MEETING REPORT
Follow-up of Blue swimming crab Data Consolidation in Fishery Management Area (WPP) 712
Bogor, May 9, 2019

Background and Agreements from Previous Meetings:

Harvest Strategy (HS) or fisheries utilization strategy is a framework that includes management actions that have been determined for a fishery (at the management unit level) needed to achieve agreed biological, ecological, economic and/or social management objectives. Harvest Strategy is an important component of the fisheries management framework as a formal and consistent approach to management decision-making processes by determining actions to be taken based on current and future fisheries performance.

Industries that are members of the Indonesian Blue swimming crab Association (APRI) feel that the blue swimming crab fishery stock is declining, the size is getting smaller while the number of mini plants and market demand is increasing. In this regard, a formal and structured framework for the management decision-making process is needed by determining the actions to be taken based on the performance of the current and future crab fisheries, through the formulation and implementation of the blue swimming crab fishery utilization strategy.

Early meeting of blue swimming crab Fisheries Development Strategy Preparation on December 17 which was attended by around 38 people consisting of Acting Director of Fish - Marine and Fisheries Resources Management, Head of Sub Directorate of Inland Sea Fish Resources, Territorial and Aquatic Marine and Fisheries Islands, Pusriskan - Marine and Fisheries , BBPSE - Maritime Affairs and Fisheries, Medical Sciences, Universities (Bogor Agricultural Institute, Diponegoro University and Haluoleo University), NFI Crab Council - Crab Sustainability Envoy, Indonesian Rajungan Management Association (APRI), ISLME National Project Officer FAO, Non-Governmental Institutions (Sustainable Fisheries Partnership, Environmental Defense Fund, Starling Resources, Marine Stewardship Council), and fisheries consultants at Alana Sentul Hotel. The initial meeting discussed the preparation of document preparation and mapping of Indonesian crab fisheries data.

The second meeting was held on February 19, 2019 at the Santika Hotel Bogor which was attended by around 45 participants consisting of Head of Sub Directorate of Inland Sea Fish Resources, Territorial and Waters of Marine and Fisheries Islands, Reearch and Development Centre - Marine and Fisheries, BBPSE - Marine and Fisheries, Komnaskajiskan, The University (Bogor Agricultural Institute, Diponegoro University and Haluoleo University), NFI Crab Council - Crab Sustainability Envoy, Indonesian BSC Association (APRI), Non-Governmental Institutions (Sustainable Fisheries Partnership, Environmental Defense Fund, and Marine Stewardship Council) which resulted in an agreement Among them are the need to establish a BSC harvest strategy secretariat so that it becomes a gathering place for all information that can be gathered from the parties involved in the preparation of harvest strategy documents.

The third meeting, namely Discussion of Operational Objectives and Fisheries Performance Indicators in the FMA 712 BSC Fisheries Harvest Strategy was conducted on 8 and 9 April 2019 at the Royal Padjajaran Hotel Bogor attended by 35 participants consisting of Head of Sub Directorate of Fisheries - Directorate of Marine and Fisheries Bappenas, Head of Sub-Directorate of Utilization SDI Inland Sea, Territorial and

Waters Islands, Fisheries Research Center (Pusriskan), Non-governmental Institutions (Sustainable Fisheries Partnership, Starling Resources, Marine Stewardship Council and Environmental Defense Fund), Indonesian BSC Association (APRI), IPB University, National Project Officer ISLME FAO, Packard Foundation and Scientist Dr. Jeremy Prince.

Some key results from the 8-9 April 2019 meetings:

1. The harvest strategy for using blue swimming crab is very important and urgent to do because:
    - A Decrease in blue swimming crab stock in the field marked by the results of the SPR study <20% due to overfishing (APRI)
    - Regulation of export destination countries, especially the USA, which requires a sustainable blue swimming crab fishing system. For information, the USA constitutes 90% of the world's crab market and more than 50% is supplied from Indonesia.
    - From an economic standpoint, there is more effort from the Chinese government to massively export red crab *(Portunus hanii)* to the USA, which is believed to have shifted the supply of crab products from Indonesia because of more competitive prices and better harvest indicators, especially closed catching (May-August).

