

# Enriching the Philippines Fisheries Resources through Closed Fishing Season Policies <sup>1</sup>

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## Introduction

The Philippines, a nation of more than 7, 100 islands, is considered a marine sanctuary that teems with more than 3000 species of fish, rich corals and other sea creatures. With one of the world's longest coastlines, the country has vast area of fishing ground that serves as huge food basket providing food security and livelihood to millions of Filipino fisherfolks. The Philippine fishery is also a vital sector to the economy contributing 18.6% to gross value added (GVA) in agriculture and US\$720 million of net export earnings in 2012.

However, the country's fisheries resources are rapidly being depleted and overexploited. Overfishing and over dependence on the resource for food and income have long been considered pressing issues that deteriorate our fisheries resources. Technologies to improve the fishing effort have dramatically increased making it possible to catch every fish in the sea. And at the rate of the current exploitation, fisheries expert Daniel Pauly alarmingly pointed out that many stocks could be eliminated within 25 years. Hence, while the ability to fish has improved, it does not guarantee a catch on a daily basis.

In recent years, the productivity of some of the major fishing areas in the country has declined. In 2011, the decrease in the volume of catch posted a negative growth rate of 0.9% and a much larger decline of 16.8% in 2012. Fish as important source of food is increasingly becoming scarcer. Icons of food security such as round scads or commonly known as "*galunggong*", sardines and anchioves have greatly decreased in quantity. The prices of these fish, considered to be the Filipino's poor man's fish, have sharply increased making them less affordable especially to the low-income populace. The situation has seriously jeopardized the security which fish once provided to buffer not only the food requirement of the country but also the livelihood and source of income of the small-scale fisherfolks, commercial fishing operators and other stakeholders across the fisheries sector.

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The Fisheries Code of 1998 (Republic Act 8550) provides the legal framework and guiding principles for the development, management, protection and conservation of the Philippine fisheries and aquatic resources. One of the major strategies to safeguard the fisheries sector is the implementation of the closed fishing season in selected waters in the country. This paper highlights closed fishing season policy adopted to protect the sardines in the Visayan Sea and Zamboanga Peninsula and the round scad or “*galunggong*” in Palawan.

### **The Fishing Industry: The Status of Sardines and “*Galunggong*”**

One of the principal stocks exploited in the Philippines is the small pelagic (surface- and mid-water-dwelling) fishes. As a group, small pelagics are comprised of round scads (*Decapterus spp.*, *Carangidae*), anchovies (*Stolephorus spp.*, *Engraulidae*), sardines (*Sardinella spp.*, *Clupeidae*) and mackerels (*Rastrelliger spp.*, *Scombridae*). Also included in this group are the round herrings (*Clupeidae*), flying fishes (*Exocoetidae*) and halfbeaks (*Hemiramphidae*) (Zaragoza *et al.*, 2004). Small pelagics play important role not only in the fisheries industry in the Philippines but also in food security as they are considered the main source of inexpensive animal protein especially for the poor and lower-income groups.

Region 9 or Zamboanga Peninsula is one of the top fish producing regions in the country, ranking third behind Regions IV-B and ARMM in terms of total fish production. It is the center of sardines (*Sardinella spp.*) production in the Philippines covering about 70% of the country’s total volume of production in the last 10 years. On the other hand, the Visayan Sea which covers an area of about 10,000 km<sup>2</sup> is habitat for various food fish, mostly pelagics, such as sardines, mackerels, and round scads. According to Guanco *et al.* (2009), sardines accounted for 35% of the total catch in the Visayan Sea in 1998-2002.

The sardine fishing groups are classified into commercial and municipal. They differ in terms of the capacity of fishing vessels, selected gears used in fishing and the coverage area on where to fish. Municipal marine fisheries operate in coastal waters within 15 km from the coastline (“municipal marine waters”), using vessels  $\leq 3$  gross registered tonnes (GRT), as well as fishing without the use of vessels. Commercial fisheries operate outside municipal waters, using vessels  $> 3$  GRT. Municipal fishers mainly provide the sardines supply for the bottling and other cottage industries while the commercial fishers supply the raw materials for the canning factories.

Specifically in Zamboanga Peninsula, catch at the municipal level comprise 12% of the total volume of sardines production in the region while the larger 88% is supplied by the commercial fishers. The sardines industry in the region is composed of 20 commercial fishing operators, 12 canning factories, 21 bottling companies, four tin can manufacturers, 14 establishments in the allied industries and associations (e.g. suppliers of other ingredients such as cooking oil, condiments, vegetables used, etc.) 2,046 licensed municipal fisherfolks and 588 licensed commercial fishing vessels. In addition, it supports about 35,000 laborers and workers including those who are hired in allied industries such as trucking, shipping, stevedoring, packing, ice plants and cold storage.

