

## **The Crisis in Philippine Fisheries: The Case of Roundscad (Galunggong)**

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### **I. Introduction**

There is a crisis in Philippine fisheries. Most fishing grounds in the country are heavily exploited that we may run out of fish supply in the near future. Important marine habitats are in critical conditions. Consequently, a significant number of fishing populations are living below poverty threshold.

Given these contexts, in November 15-16, 2012, various civil society organizations, community-based organizations, government agencies and academe joined together and made a resounding call for a roadmap to recovery for the Philippine fisheries. After reviewing a plethora of roadmaps, the Philippine Roadmap to Sustainable Fisheries is formulated to focus on the real issue of overcapacity or heavy exploitation of fishing grounds. It is governed by the sustainable development framework that recognized the fish requirements of the current generation without jeopardizing the needs of the future generations. At current levels of exploitation, we are taking away the rights of those who are unborn to enjoy their shares of the coastal resources. This should be reversed at a level that can support a population that is growing at more than 2%.

In the absence of updated and reliable data on fisheries, we have yet to fully assess the extent of the risks posed by excess fishing capacity. The 'lack of full scientific certainty' should not hinder us from realizing cost-effective measures to prevent damage to coastal and marine resources and further delay the achievement of well-being of those who directly and indirectly depend on fishing.

### **II. General Conditions of Philippines Fisheries**

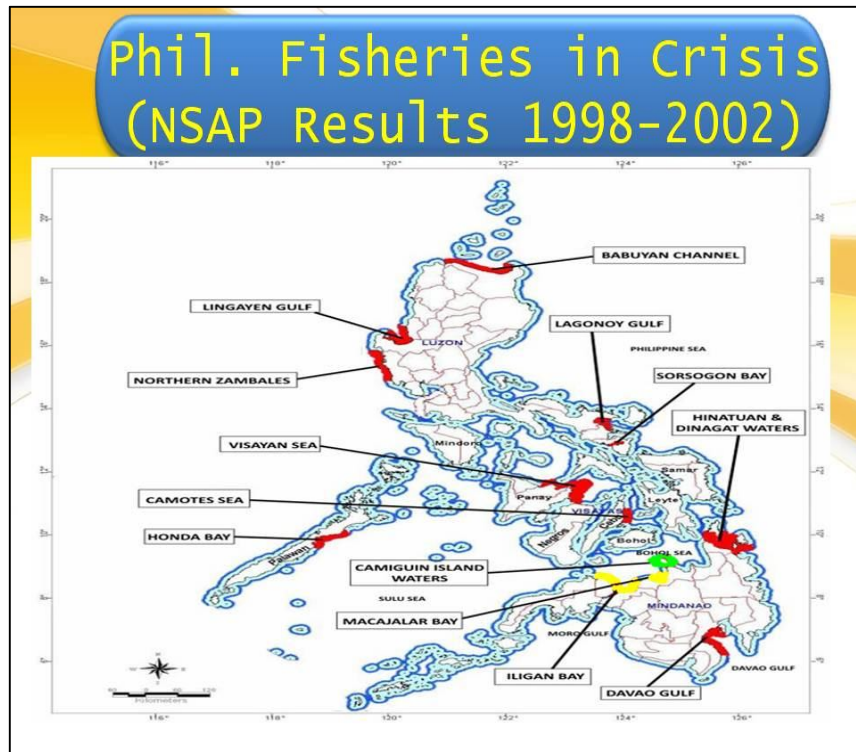
Recent data by the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR), the main government agency that is mandated to ensure fish security, declared that ten (10) of the thirteen (13) fishing grounds in the country showed heavy exploitation rate (National Stock Assessment Program, DA-BFAR, 2008). Figure 1 shows that Camiguin waters, Iligan Bay and Macajalar Bay located in Mindanao are those areas relatively in good conditions.

