

The Contribution of The Overall Performance of The Fisheries Sub-Sector to The Gross Nearby Home Product and The Welfare of Fishermen in The Riau Islands Province

Widiyarini¹, Ahmad Rodoni², Sutrisno³
{widiya2513@gmail.com¹, ahmad.rodoni@uinjkt.ac.id², sutrisno.sutrisno1952@gmail.com³}

Student of Doctoral Program in Economics, Borobudur University, Jakarta / Lectuter at Indra Prasta University, Jakarta¹. Lecturer at State Islamic University, Jakarta², Lecturer at Borobudur University, Jakarta³

Abstract. Fisheries are one of the agricultural sectors which have a number one contribution to the economic device of the Riau Islands Province, if these resources are used optimally. The GRDP of the Fisheries Sub-region of Riau Islands Province is one of the signs to look the overall performance of the fisheries sub-zone within the Riau Islands Province. inside the interim, the fisherman 's change rate is one of the signs to see the volume of welfare of fishery farmers. The motive of this examine is to locate and look at the impact of the performance of the fisheries sub-area within the Riau Islands Province at the GRDP and the exchange fee of fishermen. The studies approach uses panel facts regression, pass segment 7 towns/districts and time collection for six years from 2015 to 2020 within the Riau Islands Province. Regression testing indicates that the fishery sub-zone overall performance has a huge and terrific impact on GRDP, and GRDP has a sizeable and tremendous effect on fishermen's welfare.

Keywords: Crime fisheries; GRDP; fishermen's welfare

1 Introduction

Fisheries are one of the agricultural sectors that have a primary contribution to the financial system of the Riau Islands Province, if the ones resources are used optimally. In general, there are forms of fisheries, specifically land and sea. For the Riau Islands Province, the capability for marine fisheries may be very dominant, supported thru most of the coastal areas. usage of marine belongings can emerge as a round go with the flow of the monetary system simply so it can enhance network welfare in a sustainable manner. in addition, the output generated from the fisheries sub-location is huge sufficient to satisfy the dietary and protein wishes of the network [1].

Riau Islands Province which has a sea region of 241,215.three km² (ninety six.79%) has a completely massive capability for developing aquaculture (aquaculture), specially marine aquaculture (mariculture). it is predicted that there are about 455,779.nine ha of marine areas that have the capability for mariculture development, which incorporates fifty 4,672.1 ha for coastal marine way of life and 401,107.9 ha for offshore marine manner of lifestyles, which is probably spread in almost every place of the world. district/city. Lingga Regency has a immoderate ability

for developing mariculture, which reaches 19,054 ha for coastal marine culture and spherical 226,538 ha for offshore marine way of life. With a land vicinity of one,059,511.0 ha, Riau Islands Province has the ability for growing brackish and freshwater

Aquaculture that is estimated at 2,063 ha and 819 ha, respectively, and spreads in almost all regencies/towns. The scenario of the fishery belongings owned is the principal capital, but does not continually make an extraordinary contribution to the fulfillment of monetary increase inside the Riau Islands Province, it requires law and assist from all stakeholders and sustainable manipulate a good way to inspire prolonged performance of the fisheries quarter [2]

The Gross regional domestic product of the Fisheries Sub-place at consistent expenses (ADHK 2010) within the Riau Islands Province is one of the proxy symptoms to appearance the general performance of the fisheries sub-sector in the Riau Islands Province. Gross regional domestic product of the Fisheries Sub-zone is the quantity of added cost for items and services produced by means of the fisheries sub-zone. The economic boom of the fishery sub-sector is a change within the Gross regional domestic product of the fishery sub-vicinity from one length to the following. The Gross regional domestic product of the fisheries sub-region is handiest primarily based absolutely at the number one sector which incorporates seize fisheries and aquaculture [3]

Financial development is largely aimed at enhancing people's welfare. Fishery Subsector Farmer's trade price (NTP.Pi) is one of the proxy indicators to look the welfare level of fishery zone farmers in a place in a positive year and month compared to the base year. NTP.Pi may be used as a measuring tool for the exchangeability of goods produced by means of farmers in the fishery area for goods/services needed for family intake and manufacturing wishes. NTP.Pi is the ratio between the charge index obtained (It) and the rate index paid by fishery farmers (Ib), that's expressed as a percent. NTP.Pi more than 100 way that fishery area farmers have higher profits than their fees, or experience a surplus.