On the other hand, the “*galunggong*” (round scad; *Decapterus spp.*) is one of the most important small pelagic fishes commonly caught in the Philippines in terms of volume/tonnage (Pastoral *et*

*al.*, 2000). The traditional fishing grounds of round scad in the county both commercial and municipal include the Sulu Sea, Visayan Sea, Moro Gulf, Lamon Bay, Cuyo Pass, Tangay Gulf, Batangas Coast, Tayabas Bay, Samar Sea, Camotes Sea, Sibuyan Sea, Bohol Sea, Davao Gulf and Babuyan Channel. It is an important fishery resource in Palawan which accounts for 92% and 22% of the total landed catch in Navotas fish port and the entire country, respectively.

Pressing issues on declining fish catch has been observed both for sardines and round scads. In 2011, sardines catch in Zamboanga Peninsula marked its sharpest decline of 44% while in the Visayan Sea, the volume of catch of sardines and mackerel decreased by 24%. Similar trend was observed in the volume of round scad caught in Palawan which decline by 40% from 2002 to 2012. Given this alarmingly rate of decline of fish catch and the relatively immense magnitude of employment and livelihood that depends on these fisheries industries, the implementation of the closed fishing season is seen as a crucial mechanism to improve the condition of these fisheries resources.

### **Closed Fishing Season Policies**

In view of the pressing issues on declining sardines catch in Zamboanga Peninsula and the Visayan Sea and in Palawan the closed fishing season policy was implemented. The policy aimed to increase the fish stock and conserve and protect these fisheries resources.

#### **DA-DILG Joint Administrative Order No. 1, Series of 2011**

The Department of Agriculture (DA) and the Department of Interior and Local Government (DILG) Joint Administrative Order (JAO) No. 1 was promulgated in 2011 to establish a closed season for the conservation of sardines in East Sulu Sea, Basilan Strait and Sibuguey Bay. The closed fishing season is applied for commercial-scale harvest of sardines for a period of three months starting December 2011. The no-fishing zone has an area of 13, 987 km<sup>2</sup> or 4,078 nautical mi<sup>2</sup> covering East Sulu Sea, Basilan Strait and Sibuguey Bay encompassing the western municipal/national waters of Zamboanga del Norte, the waters bordering south and eastern waters of Zamboanga City and southern portion of Zamboanga Sibuguey.

The JAO specifically defined the prohibited fishing gears which include commercial purse seine, commercial ringnet, commercial bagnet and scoop net. Stipulated in the Order is the prohibition of any person, association or corporation to kill or catch, or cause to be killed or caught or taken, any sardines in the identified conservation area using the prohibited fishing gears. The sell, offer or expose for sale of sardines caught in the conservation area is also illegal during the closed fishing season from November 1 to February 1, for a period of three (3) years from the promulgation of the Order.

A Transitory Provision indicating that the closed fishing season for the initial year of implementation shall cover the period December 1, 2011 to March 1, 2012. A peer review before and after this period shall be conducted by scientists and experts from the Bureau of Fisheries and Aquatic Resources (BFAR), the academe and the industry, to determine which month

between November and December shall the closed fishing season commence. These period are considered to be the peak spawning months of sardines.

Section 4 of the JAO provided for the sanctions in case of violation of the prohibitions of the Order. The penalties included imprisonment of six months and one to six years and/or fine of six thousand pesos Php6,000 (US\$124) and forfeiture of catch as well as administrative penalty of cancellation of fishing boat and gear licenses.

### **Closed fishing season policies in the Visayan Sea**

The protection and conservation of sardines, herrings and mackerels in the Visayan Sea through closed fishing season has been implemented since the late 1930s. On February 18, 1939, the then Department of Agriculture and Commerce, Bureau of Science Fish and Game Administration issued the Fish and Game Administrative Order No. 13 promulgating the regulations establishing the closed season for the conservation of sardines and herrings. The policy was implemented for four months (November 15 to March 15) in selected areas of the Visayan Sea, north of the island of Negros and between the northern parts of the island of Panay and Cebu.

The Fish and Game Administrative Order was revised to expand the covered area which included the coastlines and waters from the mouth of Danao River on the northeastern tip of the island of Negros, through Santa Fe, on the southeastern tip of Bantayan Island to Madridejos; thru the lighthouse on Gigantes Island; to Clutaya Island; to Culasi Point in Capiz province; eastward along the northern coast of Capiz to Bulacaue Point in Carles, Iloilo; southward along the eastern coast of Iloilo to the mouth of Talisay River; westward across the Guimaras Strait to Tomonton Point in Occidental Negros; eastward along the northern coast of the Island of Negros and back to the mouth of Danao River in Escalante, Oriental Negros. The revised policy specifically indicated the prohibition of any fishing gear using net with mesh less than 2cm when stretched. Fishing and collection of the prohibited fish species during the closed fishing season may be allowed only for scientific, educational, personal or propagation purposes. Further, any person, association, institution or corporation may be permitted to catch or cause to be caught the prohibited fish species subject to conditions that the then Secretary of Agriculture and Natural Resources may deem necessary to impose for the protection and conservation of these fish species.