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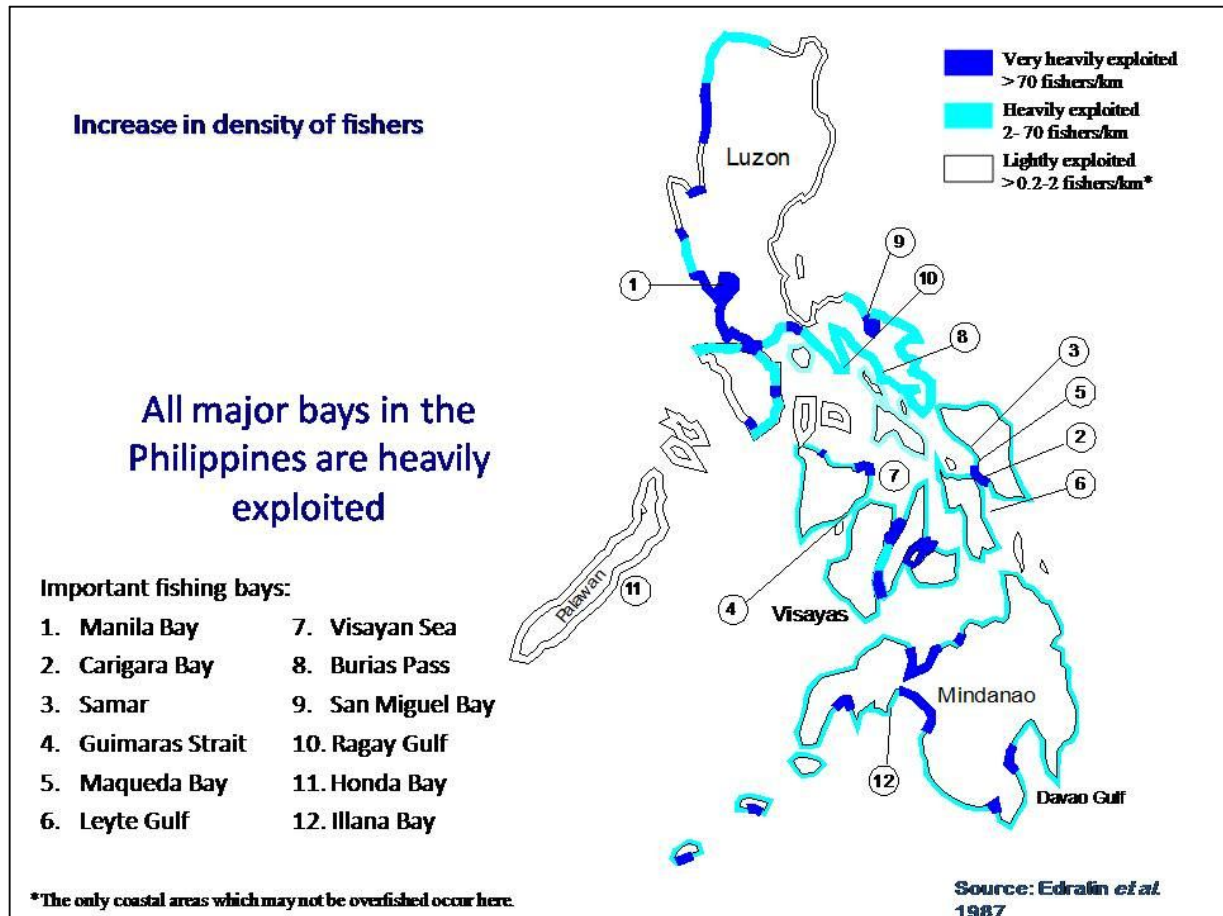
Figure 1. Map of National Stock Assessment Program Results



Source: DA-BFAR, Regulation and Quarantine Division, February 29, 2012 during a meeting of the National Agriculture and Fishery Council-Committee on Fisheries and Aquaculture, Quezon City.

