

## OUR BLUE ECONOMY AND THE CREATION OF THE DEPARTMENT OF FISHERIES AND AQUATIC RESOURCES

RAFAEL D. GUERRERO III, Ph.D.

Academician

National Academy of Science and Technology, Philippines

## We live in a Blue Planet



### What is the "Blue Economy"?

In 2010, Paul Gunther published his book on **"The Blue Economy: 10 Years, 100 Innovations, 100 Million Jobs"**

- "Marine-based economic development that leads to improved well-being and social equity, while significantly reducing environmental risks and ecological scarcities."

- "Prioritizing the use of the seas to benefit people, alleviate poverty, generate employment, and promote equity."

- "Integrates conservation, sustainable use of oil and mineral wealth extraction, bio-prospecting, sustainable energy production and marine transport."

- "The 'blue economy' (ocean-based) and 'green economy' (land-based) are interlinked and interdependent."



In the "Blue Economy" Conference held in Rio de Janeiro in 2012:

- "The sustainable management of aquatic ecosystems are necessary for sustainable economies"
- FAO Director-General Jose Graziano Silva:
- "The health of our planet as well as our health and food security all hinge on how we treat the 'Blue World'."

## WHAT OUR SEAS PROVIDE US

- Livelihood for more than 3 billion people in fisheries, tourism, maritime industry, oil, gas and mineral exploitation, etc.
- 2.6 billion people rely on seafood as their main source of protein
- 70% of oxygen in our atmosphere is produced by phytoplankton in the oceans
- 40% of the carbon dioxide in the atmosphere is bound in the sea

- 80% of the global trade in goods is transported by sea
- Industrial materials - sand, salt, phycocolloids, etc.
- "Pharmasea" - medicines, nutraceuticals, etc.
- "Ocean Energy" - Ocean Thermal Energy Conversion
- Climate Regulation - ocean currents serve as the Earth's "Thermostat"

“Our oceans are the 7<sup>th</sup> largest economy in the world with a value of US\$24 trillion.”

- World Wildlife Fund

## UN 2030 Agenda for Sustainable Development

### SDG 14 – Life Below Water

- Sustainable use of oceans and marine resources

## BENHAM RISE



- 13 million hectares of oceanic plateau, 250 km in diameter and 3,000 meters below sea level
- Rich in corals, minerals and gas
- The Philippines has “sovereign rights” as part of its continental shelf.
- Soon to be renamed “Philippine Ridge”

We need a Department of Fisheries and Aquatic Resources for a BLUE ECONOMY!

## REPORT OF THE COMMITTEE ON THE CREATION OF THE DEPARTMENT OF FISHERIES AND AQUATIC RESOURCES

### NAST Agricultural Sciences Division

Chair: Acd. R.D. Guerrero III

Members:

NS A.C. Alcala

NS G. C. Trono Jr.

Acd. R.G. Davide

Dr. M. D. Santos

## Rationale of the Committee

- One of the Resolutions made at the 38<sup>th</sup> Annual Meeting of the NAST is the creation of the Department of Fisheries and Aquatic Resources “to give more emphasis on sustainable fisheries, particularly mariculture which is the cheapest source of high quality protein and is our comparative advantage with potential for value-added export products.”
- The Committee was formed by the Agricultural Sciences Division of the NAST to review the Congressional initiatives for the creation of the Department of Fisheries and Aquatic Resources.
- The theme for the 39<sup>th</sup> ASM of the NAST is “Attaining Sustainable Development Goals: Philippine Fisheries and Aquatic Resources 20/20” based on Sustainable Development Goal No. 14 (Life Below Water) of the United Nations.

## The Review Process

- The Committee reviewed the three bills filed in the Senate for the Creation of the Department of Fisheries and Aquatic Resources, namely SBs 51, 242 and 937 and three bills filed in the House of Representatives for the same, namely HBs 426, 1427 and 1612.
- Upon review of the abovementioned bills, the Committee made recommendations.

## DEFINITION OF TERMS

- Fisheries - the industry dealing with the production (through capture and culture), processing and marketing of fish and other products from the aquatic environment
- Aquatic Resources - the natural environment or habitats (ecosystems) of plants and animals exploited for fisheries
  - include both freshwater and marine resources
  - include non-living components like minerals

## Our Comparative Advantage for Fisheries and Aquatic Resources

### Our Vast Aquatic Resources

- The Philippines is the third largest archipelago in the world with 7,100 islands and 36,289 km of coastline.
- Our country has 26.6 million hectares of coastal waters, 193.4 million hectares of oceanic waters and more than 800,000 hectares of inland waters. (Note: Our land area is only 30 million hectares.)

### Fisheries Provides Employment

- More than 2 million Filipinos are directly employed including 1.6 million small fishermen who are among the "poorest of the poor."

