

Conference Paper

Indonesian Small Pelagic Resource Accounting

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Abstract

Fish is one of natural resources, which is important for food security. Small pelagic fish is one of the sources of food, the most widely consumed by people of Indonesia, given the existence of a fairly abundant species, and are found in almost entire territorial waters of Indonesia, and also has a relatively affordable price. Management of pelagic fishery in the waters of Indonesia, thus becomes important, especially to maintain the sustainable industry. Optimal and sustainable fisheries industry can only be achieved with proper planning through the implementation of appropriate management instruments as well. Fisheries resources accounting is one of the planning instruments, which should be used as a main reference of Fisheries Management Plan. In general, fisheries accounting provide insights for policy makers on how the flow of the stocks of fish and its relation to changes in the dynamic of natural and economic activity of fishing. Small pelagic resource accounting is one of the mandates of agenda 21 UNCED recommendation, as formulated in the System of Integrated Environmental and Economic Accounting (SEEA). Besides, this is also a decree of Indonesian Law No. 32/2009 regarding the Management and Environmental protection. The paper discusses the fisheries account, both physical and monetary, for small pelagic fish. By using resource accounting, we can understand the dynamics of the availability of stocks of small pelagic fisheries in Indonesia for the sake of food security. The methods in use is the standard bio-economic modelling, using fox algorithm for parameter estimation, and resource accounting method of the System of National Accounts of FAO [1], adapted to the data existing condition. The results of the analysis, include measurement of standing stocks (physical assets account), fishable biomass, depletion, as well as monetary account. Paper also provides suggestion for management, as well as policy recommendation.

Keywords: Small pelagic, Resource Accounting, Physical assets account, monetary account, Fisheries Management Plan, Bio-economic modeling, Policy recommendation.

1. Introduction

The extraction of fish resources for the purpose of food security, commercial, and economic growth of a country, has reached an extraordinary level. Massive use of

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