In an earlier study, it was revealed that all major fishing bays in the Philippines are heavily exploited including Manila Bay, San Miguel Bay, Honda Bay and Illana Bay with over 70 fisherfolk competing on a kilometre resource. See Figure 2.

Figure 2. Map of Fishing Grounds That Are Heavily Exploited, 1987



This means that we have too many fishers with very few fish to catch. If this continues unabated, we will be fishing ourselves out of business.

The sorry state of our coastal resources consequently reflects on the worsening poverty conditions of fishing communities in the country. Fisherfolk are considered to be the poorest of the poor with 41.4% poverty incidence in 2006 and 2009. Table 1 shows that the poorest fisherfolk are found in the CARAGA Region, Region IX and Region X.

Table I. Poverty Incidence for Fisherfolk, By Region, 2003, 2006, 2009

Regions	Poverty Incidence			Increase/Decrease	
	2003	2006	2009	2003-	2006-

				2006	2009
PHILIPPINES	35.0	41.4	41.4	6.4	0
Region I	18.0	42.8	43.8	24.8	1.0
Region III	21.1	18.7	10.6	(2.3)	1.3
Region IV-A	26.9	29.6	29.9	2.7	0.3
Region IV-B	41.1	39.1	35.5	(2.0)	(3.6)
Region V	52.4	49.8	47.3	(2.6)	(2.4)
Region VI	31.9	33.0	30.4	1.0	(2.5)
Region VII	49.2	50.2	48.0	0.9	(2.1)
Region VIII	29.0	40.2	45.7	11.2	5.5
Region IX	46.0	51.4	48.2	5.4	(3.3)
Region X	48.9	44.9	51.5	(3.9)	6.5
Region XI	32.7	45.6	42.5	12.9	(3.1)
Region XII	36.0	31.2	38.4	(4.8)	7.2
ARMM	24.9	47.0	43.8	22.1	(3.2)
CARAGA	56.0	56.5	59.2	0.6	2.7

Source: National Statistical Coordination Board, 2009 Official Poverty Statistics,  
[http://www.nscb.gov.ph/poverty/2009/tables\\_basic.asp](http://www.nscb.gov.ph/poverty/2009/tables_basic.asp)

The declaration of overfishing in the Philippines is coupled with the declaration that *galunggong* (roundscad), once considered to be the poor man's and woman's fish, is now being imported from China and Taiwan. This indicates that the crises in fisheries will affect both producers and consumers. The collapse of fisheries will definitely have a corresponding impact to an estimated 1.5 million men and women fishers who directly depend on fisheries for their livelihood and subsistence. If current trend continues, the fisherfolk, considered to be the poorest among the poor, will find themselves fishing out of business.

### III. Galunggong Production

Galunggong has different names in other parts of the country. Here are some of them:

Alumahan .... Tawi-Tawi

Barranti ..... Apari

Borot .....Cagayan de Oro City

Budboron ....Cebu

Malatindok ... Tacloban

Malimno .....Catbalogan, Samar

Marot or Tamodios.... Iloilo

Sibubog .....Bicol

Tayang (malaki) ....Cotabato City

Tulay - .....Jolo, Sulu (Taosug)

*Decapterus spp.* (Round scad) locally known as galunggong of the family Carangidae is one of the most important small pelagic fishes caught in huge quantities in the Philippine waters most of the year. It ranked second among the major species of fish produced for over the span of twelve years from 1979 up to 1990 sharing an average of about 10.67 percent to total fish supply (Fisheries Statistics, 1991 as cited in p.49-50). However, this species obtained the highest commercial landings with an average of about 132,224 MT from 1975 to 1985 (Calvello 1987) and 202,163 MT from 1986 to 1993 (Fish. Statistics 1986-1993, as cited in p.50). Most of the round scad catches are contributed mainly by the commercial sector. The price of the said fish is cheaper compared to other fishes due to the large volume of landings in the market.