NTP.Pi less than 100 approach that the expenditure of fishery farmers for household consumption and production charges is better than the profits from their commercial enterprise. whilst NTP.Pi is equal to one hundred, meaning that profits from operations is similar to expenditure for household intake charges and manufacturing wishes [4].

2 Literature Evaluates

Fishery

Fisheries are all activities associated with fish, such as producing fish, either thru catching (capture fisheries) or cultivation and or processing them to meet human desires for meals as a delivery of protein and non-meals (tourism, decorative fish and others). The scope of fishery enterprise activities does not simplest produce fish (on farm), however moreover consists of off farm sports, which includes procurement of manufacturing centers and infrastructure, processing, marketing and marketing, capital, research and improvement, rules, and exceptional supporting commercial agency elements. forms of fishery business are divided into three, among others: business thru catching, enterprise thru cultivation and fish processing business [3].

Fisheries are activities of exploiting natural assets from the ocean. The definition of fishery he expressed is restrained to marine fisheries, due to the fact fisheries are certainly all derived from searching sports activities which have to be outstanding from farming sports activities together with cultivation [5]. Fisheries is a system consisting of three additives, particularly aquatic biota, biota habitat and human beings as customers of these resources. of those additives will have an effect on the overall performance of the fishery [6].

Fisheries are all business catching fish cultivation and control sports to advertising, even as fishery resources are all animals and plant life that live in waters (every on land and sea), consequently fisheries can be excellent into land fisheries and marine fisheries. Inland fisheries are all fishing companies that aren't finished within the tremendous sea collectively with freshwater fisheries, ponds, ponds and so on. specifically for fisheries inside the sea, marine biologists distinguish marine fisheries into businesses, particularly pelagic fish (fish that live at the floor) and demersal fish (fish that stay at the seabed). The pelagic fish companies encompass skipjack, tuna, kite, mackerel, seagrass and others. even as the styles of demersal fish including shrimp, crab, pink snapper and others [2]

Gross Regional Domestic Product

Gross nearby domestic Product (GRDP) is one of the macro indicators that could show regional monetary situations each 12 months. GRDP is statistical records that summarizes the acquisition of brought cost from all financial activities in a area. GRDP is calculated on the basis of contemporary costs (ADHB) and on the basis of consistent prices (ADHK), that's calculated based on the base 12 months [7] GRDP can be interpreted into three meanings, namely:

Production method, GRDP is the total price of final items and offerings produced by way of various manufacturing units in a location/area at a certain time, normally a yr.

$GRDP = NTB = (Output - Intermediate\ fee) = [(Production \times Price) - Intermediate\ Cost]$
income technique GRDP is the quantity of remuneration received by manufacturing elements that participate within the production manner in a vicinity/vicinity in a positive time frame (a year)

$GRDP = wage\ salary + business\ Surplus + net\ oblique\ Tax + Depreciation$

Expenditure approach, GRDP is the sum of all fees for household intake including non-profit institutions serving families, authorities' intake, gross domestic fixed capital formation, adjustments in stock (inventory) and net exports in a place [8]

Farmer's Change Price (NTP)

Farmer's trade fee (NTP) is used as an indicator to measure the shopping power or terms of change (phrases of alternate) of agricultural merchandise produced for items/services consumed at the side of the fees of the production technique with the resource of farmers. In different words, NTP is a degree of the ability to alternate agricultural gadgets (products) produced thru farmers for goods/offerings needed for own family intake and the need to produce agricultural products. that is contemplated within the calculation of FTT received from the assessment or ratio among the fee Index obtained by means of manner of Farmers (It) and the rate Index Paid via Farmers (Ib) [9]

This Fisherman's trade rate is likewise called the Subsistence phrases of exchange. in keeping with Basuki, et al (2001), NTN is the ratio of overall income to general household expenditure of fishermen over a certain time frame. In this situation, the earnings in question is gross earnings or may be called fisherman family earnings [10]

The primary assumption in using the ideas of NTN and INTN is that all capture fisheries enterprise outcomes are exchanged or traded with non-capture fisheries area products. Captured non-fishery goods acquired from this alternate are used for fishing commercial enterprise functions, both for the production manner (catching) and for intake via fishermen's households, due to the fact the to be had statistics does no longer allow for keeping apart non-fishing items that are really exchanged for meals [11]

3 Research Methods

The scope of studies

The vicinity or object of studies information is done inside the Riau Islands Province by means of method of making direct observations in numerous districts and cities along with Bintan district, Karimun district, Anambas archipelago district, Lingga district, Natuna district, Batam town and Tanjung Pinang city which may be locations in which the capture fisheries sector is positioned. and aquaculture is developing unexpectedly.