2. The fisheries management unit to be managed in the blue swimming crab harvest strategy is focusing at FMA 712.

3. Conceptual objectives are in accordance with the objectives of the BSC Fisheries Management Plan.

4. The agreed operational objectives:
    - The spawning potential ratio (SPR) (the more appropriate word will be searched) from the crab increases to 20% in the WPPNRI 712 in a period of 5 (five) years, at the reference point the limit is 15%.
    - Improve the crab fishery stock above the limit reference biomass (B_{limit}) (including evaluation of the CPUE trend movement) / Improve the crab fishery stock in the target reference biomass (B_{target}) within a period of 5 (five) years.
    - Maintaining a maximum export production volume on average for the past five years.
    - Maintaining economic conditions that guarantee business continuity above Break Even Point (BEP). (socio-economic indicators will be further formulated).

5. The performance indicators that will be used in the strategy for utilizing the crab fisheries are:
    - Spawning Potential Ratio (SPR) data is supported from APRI and validated by Dr. Zairion Rajungan Scientific Team;
    - Catch per Unit Effort (CPUE) supported data is supported by the Indonesian Crab Management Association, Fish Quarantine Agency, and Quality Control, Statistics Central Agency, Pusdatin, Directorate General of Strengthening Maritime and Fishery Product Competitiveness, Marine Fisheries Research Institute, Researchers, Fisheries Statistics Data Capture until 2016 (10 years), and from other institutions the data can be accounted for
    - Will be considered to add economic indicators

The next meeting was held on April 18, 2019. **Some results from 18 April 2019 meeting**:

1. Operational objective agreements including the determination of the spawning potential ratio (SPR) reference point is 15% and the spawning potential ratio (SPR) of the crab increases to 20% in the WPPNRI 712 within a period of 5 (five) years.

2. Improving the crab fishery stock above the limit reference biomass (Blimit) used is the JTB number based on KepMen No. 50/2017, with the standard API, Bubu Lipat. (including evaluation of the movement of the CPUE trend) / Improving the crab fishery stock in the target reference biomass (Btarget) within a period of 5 (five) years. For determining the number Blimit will see and will be discussed further by looking at the data that will be available, maintaining crab fishing at the WPPNRI 712 at the JTB level of 18,806 tons/year (KepMen KP No. 50 2017).

3. Maintaining a maximum export production volume on average for the past five years.

4. Maintain the economic value and production value from existing industries
    - Will be considered to add economic indicators (see data development)
    - Benchmark data used until December 2018
    - Consideration of increasing the reference point limit with the target reference point within 5 years is taken one of them due to the existence of arad fishing equipment operating
    - CPUE data will be taken from APRI data
    - BKIPM data can be broken down by Province

Note from 9 May 2019 Harvest Strategy Meeting:

Background:
There was the need for a follow-up meeting to discuss more about the existing crab fishery data so that it can support the harvest strategy document preparation, the Ministry of Maritime Affairs and Fisheries in collaboration with the Indonesia BSC Association and supported by the BSC fisheries partners plan to carry out the fifth meeting.