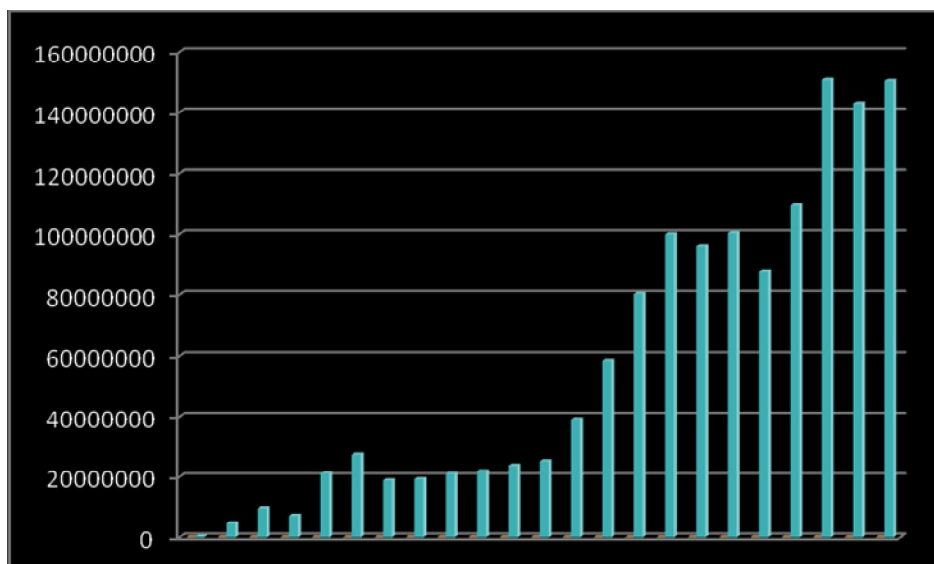
Figure 3 shows the traditional fishing grounds of round scad in the Philippines both commercial and municipal sectors are: Sulu Sea, Visayan Sea, Moro Gulf, Lamon Bay, Cuyo Pass, Ragay Gulf, Batangas Coast, Tayabas Bay, Samar Sea, Camotes Sea, Sibuyan Sea, Bohol Sea, Davao Gulf and Babuyan Channel. Further, municipal fishing grounds include areas of Northern and Southern Mindanao and Casiguran Sound (p.50).

Figure 3. Map of Fishing Grounds of Galunggong in the Philippines



In 1950, roundscad was not even listed among the top ten commercial fisheries production by major fish species in the Philippines. But the following year, roundscad or galunggong (*Decapterus* sp.) became the most productive fish in the country. And it has been on top for 38 times since then. Also, it has been ranked 6 times as a second placer, and once on rank 3 since 1950 to 1997. Figure 4 shows a graphical presentation of galunggong production from 1950-1972. It showed that since the 1960s, round scad production is at its peak.

Figure 4. Graphical Presentation of Round scad Production, 1950-1972, in kilos



Source: Fisheries Statistics, 2011.

From 1973-2001, round scad production fluctuated. This is also the time when data have been aggregated between commercial production and municipal production. Table II shows that commercial production outweighs municipal production. This showed that heavy pressure on round scad species is attributed to commercial fishing vessels.