Population And sample studies

on this take a look at, what is supposed via populace is all records on studies variables from 2002 due to the fact the formation of the Riau Islands Province until 2020 which relates to all variables to be studied. whilst the pattern used on this have a take a look at is research variable information from 2015 to 2020 the use of panel statistics related to home funding, fishery commercial organization credit score, fishery exports, the number of fishing fleets. The sample used in this look at is skip phase statistics of seven (seven) cities and regencies and time collection statistics for 6 (six) years of studies from 2015 to 2020, simply so the sample of this study amounted to 42 samples.

Studies layout

The studies format used is explanatory research evaluation or speculation studies via clarification. Explanatory studies is an analytical device to provide an explanation for the causal courting among variables with the aid of checking out the speculation. The explanatory format is to explain a generalization or give an explanation for the connection of 1 variable to every other, consequently explanatory studies uses hypothesis attempting out using inferential data (for speculation attempting out) [12]

4 Results and Discussion

Hypothesis Test Results

The Effect of Fishery Sub-Sector Performance on Gross Regional Domestic Product in Riau Islands Province.

Table 1. Random Effect Estimation Test Results

Variable Dependend : Ln_GDRP				
Variable Independen	Coefficient	Std. Error	t-Sra fistic	Sig.
C	3.615372	0.589767	6.130163	0.0000
Ln FISHERY	0.065645	0.065366	14.77207	0.0000
R-Squared	0.5364S2			
Adjusted R-squared	0.832394			

Source: Data processed Eviews 10

Primarily based at the effects from table 1, it could be concluded that the impact of the overall performance of the fishery sub-sector at the gross local home product statistically shows substantial results at the opportunity value of the overall performance of the fishery sub-region is smaller than ($00000 < 0.05$), so it can be concluded that it's far concluded that

the overall performance variable of the fisheries sub-quarter has a substantial and tremendous effect at the gross regional home product.

The significance of the impact of the overall performance of the fisheries sub-zone at the gross regional home product is indicated via the fee of R-Squared = 0.836482, meaning that the price of the effect of the general overall performance of the fisheries sub-area on the gross local homemade of the Riau Islands Province is **83.64 percentage**, the remaining 16.36 percent is motivated through factors -different factors outdoor the version below study.

The Effect of Gross Regional Domestic Product on Fishermen’s Exchange Rates in Riau Islands Province.

Table 2. Fixed Effect Estimation Test Results

Variable Dependen : Ln NTN				
Variable Independen	Coefficient	Std. Error	I-Statsdc	Sig.
C	530S717	0.553543	9.590429	0.0000
Ln GDRP	1.075211	0.Q5S252	1S.457S7	0.0000
R-Squared	0.864W)2			
Adjusted R-squaied	0.S56590			

Source: Data processed Eviews 10

Based totally on the effects from Table 2, it can be concluded that the effect of Gross local domestic Product on Fishermen's trade quotes statistically shows sizeable effects at the opportunity price of Gross nearby home Product is smaller = than (**0.0000** < 0.05), it may be concluded that the Gross local home Product variable has a huge and positive effect at the Fisherman's trade price in the Riau Islands Province

The significance of the influence of the Gross regional domestic Product on the Fishermen's trade fee (NTN) is indicated with the aid of the fee of R-Squared = **0.86402**, that means that the significance of the have an impact on of the Gross nearby home Product at the Fishermen's exchange fee (NTN) inside the Riau Islands Province is **86.40 percentage**, the closing 13.60 percent prompted with the aid of different elements out of doors the version studied.

4 Conclusion

The overall performance of the fisheries sub-sector, that is contributed via a conducive home funding climate, the success of the humans’ enterprise credit program inside the fishery quarter, the widespread contribution of fisheries exports and the number of very ok and current fishing fleets, have an impact at the excessive wide variety of gross nearby domestic products within the Riau Islands province. Gross local domestic product on account of the overall performance of the fisheries sub-zone, which comes from capture fisheries production and aquaculture manufacturing, has been able to be redistributed by means of the provincial authorities through providing help to fishermen spread across 7 (seven) districts/towns to growth the welfare of fishermen as indicated by the excessive trade price of farmers inside the province of Riau Islands.

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