Objective
• Formulate monitoring strategies to collect relevant data to assess fisheries performance
• Discuss process preparation for conducting fisheries performance assessments

Output
• Data on crab fisheries to support the preparation of harvest strategy documents
• Monitoring strategies to assess fisheries performance

Venue:
• Day/Date: Thursday, May 9, 2019
• Time: 08: 30-16: 00
• Place: Fave Hotel Bogor
• Address: Jl. Cidangiang No.1, Tegallega, Bogor Tengah, Kota Bogor, West Java 16129

Results of Discussion

The follow up of blue swimming crab data consolidation at the FMA 712 was attended by around 38 people consisting of Expert Staff of the Minister of Maritime Affairs and Fisheries in the Field of Ecology and Marine Resources, Head of Utilization Section, Inland Sea, Territorial and Aquatic Islands Governance, researcher of fisheries research centre, Marine and Fisheries Human Resources Research Centre (BRSDM KP), Bogor Agricultural Institute, Diponegoro University, representative of the Fish Quarantine and Quality Control (BKIPM), Statistical Data Centre, and Information Ministry of Maritime Affairs and Fisheries, Indonesian BSC Association (APRI), Sustainable Fisheries Partnership (SFP), Marine Stewardship Council (MSC), Environmental Defense Fund (EDF) and Starling Resources.

The fifth meeting of the HS blue swimming crab was opened by the Expert Staff of the Minister of Marine and Fisheries in the Field of Marine Ecology and Resources, Dr. Aryo Hanggono who conveyed several things including: Sustainable fishing has been discussed for a long time and should be per species. In sustainable fisheries there should be scientific regulate, namely data scientific, scientific observer and scientific enumerator. Therefore, hopefully today we can jointly validate the data collected from several institutions.

Opening and Welcome Remarks:
Remarks by the Inland Sea, Territorial, and Islands Watershed Sub-Directorate; Dr. Besweni:
This meeting is the final stage in data validation, operational objectives, and about how monitoring and evaluation of the crab fishery utilization strategy. We have agreed to have a secretariat so that data can be collected at the secretariat, if the data is confidential it cannot be shared apart from this forum and all activities are expected not to interfere with the duties of other units.

Moderator: Dr. Az Bas Taurusman
Learning from snapper and grouper fisheries is a number of things that we agree on, including data analysis and from there can decide performance indicators, and operational objectives.

Presentation from APR Executive Director; Dr. Hawis Madduppa
The APRI collection data consists of blue swimming crab biological data from enumerators, data tracking system vessels, landing data and as well as export production data. SPR data shows that in the Madura area it is continuous and in accordance with international standards with a limit of 20% and a target of 30%. This can be used as a basis for revising the previous limit and SPR target agreement of 15% and the target of 20%. Especially for CPUE, in the months of February-July in some regions are at their peaks. HS control is actually a joint agreement on the HS team considering that our data is sufficient so that interventions such as what we will do can be determined and what management inputs are right. In general, indeed in the WPPNRI 712 management input must be done. The CPUE status displayed is from the Pamekasan, Gresik, Pati and Betahwalang areas using folding traps.

Meeting Agreement:

1. Current status of SPR (SPR) in FMA 712 is 20% with yellow to red status.

2. The agreed operational objectives are as follows:
    a. The potential spawning ratio of the blue swimming crab increased to 30% in the FMA 712 within a period of 5 (five) years, at the reference point the limit was 20%.
    b. Repairing the blue swimming crab fishery stock above the limit reference biomass (B_{limit}) measured according to MSY determined by the Government

3) The performance indicators that will be used in the strategy of utilizing the crab fisheries are:

a. Spawning potential ratio (SPR)
b. National production data and health certificate (HC) based export data

4) There are several things that will be discussed in more detail regarding the monitoring strategy:

c. Data benchmark used until December 2018
d. Monitoring will be carried out regarding the SPR indicator and SOP will be arranged for monitoring that can be used together
e. For the purpose of point 2b, monitoring of national production and export of health certificate (HC) based at the beginning of each year is carried out. The health certificate (HC) based export data is assumed that 90% of the blue swimming crab catch is exported and 70% comes from FMA 712 waters
f. For the purpose of item 2b, the estimation of biomass is calculated by reference to the MSY value multiplied by two (according to the National Commission fisheries stock guidelines).

5) The next meeting will be held after Eid Mubarak, which is to discuss the implications of the utilization strategy.