**Table II. Commercial and Municipal Production of Roundscad, 1976-2001**

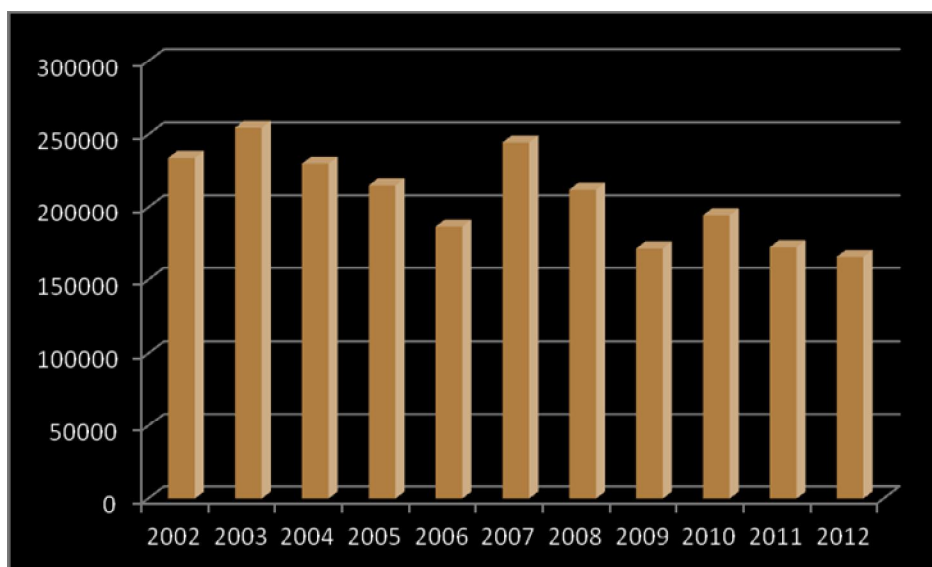
Year	Commercial Production	Municipal Production	Total Production
1976	184,998	39,666	224,664
1977	156,631	26,067	182,698
1978	115,030	27,583	142,613
1979	114,868	31,338	146,206
1980	111,316	20,813	132,129
1981	120,857	29,090	149,947
1982	150,266	32,987	183,253
1983	131,261	33,762	165,023
1984	105,013	26,570	131,583
1985	106,262	25,446	131,708
1986	151,298	24,557	175,855
1987	154,059	30,352	184,411
1988	149,213	29,474	178,687
1989	179,873	29,948	209,821
1990	220,379	28,921	249,300
1991	247,330	No data	247,330
1992	246,960	No data	246,960

1993	243,565	26,545	270,110
1994	210,276	22,901	233,177
1995	235,813	23,955	259,768
1996	200,418	23,506	223,924
1997	196,588	32,290	228,878
1998	216,821	28,322	245,143
1999	219,519	28,943	248,462
2000	225,861	30,115	255,976
2001	250,679	32,108	282,787

Source: Fisheries Statistics 2011.

However, if we analyze round scad production for the last ten years, a significant decline is shown between 2003-2006, 2007-2009 and 2010-2012. This indicates the uncertainty of round scad production that maybe attributable to several factors. One of them is heavily exploitation.

**Figure 5. Galunggong Production in the Philippines, 2002-2012**





Roundscads are generally caught in the West Sulu Sea which contribute about 37 percent of the total commercial catch . Other fishing areas that have abundant roundscads are the following: Visayan Sea, South Sulu Sea, Moro Gulf, and East Sulu Sea. Roundscads have also been caught at the Samar Sea, Batangas Coast, South Sulu Sea and Lamon Bay. Here are the fishing grounds for roundscads (production in metric tons) from 1991-1992

**Table III. Fishing Grounds, Year and Production (mt)**

<b>Fishing Ground</b>	<b>1991</b>	<b>1992</b>
West Sulu Sea	2,250	2,712
South Sulu Sea	54,638	76,408
Visayan Sea	34,765	31,529
Moro Gulf	16,535	36,990
Lamon Bay	5,024	10,988
East Sulu Sea	6,285	7,535
Cuyo Bay	3,760	1,687
Tayabas Bay	4,199	5,326
Batangas Coast	808	942
Bohol Sea	6,100	6,889
Others	112,596	93,031
<b>TOTAL</b>	<b>559,860</b>	<b>274,037</b>

**Source: Bureau of Agricultural Statistics**

Table IV shows that the major fishing gears used to catch roundscads are purse seine, bagnet and trawl. Here is the average total production of round scads by type of gears used, 1979-1987 (in metric tons). This indicates that commercial fishing industry contributes more in terms of round scad production compared to municipal fishing industry. This also indicates a growing competition among municipal and commercial fisherfolk. As the resource dwindles, competition to catch is intensified. The municipal fisherfolk are often in the losing end given the limitations in their fishing gears.

