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Analysis of Sea Transportation Development to Support National Connectivity and Economic Growth of Papua Province

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Abstract

Marine transportation has an important role to support the national connectivity and economic growth, especially in Papua Province. Characteristics of geography on land and sea and an insufficiency of existing infrastructure in Papua encourage its development. An effort to improve Papua's connectivity and economic growth is believed to be able to overcome the complicated problems that exist today The aim of this study was to analyze the development of marine transportation in support of national connectivity and economic growth in Papua province. The contributions of marine transportation to the economy and the growth rate of marine transportation were analyzed using approaches of contribution sector and Typology Klassen, respectively. The problems and an overview of the steps in development of marine transportation in Papua and national were analyzed qualitatively using Miles and Huberman's method (1992). Efforts to increase the national transport connectivity were analyzed descriptively based on supporting documents. The results show thatthere has been an increase in the contribution of sub marine transport, transportation and communications in 2007-2013; The growth rate of marine transportation increased in the period 2007-2012, then was corrected in 2013; the transport sector grows rapidly, however it is very difficult to optimalyzed related to several factors, both in the central and local government, infrastructure, local human resources, local community institutions, economic analysis up to external problems; the improvement of national transport connectivity can be realized by implementing strategies stipulated in national development planning documents concerning Sislognas, Sistranas, RPJMN /RTRWN, ICT and Papua's planning documents.

Keywords: Marine, Transportation, National Connectivity, Economic Growth

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1. Introduction

Regional economic development is a process in which local governments and communities manage existing resources and form a pattern of partnership between local governments and the private sector to create new jobs and stimulate the development of economic activity (growth) in the region (Arsyad, 2002). The principal issues in regional development lies in the emphasis on development policies that are based on the peculiarities of the region concerned (endogenous development) by using the

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potential of physical resources locally. A good planning and appropriate policies will affect the success of the economic development of the area.

The success of economic development is indicated by three basic values, namely the development of the community's ability to meet basic needs, to improve self-esteem, and to improve the ability of people to choose (Todaro and Michael 2003). The transport sector is one among eight sectors which has contributed to the formation of gross domestic product (GDP) on national and regional gross domestic product (GDP) on districts/cities andprovince levels. Transport plays a major role as a means of meeting the basic needs of society, to accommodate economic and social activities of the community as well as to facilitate the system of production and investment which in turn, has a positive impact on the economy.

Based on their research result (2006), PKSPL IPB estimates that the economic potential of sea transportation is about 14.78 billion US dollars per year. While it contributes to the provision of labor services. In this sense, its contribution also has an enormous potential. The capacity share of national sea transport to transport overseas reached 345 million tons or only 5.6%, while the share of the national sea transport for transport in the country reached 170 million tons or 56.4% in in 2001. In the same year, there were 1,762 shipping companies. Meanwhile, according to *Papua In Figures* (2014) the contribution of transportation and telecommunication sectors in Papuan economy reached only 2, 272.60 billions rupiah in 2013, or at 9.23% of total Papua's GDP which is at 24,616.65 billions rupiah or an 9% increase from 2012.

The growth of marine transportation directly reflects economic growth so that the transport sector has an important and strategic roles, namely contributing value added in the formation of gross domestic product, the double impact on the growth of other sectors and the ability to reduce the rate of inflation over the smooth distribution of goods and services to the entire corners of the country. Accordingly Kusumastanto (2003) proposes that Indonesia develops sea transport policies in favor of the interests of the national shipping fleet so that the sector is expected to play an important role in the world of international and domestic trade. This study aims to analyze the development of marine transportation to support national connectivity and economic growth in the province of Papua.

2. Method

The research was conducted in June 2015 in the province of Papua by analyzing documents on the role of the transport sector to the economic growth of the region. The data used in this research is secondary data in the form of statistical data on transport and transport of Papua and data of development of economic growth in the province of Papua. This study uses data analyses as follows:

1. The sea transport sector's contribution to the economy of Papua Province was analyzed using the analysis Sector Contribution (Widodo and Suseno 1990).

2. The rate of growth of marine transport sector in Papua province was analyzed using the analysis TypologiKlassen formula:

Quadrant I	Quadrant II
Sectors advanced and rapidly growing si> s, skis >sk	Advanced sector but stressed the < s, skis >sk
Quadrant III	**Quadrant IV**
Potential or sector can still thrive si> s, skiing <sk	Relatively underdeveloped sector si< s, skiing <sk
Description: Sector r i; The pace of growth in the transport sector, r GDP; GDP growth rate in the province of Papua	

TABLE 1

Year	Sub-Sector Marine Transport (IDR)	Transportation and Communication Sector	GDP (IDR)	Contributions Sub Sector (%)	Sector Contribution (%)
2007	140,965.55	1,170,527.97	19,200,297.42	0.73	6.10
2008	154,057.25	1,344,367.05	18,931,444.49	0.81	7.10
2009	170,908.49	1,536,705.18	23,138,444.49	0.74	6.64
2010	186,396.13	1,747,416.21	22,400,088.73	0.83	7.80
2011	206,572.07	1,910,113.17	21,207,818.39	0.97	9.01
2012	221,487.48	2,092,470.62	21,436,223.73	1.03	9.76
2013	287,839	2,313,647.43	17,982,784.	1.60	12.87

TABLE 2: Contribution of Communications and Transport Sector to the GDP of Papua Province, Year 2007 -2013 Upper Constant Prices (in billion Rp).

