

Supply Chain Analysis of Red Snapper in Indonesia



Executive Summary

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Indonesia has been the leading country in terms of snapper catch, contributing almost 40% to total snapper global capture production or totaled 99 thousands tonnes in 2006. In general, landings of snapper in Indonesia show tendency to keep increasing with considerably fast path. Total catch increased from 500 tonnes in 1950 to 99,390 tonnes in 2006, where the fastest path occurred since 2002 until recently. Almost 78% of total Indonesian snappers were caught in Western Central Pacific Ocean waters of Indonesia and the remaining 22% were from Eastern Indian Ocean waters of Indonesia (FISHSTAT Plus – FAO).

Snappers caught in Indonesia are identified *kakap merah* or *bambangan* ('red snapper') in the Indonesia Capture Fisheries Statistics (MMAF 2006a), regardless of the actual species. In reality a number of snappers are found in Indonesia including Malabar blood snapper (*Lutjanus malabaricus*) which is found throughout Southeast Asia and Western Central Pacific but is often misidentified with humphead or blood snapper (*Lutjanus sanguineus*). Other species that also commonly caught in Indonesian snapper fishery is *Lutjanus erythropterus* (crimson or scarlet snapper), which also has been referred to *L. malabaricus* or *L. altifrontalis* by many recent authors.

Data from Indonesia Capture Fisheries Statistics (MMAF 2006a) shows that in 2004 'red snapper' catch in Arafura Sea, Aru Sea and Eastern Timor Sea contributed to 30% of total catch of 'red snapper' in Indonesia with 27,012 t landing. Java Sea is still one of important 'red snapper' fishing grounds in Indonesia, contributed to 17% of total 'red snapper' landing in 2004, followed by Makassar Strait and Flores Sea (16%), Indian Ocean (9%), South China Sea (8%), Mollucas Sea, Tomini Bay and Seram Sea (7%), Banda Sea (6%) and Sulawesi Sea and the Pacific Ocean (3%).

Landing of snapper in Eastern Indian Ocean waters of Indonesia has experienced downward trends since 2000 until recently. Before that year, snapper catch boosted from just 8.5 thousands t in 1990 to 27 thousands t in 1999 when it reached its peak. On the other hand, landings of snapper in Western Central Pacific waters of Indonesia show sharp increases since 2002 until recently. Snapper catch jumped from 45 thousands t in 2002 to 87 thousands t in 2006 or almost 100% increase in just 5 years period. The

increase in the number of fishing vessels licensed by district and provincial governments to operate in eastern Indonesia, especially in Arafura Sea by around 105% between 2001 and 2003 might explain the huge increase of snapper landings in that area in that period onward.

Normally, the fishermen bring and trade their 'red snapper' catches to TPI (*Tempat Pelelangan Ikan* of Fish Auction Halls) in landing areas. There are two types of buyers in TPI: first one is the trader that buys snappers from fishermen and directly sell them to local markets or consumers; and second one is the trader that buys snappers to supply the processing plants and exporters. In the processing plants, snappers are processed into fillet and/or whole round products for export. Processed snappers with high quality (Quality A) will be then exported to U.S., Europe and Asian countries. Meanwhile, processed snappers that do not meet the standard and quality requested by the buyers/importers (Quality B) will be marketed locally. In addition to that, the company will also sell residuals (e.g. head, stomach, etc) of snappers to local buyers. Snappers with minimum weight of 450 gram per individual are regularly exported by agents – who directly pick up them from fishermen - to Singapore and Malaysia.

Snappers from Indonesia are often marketed as 'red snapper' or 'scarlet snapper' and 'Malabar snapper' (*Lutjanus sp.*). In the United States there is much confusion over the marketing of snapper. The U.S. Food and Drug Administration (FDA) allows any number of species to be marketed as "snapper" but only *Lutjanus campechanus* can be legally sold as 'red snapper'.

It is not easy to obtain data on total export of snapper from Indonesia and how much of it goes to which countries. There is lack of information on the production and market distribution of Indonesian snapper. Until late 90s and even in early 2000, snapper is not considered as the main focus of export management by Indonesia government. In the government publication of fishery products export statistics; snapper is not listed as individually separated items as other commercially important species, such as tuna, skipjack, trout, sardines, etc. Instead, snapper is included under 'others' in each category of Indonesian fishery products export. Indonesian snapper is mostly exported in the forms of fresh/chilled whole round, frozen whole round and frozen fillet. United States, European Union countries, Japan, Singapore, Hong Kong, China, South Korea, Australia and Middle East have been identified as main market for Indonesian snapper export.