The current closed fishing season policy in the Visayan Sea implemented in 2012 is based from the Fisheries Administrative Order (FAO) No. 167 issued in 1989. The FAO which originally set the period of closed fishing season for four months (November 15 to March 15) was reinstated starting 2012 for three months (November 15 to February 15). The policy stipulated the strict implementation of commercial fishing ban for sardines, mackerels and herring in the Visayan sea to allow the fish stock to recover during the spawning season. The closed fishing season policy covers the area from Danao River at the tip of Escalante north of Bacolod, at the eastern tip of Sta. Fe and northern tip of Madridejos in Cebu, to Gigantes Island in Carles, Iloilo and Caluya Island in Oriental Mindoro.

Section 2 of the AO stipulates the prohibition for any person, association or corporation to kill or catch, or cause to be killed or caught or taken from the restricted area, purchase, sell, offer or

expose for sale, or have in his possession or under his control any sexually mature sardines, herrings and mackerels or their larvae, fry or young known locally as "lupoy," "silinyasi," "linatsay" or "manansi" during the closed season. Particularly, commercial boats weighing 3.1 gross tons (GT) and above are included in the ban.

### **DA-DILG Joint Administrative Order No. 1, Series of 2015**

A closed season for the management of “*galunggong*” (round scad; *Decapterus* spp.) in Northern Palawan was established in 2015 through the Department of Agriculture (DA) and the Department of Interior and Local Government (DILG) Joint Administrative Order (JAO) No. 1. The JAO was initiated to achieve sustainability and climate change resiliency of the round scad fishery in Palawan. Also, the JAO aims to increase reproductive capacity, spawning potential and recruitment of round scad. The closed fishing season covers the conservation area of northern Palawan from the West Philippine Sea to Northern Sulu Sea under Regions IVB and VI with a total area of 35, 943 km<sup>2</sup>. It shall be implemented for three months (November to January), annually, and effective for three years starting 2015.

The provisions of the JAO indicated the scope of the closed fishing season, the monitoring and evaluation procedure (M&E), the implementation arrangement and enforcement of the policy, a review and adjustment procedure and penalty on violations. Specifically, the JAO disallow the use of three specific fishing gears such as bag net, purse seine and ring net. Catching of fish species other than round scad is still allowed in the conservation area provided that the round scad catch is not greater than 10% of the total catch. This implies that the “*galunggong*” can still be caught on limited scale. The M&E and review of the policy shall be conducted to evaluate its effectiveness and to identify and adjust the period of implementation of the closed fishing season. The JAO also highlights the important provision on continuous conduct of stock assessment and reproductive biology studies which can be substantiated by information from the commercial fishing sector. Results of these studies will help validate and clarify scientific questions related to the implementation of the policy. Further, the policy stipulated the involvement of the Philippine National Police (PNP), Philippine Coast Guard (PCG), the Local Government Units (LGU) and the BFAR Regulatory and Enforcement Officers in enforcing the policy. Through their involvement, the regulatory and policing functions to enforce the provisions of the policy are guaranteed.

### **Policy Implications and Conclusions**

The closed fishing season policy is an important initiative to conserve and protect the fisheries resources in the country. It provides for the sustainable use and exploitation of important fisheries resources. It should be noted that given the natural calamities and adverse effects of climate change, overfishing and overexploitation of the country’s fisheries resources may lead to extinction of important fish species and significant economic losses. Hence, the implementation of the closed fishing season is seen as significant mechanism to address such damaging effects.

Initial implementation of the closed fishing season indicated positive and significant results. Specifically for the DA-DILG JAO No.1 s. 2011 implemented along the waters of Zamboanga Peninsula, initial reports and claims suggest positive impacts on fish catch. The volume of

production in 2014 at 139, 141 metric tons (MT) increased by 20% from the sardines production in 2011 which was recorded at 116,363 MT. Associated hike of sardines population in nearby Regions 10 and 11 was also observed. This has become the basis for implementing closed fishing season policy to cover selected fish species in the Visayan Sea and the “*galunggong*” in Palawan.

To date, assessment studies are being conducted to provide empirical evidences of the impacts of the regulatory policy on sardine fishing in Zamboanga Peninsula and the Visayan Sea. The impact assessment studies would specifically evaluate the impacts of the policy at various levels: biophysical impacts on the resource stock; industry (i.e. cannery, bottling, dried fish) level impacts; and household level (income and livelihood) impacts. The studies will establish an evidence-based results in recommending the possible continuation of the closed fishing season policy. The impact evaluation can also identify lessons that can be useful to determine safety measures and alternatives that are responsive to the needs of the stakeholders such as the fisherfolks and related industries. Recommendations can also be drawn for the scaling up or adopting similar policy in other parts of the country to enrich the fisheries resources.

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