3. The problems found in the sea transport sector in Papua and national scale were analyzed with qualitative data analysis (Miles and Huberman 1992) using procedures of data reduction, data presentation, and drawing conclusions/verification.

4. The description of the steps of the development of marine transport sector in Papua province was analyzed with qualitative data analyses (Miles and Huberman 1992) using procedures of data reduction, data presentation, and drawing conclusions/verification.

5. Efforts to improve the national transport connectivity were analyzed descriptively based on supporting documents as well as national planning documents in the field of freight transportation.

3. Results

3.1. Contribution of Maritime Transport Sector to The Economy of Papua Province

Analyses of GDP of Papua Province in 2007-2013 show the increase of the sea transport's contribution to in the national economy as well as the province of Papua, which is presented in table 2.

Transportation Sub-Sector	Year							Average
	2007	2008	2009	2010	2011	2012	2013	
Transport Highways	1,19	1,35	1,22	1,39	1,59	1,69	1,70	1,45
Sea Transport	0,73	0,81	0,74	0,83	0,97	1,03	1,10	0,90
River transport	0,12	0,13	0,11	0,12	0,14	0,14	0,13	0,13
Air Transport	1,13	1,26	1,16	1,35	1,58	1,73	1,61	1,40
Transport Supporting services	0,26	0,29	0,26	0,30	0,35	0,39	0,25	0,30
Communication	2,67	3,26	3,14	3,81	4,37	4,77	4,72	3,82
Amount	6,10	7,10	6,64	7,80	9,04	9,76	9,51	7,99

TABLE 3: The growth rate of Transportation and Communications Sector Sub Papua Province, Year 2007-2013 Over 2000 Constant Prices.

Quadrant I	Quadrant II
Advanced sectors and growing rapidly (developed sector) si> s and ski >sk a. Trade, Hotel and Restaurant b . Transportation and Communications Sector c . Sector Offices; d) Construction Sector	Advanced sectors but depressed (stagnant sector)si< s and ski >sk a. Agriculture sector
Quadrant III	**Quadrant IV**
Potential or sector can still thrive (Developing sector) si> s and ski<sk a. Mining and Quarrying b. Electricity and Water sector c. Financial sector, rental and services of the Company	Relatively underdeveloped sector (underdeveloped sector) si< s and ski<sk a. Manufacturing Sector

TABLE 4: Classification of Sectors Against the GDP of Papua and West Papua. Year 2007-2013 without Mines based Typology Klassen.

3.2. The growth rate of maritime transport sector of papua province

The local government has not maximize the role of sea transport sector as an economic powerhouse in Papua province. This can be seen from the data that has fluctuated and was under pressure during the last few years (table 3).

From Klassen Typology analysis result, we identify that the transport and communications sector included in the first category is the sector which advance and grow exponentially. The sector classification of each area of Papua Province is presented in detail in Table T4.

4. Discussion

4.1. The contribution of maritime transport sector to the economy of papua province

The transport sector is a sector that has an enormous potential for future development and utilization. Information regarding the size of the transport and communications sector contribution to the GDP of Papua Province in 2007-2013 based on constant prices (table 2) shows that there is an increasing role of sea transport sector in the national economy as well as in the province of Papua. This was due to the economic growth in province of Papua, as well as the growing economic actors in Papua.

4.2. The Growth Rate of Maritime Transport Sector in Papua Province

The growth rate of marine transport sector in Papua province fluctuated during the period of 2007-2013. Based on the analysis ofKlassen Typology, the transport and communications sector, is included in the Category I, which meansthe sector advances and grow exponentially. The high economic growth and the strengthening of the economy in Papua province is the major cause, in addition to the better distribution of economic benefits that increase the level of goods and services comsumption.

The result of Klassen Typology analysis can be used as a planning strategy for the regional economic development in the future. This can be done in three phases, namely economic development priorities for the short term, medium term and long term. For the short term (1-2 years), local governments pursue economic sectors that fall into the category of highest potential, that is the prime sector that can ncouragethe growth even faster. For the medium-term (5-10 years), the local governments seek sectors which are currently developing into a prime sector to increase its contribution to the regional economy, and growing sectors that have come from the underdeveloped sectors should be pursued into the prime sector in the long term of 25 years (Widodo 2006).