## Fisheries Contributes Significantly to Our Economy

- In 2015, the fisheries sub-sector contributed **14.3%** of the total output of the agricultural sector to which it is under, next to that of crops sub-sector, with gross earnings of **PhP 195.7 billion**.
- Fisheries is a net exporter of products (mainly tuna and seaweeds) while agriculture is a net importer of rice and meat products.
- Fisheries contributed **1.5%** to the GDP of our country in 2015.

### Fish is a major staple food of Filipinos next to Rice

- Fish is the cheapest source of animal protein in the diet of Filipinos.
- Aside from food, our fisheries also provide industrial products, nutraceuticals and drugs.

### The Philippines is an Outstanding Fisheries Producer in the World

- The Philippines ranked 7<sup>th</sup> of the Ten Top Countries in Fisheries Production of the World in 2012 and 5<sup>th</sup> of the Ten Top Countries in Aquaculture Production in the World in 2014.
- The Philippines ranks **No. 1** in World Milkfish Production, **No. 2** in Carrageenophyte Production and **No. 5** in Tilapia Production.

## Low Priority of Fisheries Under the Department of Agriculture

### Agriculture 2020 (NAST, 2012);

- In the commodity-based organization of the DA, "capture fisheries and aquaculture" are only regarded as "commodities" rather than as industries.
- "Fisheries is too big to be handled by the DA which is already being beset with many problems and challenges re decline of productivity and competitiveness."
- "The historical neglect of fisheries by the DA had led to a continuing clamor from the fisheries sector and some members of Congress for a separate Department of Fisheries."

- Under the DA, the fisheries sub-sector had a growth rate of only **0.82%** in 2010 and **-0.45%** in 2014.
- In 2016, the budget of the Bureau of Fisheries and Aquatic Resources under the Department of Agriculture was only **13.8%** of the DA's **PhP 48 billion** budget although fisheries contributed **19%** to the total agricultural output
- Sen. Pangilinan: "Our national territory is **20%** land and **80%** water, but the budget of the Department of Agriculture is **80%** for land and not even **20%** for aquatic and marine resources."

### THE INDONESIAN MODEL FOR FISHERIES AND AQUATIC RESOURCES MANAGEMENT AND DEVELOPMENT

- The Indonesian Government established its Ministry of Marine Affairs and Fisheries (MMAF) in 1999 separate from its Ministry of Agriculture because Indonesia is the world's second largest archipelago with more than **13,000** islands and a coastline of **54,720** km.
- In 2015, the fisheries sector of the country grew by **8.37%** compared to **4.73%** of the overall economy.

- The MMAF had a budget of US\$ 1 billion in 2016.
- Indonesia ranked **No. 2** among the Top Ten Countries of the World for Aquaculture in 2014.
- Indonesia overtook the Philippines as the world's top producer of carrageenophytes (red seaweeds) ten years ago. It now has more than 2 million hectares planted to seaweeds compared to only around 60,000 hectares in the Philippines.  
"Higher productivity from better use of resources could lift Ph GDP by roughly **US\$3 billion** a year!" – Dr. Arsenio Balisacan, Chair, Philippine Competition Commission

### The Bottom Line

A Department of Fisheries and Aquatic Resources separate from the Department of Agriculture in our country:

- (1) Will give more attention and support for improving the productivity of our fisheries and aquatic resources on a sustainable basis for more economic benefits.
- (2) Will better address the alleviation of poverty of the small fisherfolk who are among the "poorest of the poor"; and
- (3) Will boost our **Blue Economy**.

### RECOMMENDATIONS OF THE COMMITTEE

- Of the bills filed in Congress for the creation of the Department of Fisheries and Aquatic Resources, **SB 51** authored by Sen. Francis Pangilinan and **HB 426** authored by Rep. Gloria Macapagal Arroyo are recommended as primary bills. The other bills filed can be consolidated with these two.
- Only the living aquatic resources should be within the scope of the DFAR's mandate. The non-living aquatic resources (e.g., minerals, OTEC) should be left to the responsibilities of the concerned agencies such as the DENR and DOE. An Inter-Agency Coordinating Council, however, should be created to ensure the effective cooperation and coordination of such agencies re fisheries and aquatic resources.

- Aquatic ecosystems (i.e. mangroves and coral reefs) should be kept under the "biodiversity conservation" mandate of the DENR. There should be an Inter-Agency Coordinating Council to include the DENR, proposed DFAR and concerned LGUs for resolving issues/conflicts related to fisheries.
- The National Fisheries Research and Development Institute of the DFAR should have Regional Centers for its efficient and effective operation.
- More comments are given in the annotated versions of **SB 51** and **HB 426** to be made available in the NAST website.

**“The Sea is Our  
Future”**

**Fish Be  
With You!**