

CHAPTER I. INTRODUCTION

A. Research Background

Indonesia's marine and fishery resources have considerable fish potential (6,520,100 tons / year), as stated in Decree of the Minister of Marine Affairs and Fisheries number KEP.45 / MEN / 2011 regarding the potential of Indonesian marine resources. Indonesian marine produces the largest fishery in Asean waters and even Asia. Indonesia fishery products are quite anticipated arrival with a lot of quantity and good quality. It shows the prospect of fishery and marine Indonesia is considered very bright and become one of the strategic economic activities (Adisanjaya, 2010).

The fishery sector has a strategic role in national development. The sector has a very promising fishery potential in the fishery products processing business that is also a requirement of the people of Indonesia. The fishery sector absorbs a lot of manpower, ranging from fishing, cultivation, processing, distribution and trading. Therefore, the development of the fishery sector cannot be ignored by the Indonesian government (Triarso, 2012).

Management of fishery resources is an integrated process ranging from information gathering, analysis, planning, consultation, decision making, resource allocation and implementation, in order to ensure continuity of productivity and achievement of management objectives (FAO, 1997). According Widodo and Nurhakim (2002) argued that in general, the management of fishery resources have the main objectives to:

- 1) Maintain production sustainability, especially through various regulations and enhancement actions.
- 2) Improve the economic and social welfare of the fishermen.
- 3) Supply industrial needs that utilize the production.

The management of fishery resources requires a good plan and supported by all of those involved and interested, ie the stakeholders. By involving all stakeholders, their obligations and responsibilities towards long-term utilization and management of fish resources and ecosystem can be improved (Widodo, 2006). Sustainable fisheries management is key to restoring and maintaining

ecological function and benefits to people, but it requires accurate information about patterns of resource use, particularly fishing pressure (Delaney et al, 2017).

The potential of a very large fishery can provide maximum benefits in a sustainable manner for the community, if managed properly and responsibly. It has been mandated in the Law of the Republic of Indonesia (UU RI) Number 45 of 2009 Article 6 paragraph 1 which confirms that fisheries management is aimed at achieving optimum and sustainable benefits, and ensuring the sustainability of fish resources. Until now, most of the fishery activities occurring in Indonesia have not demonstrated optimal performance, sustainability, and ensuring the sustainability of fish resources as mandated in RI Law no. 45 of the year 2009. As an illustration of the catch fisheries some examples are: 1) still rampant IUU fishing activities; 2) overfishing symptoms resulting from the utilization of fish resources that are open access; 3) there is still the use of destructive fishing gear; and 4) a weak and ineffective system of fish resource utilization (DKP, 2014).

Development of marine fisheries must be done by all relevant stakeholders. The basic principles of development by maintaining the state of marine and fishery resources to be managed in a measurable, accurate, efficient, effective, and accountable, with the ultimate goal to improve the welfare of fishermen in a sustainable (Candy KP, 2015). Management of marine and fishery resources has a role as a regulator of balance in integrating between stakeholders. Maintain the availability of fishery resources to support sustainable fish resources.

B. Research Problem

Sustainable fisheries are efforts to integrate social, economic and ecological goals. Sustainable fisheries developed because of anxiety increasingly deteriorated the ability of the aquatic environment to support the availability of fish resources. Sustainable fisheries can catch fish resources at a sustainable level, so that fish populations and production do not decline and are available from time to time (DKP, 2014).

Fishery resources are often put forward as common pool resources that are in a container or ecosystem where fishing is done jointly. As a common container, these resources have the nature of interconnectivity ie fish resources are interconnected between a component such as between fish species and their

environment. Then the nature of the indivisibility of fish resources have a certain territorial waters. And finally the nature of subtraction of fish resources when taken by a certain person will affect the existence and availability of fish for others at other times (Nikijuluw, 2005).

One of the coastal areas of Padang City is located in Pasie Nan Tigo Village, Padang City, Pasir Jambak. This region generally has a search-edged community as fishermen. According Kusnadi (2006) said that the coastal community or most of the fishermen is the most utilize the potential of marine resources for survival in meeting their needs. The fishermen of Pasir Jambak are very dependent on the catch of fish obtained every day.

The dependence of fishermen on the ocean produce makes the fish catch by fishermen can experience overfishing. This can be seen based on fishing gear dominant used by fishermen. The reduction in a fish population due to the dominant use of this fishing gear is interesting to observe regarding the composition of the catch and also the rate of its capture. So that further information can be obtained whether the catch is still in accordance with the main target and also regarding capture productivity by calculating the rate of Catch per Unit Effort (CPUE). If not done the management of the use of fishing equipment wisely can cause the availability of fish in the sea to be reduced. Not yet known how many fish resources that exist in the sea to be catch by fishermen. The availability of fishery resources in this area has not been accurately and accountably measured. So this location is not known condition of fishery resources available. Due to the limitations of data composition on the amount of catches and the average catch per fishing effort. Currently, the Department of Marine and Fisheries collect catch and viewed data sporadically, typically twice a month. These data provide a general individuals of production but do not show CPUE and therefore do not a standardized way of monitoring catches. As already known, the current empowerment program provides many physical asset assistance in the form of fishing gear for fishermen. Provision of fishing gear will only accelerate the population decline in fish when not adapted to its resources.

This becomes an issue that can be done assessment to find out to what extent the condition of fishery resources with the use of standardized fishing gear.

To answer these conditions, it is necessary to collect data of CPUE fisher group. This CPUE data collection is based on the catch of fishermen per effort. Through collecting the catch data will produce baseline data and average fish catch amount. The data of fisherman catch is used to know the condition of fishery resources whether in good or bad condition. The questions that the research is trying to answer is how to identify the composition of fish catches to get baseline data on fish production quantities? Then, how to make a simple method of collecting fisherman data from fisher groups that can be used to calculate Catch Per Unit Effort (CPUE)?

To answer this research question, we will do research with title **“TOWARDS DESIGNING AND IMPLEMENTING A SIMPLE CPUE DATA METHODOLOGY FOR FISHER GROUP IN PADANG, WEST SUMATRA”**.

C. Research Objective

Based on the research problems, the purpose of this study are as follows:

1. Identify amount of fish catch to obtain baseline data on fish production quantity
2. Creating a simple method of collecting fisherman data from fisher groups that can be used to calculate CPUE

D. Significant of Research

This research is expected to be useful for marine and fishery development to obtain baseline data of catch composition as well as accurate and real fishing fish catch data from fishing activity in research area. Then yield a method of collecting data of CPUE for fisherman group that role to know condition of fishery resources to be adjusted with fishing gear used. In addition, the results of this study are also expected to be a study material or reference for further research.