4.3. Problems Found in Maritime Transport Sector in Papua and at The National Scale

Previous analyzes indicate that even though the transport sector falls into the category I, namely the advanced and rapidly growing sector, in reality it is very difficult to maximize it due internal and external factors.

The Ministry of Transportation of the Republic of Indonesia (2011) divides the national marine transportation sector problems into three major strata namely: a) the implementation of the cabotage principle; b) the implementation of national single window (NSW); c) implementation of pilot sea transport.

Shaping Posture of connectivity component of the National and Local				
National Logistics System (Sislognas)	National Transportation System (SISTRANAS)	Regional Development (RPJMN and RTRWN)	Information, Communication and Technology (ICT)	Vision and Mission of the Governor province of Papua
1. Determination of key commodities 2. Strengthening the logistics services 3. Network Infrastructure 4. Capacity building 5. Improved ICT 6. Harmonization of regulations 7. Keep the national logistics board	1. Safety of transport 2. Cultivation of transport 3. The transport network 4. Improvement of Human Resources and Science and Technology 5. Maintenance of environmental quality 6. Provision of development funds 7. To increase the state administration	1. Increased local economy 2. Capacity building 3. Development of infrastructure 4. Institutional capacity building 5. Improved access to working capital 6. Improvement of basic social facilities	1. Migration towards convergence 2. Equitable access and service 3. The development of broadband networks 4. Improved network security and information systems 5. Integration of infrastructureap-plications and national data 6. Improved e - Uterasi, the independency of the domestic ICT industry and ICT human resources ready to use 7. Increased independency of the ICT industry in the country	1.Acceleration connectivity infrastruc-turedevelopment and connectivity between regions and between regions in Papua by promoting the principles of sustainable development 2.Establishment of new growth centers that will automatically push open isolated areas undertaken by districts, to open up areas of the district . 3. Development of the transport network to support the development of fast-growing areas which have the potential and competitive commodities respectively . 4. Improving the range of services and information communication system between regions
Strengthening National Connectivity by integrating and synergize Do Sislognas Plan, SISTRANAS, Regional Development, ICT and RPJMD Papua Province				

TABLE 5

According to the National Development Planning Agency (2012), there are several issues contained in the transport sector nationally and Papua namely: a) the alignments on the sea transport sector is very minimal; b) the lack of availability of facilities and infrastructure as well as supporting infrastructure for sea transport, ports, with a fleet of transport and trucks carrying goods; c) maritime transport is expected to be the driving force in the economic development area of Kalimantan, Sulawesi, Maluku and Papua; d) economic and non-economic potentials of the region have not been identified properly; e) the lack of capacity and quality of sea transportation that connects small islands, outermost, and less developed areas in Papua and Indonesia; f) access to raw materials and export is very low; g) human resources within the tministry of transportation and port operators are very low; h) the human resource development of transport needs to be supported by the government; i) high corruption, monopoly and extortion; l) a comprehensive transportation financing and the support of fiscal and

structural improvements tariffs on sea transport sector is difficult to be realized; m) an overlapping management of ports and sea transport in Papua as well as between the central and regional governments; o) almost the entire institutional unpreparedness in ocean freight in Papua and Jakarta in the face of the global market; p) the safety standard in marine transport systems is still low.

4.4. Measures of Maritime Transport Sector's Development in Papua

The development of marine transport sector will benefit coastal states, islands, and countries like Indonesia. Bappenas (2012) divides the number of activities and strategies in the development of marine transportation, among others: a) the share of national shipping cost; b) a pioneering marine transportation activities; c) a partial development of sea transport; d) a strategy development and service improvement by national sea ports; e) the improvement of shipping safety.

4.5. Analysis and Enhancement to Achieve National Transportation Connectivity

Efforts to develop and increase sea transportation sector nationally should consider the regional and national economy. It also has to strengthen national connectivity. The sea transportation sector is highly dependent on the strength and degree of connectivity of the national economy (intra and inter region) as well as connectivity to the international world market. Improving connectivity consists of five integrated component namely: a) National Logistics System; b) the National Transportation System; c) Regional Development (RPJMN and RTRWN); d) Information, Communication and Technology (ICT); e) and the Vision and Mission of the Governor of Papua Province.

5. Conclusion

The contribution analysis of maritime transportsub-sector to the regional economy of Papua Province demonstrates a very good development, as the transportation and communications sector is in the first category. The transportation and communication sector advances and grows rapidly. However, the sector is facing huge problems in the regional level in Papua and in the national level concerning the lack of infrastructure, local human resources, pull factors, local community institutions and external issues. In order to create a national transport connectivity then, we suggest that all relevant documents prepared by the central government must be followed and translated properly.

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