In the U.S. market, snapper contributed to more than 4% of total U.S. saltwater fish import (fresh and frozen) with total 18,834 t in 2006, were valued at USD 84 million or contributing to almost 5% of total U.S. saltwater fish import (fresh and frozen) value. Fresh snapper contribute to almost 70% of total U.S. snapper import.

The biggest fresh snapper supplier to U.S. market is Mexico, contributing almost 22% of total U.S. import of fresh snapper in 2007, followed by Nicaragua (16%), Panama (16%), Suriname (11%) and Brazil (10%). Meanwhile, Indonesia just contributed to 1% of total U.S. fresh snapper import in 2007. Brazil and Indonesia are the leading frozen snapper

exporters to U.S. with a 48% and 21% import share respectively into U.S. The other main exporters were Guyana (10%), Nicaragua (7%), Suriname (4%) and Panama (2%).

During the period 2000 to 2004, total U.S. fresh and frozen snapper import from Indonesia declined, from 1,556 t in 2000 to 1,169 t in 2004. However in 2005, following the significant increase in total U.S. frozen snapper import, U.S. snapper import from Indonesia also jumped drastically to 2,015 t or rise by more than 70% in just one year period. In 2006, the U.S. snapper import from Indonesia started to decline again to 1,610 t in 2006 and hit the ground at level of 1,326 t in 2007 or decrease by almost 35% in two years period (<http://www.st.nmfs.noaa.gov>).

Total value of U.S. fishery products import from Indonesia reached USD 886.7 million in 2007, increasing significantly from 2006, which was USD 785.2 million. Snapper just contributes to 0.7% of total U.S. import value from Indonesia or totaled USD 5.8 million in 2007, USD 262 thousands less than in 2006. Almost 90% of U.S. snapper import from Indonesia is in the form of frozen snapper. The average declared unit value of fresh snapper has experienced some up-and-downs through the past years, hitting the ground at USD 3.7 per kilo in 2005 before climbing again to USD 4.4 per kilo in 2007. Meanwhile, unit value of frozen snapper increased steadily from USD 3.7 per kilo in 2001 to USD 4.4 per kilo in 2007. There is indication that the unit value of Indonesian fresh and frozen snapper will keep increasing until end of 2008.

In short, the value chain of snapper from Indonesia is as follows: fishermen sell snappers to trader for Rp 20,000 per kilo or about USD 1 per lb. Then the traders sell snappers to the processors or exporters (note: need to check the price). The processors/exporters sell processed snapper to the buyers/importers for USD 3.7 to USD 5.6 per lb range, depending on the types and size of products (frozen fillet natural size 6 – 8 oz and 8 – 10 oz are the most expensive ones among the frozen fillet natural products). Retailer price reaches USD 6.99 per lb (<http://www.urnerbarry.com>). Finally, the snapper fillet price at restaurant on the menu is about USD 27 - USD 30 (fillet cost = USD 12 – USD 15) [H.M. Johnson & Associates 2007].

In 2007, there are at least forty U.S. importers that involved in importing snapper to U.S. from Indonesia from about 25 Indonesian snapper exporters in Indonesia. Following the decline in total U.S. frozen snapper import in 2006, snapper imports of main importers also decreased. Snapper importers usually also play a role as wholesalers at U.S. market.

While the export demand from Europe, China, Korea, and the U.S. are on the rise, many processors and exporters complain that they could not meet all of the requests due to limited raw material. Lack of snapper supply is also reflected in the significant drop of snapper export to U.S. from top Indonesian snapper exporters since 2006 until recently. Indonesian snapper export to U.S. decreased by almost 35% in two years period (2006 to 2007).

According to one of the biggest Indonesian snapper exporters, there has been lack of supply from fishermen that has resulted in the drop of the company's production capacity

by 40 percent. The company complained that it is getting more difficult to get fish. Since the supply is smaller than demand, fishermen have high bargaining power. The company admit that their utility is now only between 40 % - 50 %. Lately, many of processors and exporters complain the price of raw materials ('red snapper') keep increasing while the international market price remains the same. The processors argue that there has been lack of supply from the fishermen. The fishermen now have high bargaining position power, if a processing plant or exporting company does not want to buy the fishes at high price, the fishermen would sell them to another plant or company.

In addition to that, Indonesian fishery exports to U.S., Canada and Europe, including snapper from various exporters have been rejected several times due to the presence of salmonella or because the products were filthy. Some companies are currently included in the Canadian import alert list as shown in the Canadian Food Inspection Agency's official website and Food and Drugs Agency's import alert.

There is also a report revealing that fishing vessels belonging to one of major snapper exporters had been arrested in Arafura water, Papua. The ships had committed violations because all of the transfers should be made in the harbor in accordance with the existing regulation. The patrol officers also found other violations. The ships lacked of necessary documents such as the seaman book, the crew list, the captain's qualification certificate, and the sea worthiness papers.