW or more but less than 37 kW	8701.90*	8701.92		20.9**		Type I
9	-- Of 37 kW or more but less than 75 kW	8701.90*	8701.93		396.4**		Type I
10	-- Of 75 kW or more but less than 130 kW	8701.90*	8701.94		650**		Type I
11	-- Of 130 kW or more	8701.90*	8701.99		1956.1**		Type I

Appendix 6. New FAO Item's List (Updated in August 2012)

ITEM	HS CODES
AGRICULTURAL TRACTORS	
Agricultural tractors, total	**8701.10,30,90**
-Pedestrian controlled tractors (single axle tractors)	8701.10
-Track-laying tractors (Crawlers)	8701.30
- Other agricultural tractors (two-axles tractors)	8701.90
-- ≤37 kW	8701.90
-- >37 ≤ 130 kW	8701.90
-- >130 kW	8701.90
HARVESTING AND THRESHING EQUIPMENT	
-Grass harvesting machines (tedders, rakes, mowers)	8433.11,.19,.20
-Balers (Straw and fodder balers including pick-up balers)	8433.40
Harvesting and threshing machine	**8433.5 (51,.52, .53,.59)**
-Combine harvesters - threshers	8433.51
-Threshing machines	8433.52
-Root or tuber harvesting machines	8433.53
-Other harvesting machines	8433.59
MILKING MACHINES	
-Milking machines	8434.10
SOIL WORKING EQUIPMENT	
Soil working equipment	**8432.10,.21,.29,.80**
-Ploughs (e.g. reversible ploughs and non-reversible ploughs)	8432.10

ITEM	HS CODES
-Disc harrows	8432.21
-Other harrows, scarifiers,cultivators,weeders and hoes	8432.29
-Other soil preparation or cultivation machines	8432.80
-Seeders, planters and transplanters	8432.30
-- No-till direct seeders, planters and transplanters	8432.30
-- Other seeders, planters and transplanters	8432.30
FERTILIZING EQUIPMENT	
-Manure spreaders and fertiliser distributors	8432.40
-- Manure spreaders	8432.40
-- Fertiliser distributors	8432.40
PLANT PROTECTION AND IRRIGATION EQUIPMENT	
-Sprayers	8424.81
-- Operator carried sprayers for agriculture and horticulture	8424.81
-- Tractor sprayers	8424.81
-Irrigation system	8424.81