**Table IV. Types of Gears and Volume of Fish Catch**

<b>Fishing Gear</b>	<b>Volume of Fish Catch</b>
Purse Seine/Ringnet	83,305
Trawl	22,289
Gill net	9,238
Hook and Line	5,881
Round haul seine	1,562
Beach seine	1,126
Fish coral	1,017
Long line	1,047
Others	1,845
<b>TOTAL</b>	<b>155,568</b>

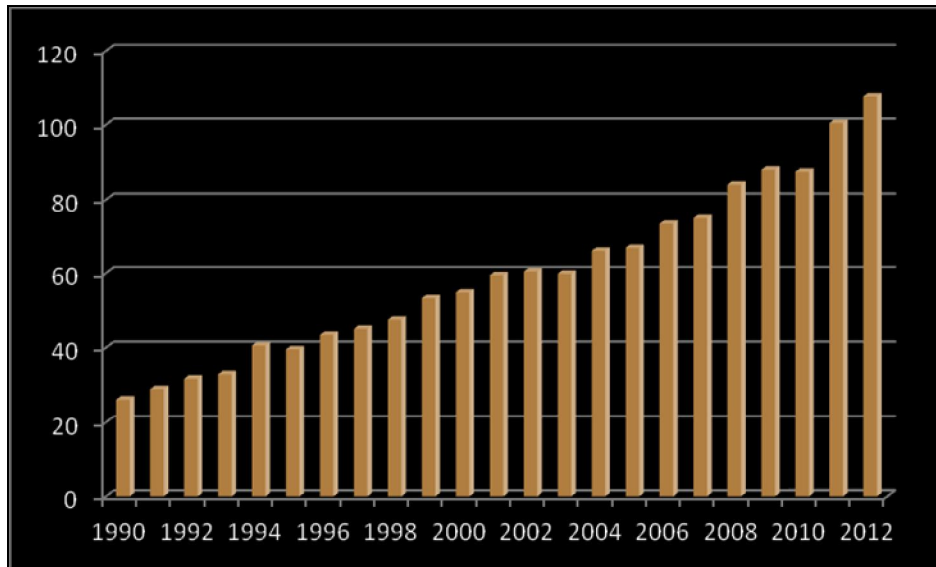
In 1997, the total commercial production of roundscad was 196,588 metric tons or about 22.2 % of the total commercial fish production, the highest among the top ten fisheries production in the country. In the same year, the total marine municipal production of roundscad reached 32,290 metric tons (about 4.2% of the total municipal production) and it ranked number 7. No other Philippine fishes have come closed to roundscad production. Tuna and tuna like species landed five times in Rank 1, and once in Rank 2. Slipmouth landed only four times in Rank 1 from 1950 to 1997, and 22 times as Rank 2, and three times in Rank 3. Table V indicates that no other fishes have ranked first since 1950 to 1997.

**Table V. Number of Rankings of Top Three Most Productive Fishes in the Philippines, 1950-1997**

<b>Species</b>	<b>First</b>	<b>Second</b>	<b>Third</b>
Roundscad	38	6	1
Tuna and tuna like species	5	1	0
Slipmouth	4	22	3
Sardines	0	11	15

Figure 6 shows the retail price of round scad from 1990-2012. It shows an increasing trend in terms of retail price from Php26.06 in 1990, Php54.90 in 2000 and 107.68 in 2012. This indicates that the lowly galunggong is no longer affordable to the ordinary people.

**Figure 6. Retail Price of Galunggong, 1990-2012**

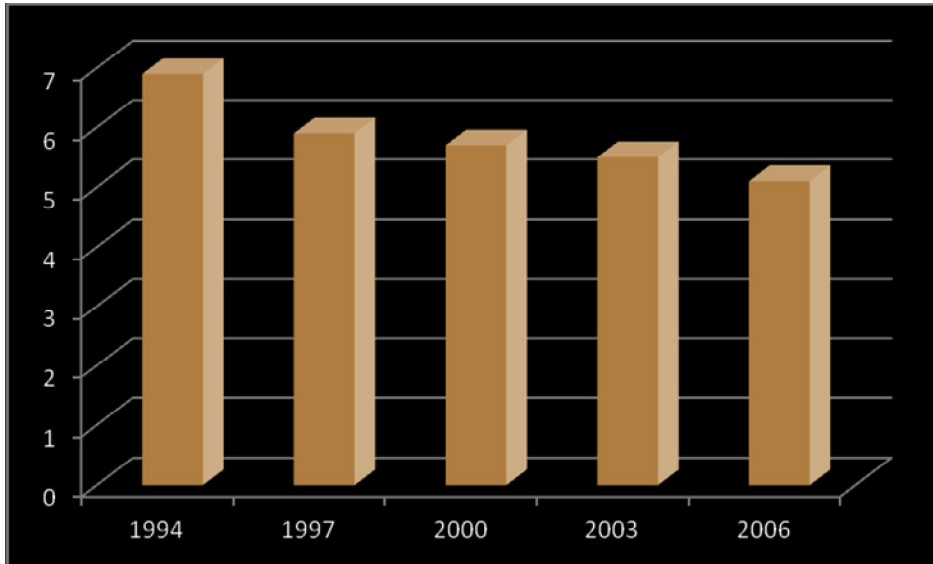


Source: Bureau of Agricultural Statistics

But price dynamics in galunggong is only a symptom of a larger problem in fisheries. For one, price increases of galunggong indicate that there is already a problem in market supply. As the supply of marine fish declines due to overfishing, the fish catch of roundscad in the country's coastal waters has similarly declined, thus putting pressure on its price to increase (Garcia, et. al., 2010, p.3). Moreover, it is also a symptom of structural defects in the Philippine fisheries industry where much needed post harvest facilities, road and telecommunication networks are glaringly absent. The formation of and dynamics in roundscad and tilapia prices are positively associated with the increasing number of market-related infrastructures like telecommunications and transport facilities (Garcia, et.al., 2010, p.10). Farm to market roads are needed to link fish production areas to landing sites and finally to retail markets in fish deficit regions (Garcia, et.al, 2020, p.10).

It is no wonder that the share of fish to family expenses has considerable went down from 6.9% in 1994 to 5.1% in 2006. It can be inferred from Figure 6 that due to steep increase in the prices of galunggong, there is a corresponding decline in the shares of fish to total capita expenses. Simply, more and more families can no longer afford the growing prices of fish particularly galunggong.

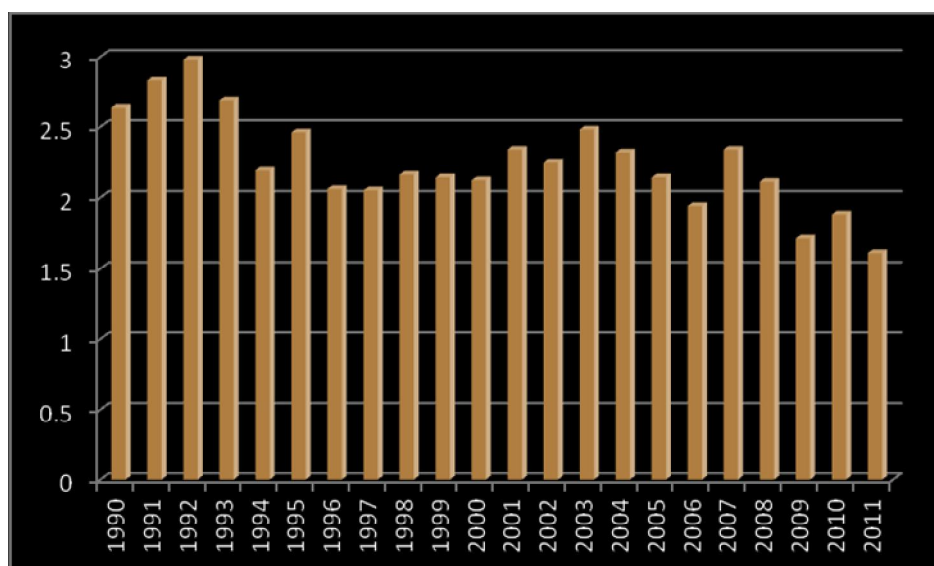
**Figure 7. Share of Fish to Total Food Expenditures By Year**



**Source: Bureau of Agricultural Statistics**

Tilapia and bangus have already replaced galunggong as the poor woman's and man's fish. In fact, Figure 8 indicates that supply utilization of galunggong in 1990-2011 is fluctuating. It is because utilization is generally affected by price fluctuation. Galunggong has become unaffordable that people substitute tilapia and bangus as staple fish.

Figure 8. Supply Utilization Account of Galunggong, 1990-2011



Source: Bureau of Agricultural Statistics

#### Conclusion:

Roundscad supply had been fluctuating and moving at a slower rate in the past 12 years. Strategies on increasing fish catch vis-à-vis efficient marketing system were among country's development thrusts. In the case of roundscad, however, it was given attention by national policy makers only recently as manifested in the launching of "Operation Galunggong: Presyong Abot-kaya ng Mamamayan" on February 14, 1991 in selected markets in Metro Manila purposely to make it affordable to the consuming public. However, the problem really is not only in market but in supply. The Philippine government needs to focus on how to increase round scad production. With the law of supply and demand, with more supply prices tend to decline.

Due to the biological nature of roundscad which abound only on deeper waters, its supply comes mostly from commercial rather than the municipal sector. But government programs/projects which call for the introduction of modern fishing technologies, improved vessel operating technique, and promotion of more efficient fishing gears make the problem worst. If only the municipal fishing grounds are left to the municipal fisherfolk, as intended in the Philippine Fisheries Code of 1998, round scad production may increase.

It has been observed that most traditional fishing grounds for roundscad are heavily exploited and almost depleted as manifested in the declining roundscad catch. Thus, an extensive exploratory study to determine the productivity of the traditional as well as non-traditional fishing grounds vis-à-vis the prevailing monsoon must be conducted. Moreover, a comprehensive resource assessment project should be implemented to identify and determine the most productive and profitable fishing grounds. An overly fished area can then be given a chance to recover and restore its natural productivity.

Exploitation of non-traditional fishing grounds as well as restoration of overfished areas can be enhanced through intensive information campaign and technology.

References:

Bimbao, Gaspar D., Ma. Carol E. Gomez, and Erlinda M. Ramos. 1991. Trends and prospects of roundscad in the Philippines. Fishery statistics bulletin, vol. 1, No. 8, May 1991. 20p. (mimeo)

Calvelo, Rosita R. 1997. Review of the Philippine small pelagic resources and their fisheries, pp.259-299. In: M. Devaraj and P. Martosubroto, eds. 1997. Small pelagic resources and their fisheries in the Asia-Pacific Region. Proceedings of the APFIC Working Party on Marine fisheries. First Session, 13-16 May 1997, Bangkok, Thailand. RAP Publication 1997/31, 445p.

Fisheries Statistics of the Philippines. Manila, Bureau of Fisheries and Aquatic Resources.

Roundscad exploration by Purse Seine in the South China Sea (West Philippine Sea), Area III: Western Philippines. Pastoral, Prospero C., Escobar, Severino L., Lamarca, Napoleon J., Proceedings of the SEAFDEC Seminar on Fishery Resources in the South China Sea, Area III: Western Philippine.