

The Development Of Indonesia Archipelago Transportation

Karel Albert Ralahalu¹, and M.Yamin Jinca²

¹Head of Board on Archipelago Province Cooperation, in Indonesia

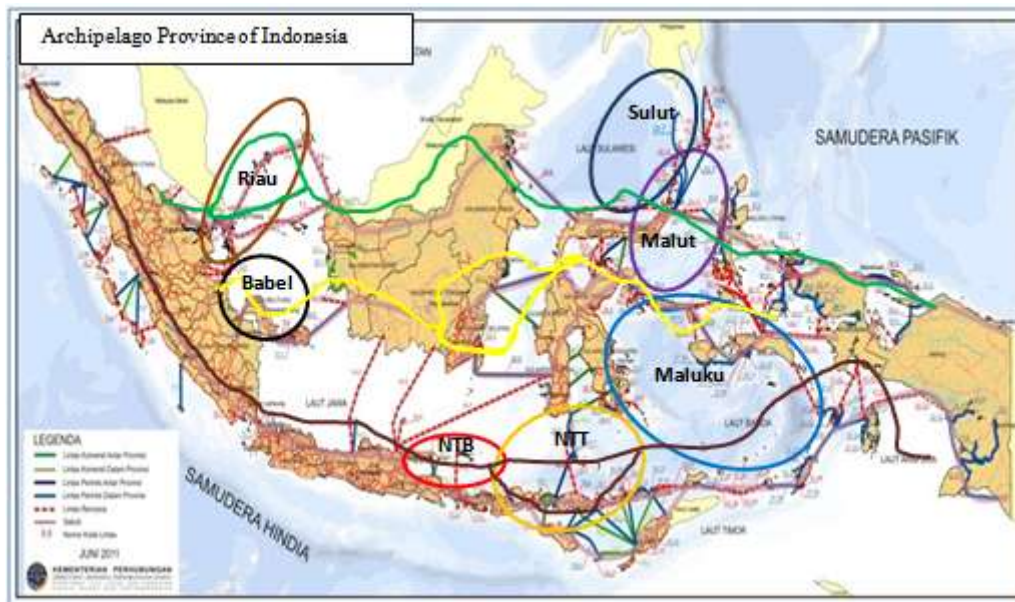
²Professor of Transportation Engineering, Chairman of the Master of Transportation Engineering, Hasanuddin University.

Abstract:- An economic resources in the Regional of Archipelago Province has a commercial value and can support people's lives have not been optimally distributed to evolve as the market area. Availability of sea transport infrastructure is very limited. Some of the area looking for a solution using their own fishing boat or boats that are visually unsuitable used for passenger transportation. Logistic transport network for economic corridor from the main node materialized with support services infrastructure between National Activity Centre (NAC) and Regional Activity Centre (RAC), although the integrated is limited, so it is not efficient network services between Local Activity Centre (LAC) to remote rural areas. Conditions of road transport infrastructure network are low performers, and even some roads have not been connected, and have influenced to the logistics distribution to the district/city, district, rural and remote areas.

Keywords:- Economic resources, infrastructure, Integrated Transport and Connectivity.

I. INTRODUCTION

There are seven provinces in Indonesia Archipelago with thousands of islands that can be grouped as a unit cluster development in the form of island [1]. The seven provinces are Riau Islands and Bangka Belitung (Babel) Province is located in the western part of Indonesia (WPI). Province of North Maluku, Maluku, West Nusa Tenggara (NTB), East Nusa Tenggara (NTT) and North Sulawesi (Sulut) are located in the island province of eastern Indonesia (EPI). But in this description is limited only to observe how the development of transportation in the province of archipelago in Eastern Indonesia.



Transportation is a derived demand, typically do not recognize administrative boundaries, so that can not be severed on the basis of a particular administrative area. Growth in the transport sector is a barometer of economic growth and development of the region directly, and one of the cornerstones of success of national development [2].

The development of the transport sector Gross Regional Domestic Product (GRDP) is affected by economic conditions and population of an area. GRDP as a driver of economic activity and population

movements associated with the needs of passengers and goods, given the conditions and characteristics of the different regions in support of socio-economic activities of the community.

Most of the Archipelago-province deficit of commodities and basic materials, so it must come from outside the province islands with sea transport. The high price varieties, due to an imbalance between load factor and come back makes transport and logistics costs are still relatively high.

II. POTENTIAL MOVEMENT OF TRANSPORTATION

Economic conditions according to the GRDP and GRDP per capita, shows that the province of Riau Islands is the highest and the lowest of North Maluku, as in Table 1. This condition shows the economic disparity between WPI Islands province in the region is relatively high compared to the provincial island in the EPI.

Table 1. Population and GRDP Per Capita by Province [1]

No.	Islands Province	Population (1.000 people)	GRDP (Billion USD.)	GRDP Per Capita (U.S. \$)
1	Riau Islands	1,588.6	56,833	3,913
2	Bangka Belitung	1,153.5	20,711	1,845
3	Maluku Utara	0,990.5	3,722	388
4	Maluku	1,358.3	6,381	495
5	West-NT	4,503.2	35,042	803
6	East-NT	4,704.8	21,211	468
7	North Sulawesi	2,249.3	27,405	1,242
Total (mean)		18,709.6	193,382.0	(1,308)

Note: Population data, 2011, 1 U.S. \$ = Rp. 10.000, -

The mobility of the people is a need for public transportation, can be measured by one's ability to perform the movement, where the movement of goods to follow the direction of passenger movement, growth and population density, as well as the economy of a region. Below in Figure 1, is shown projected needs of passenger movement in the archipelago province of eastern Indonesia.

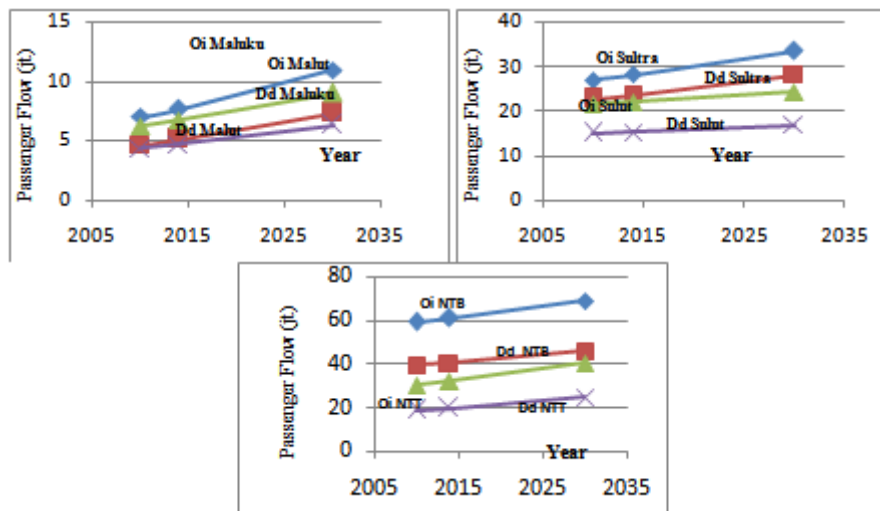


Figure 1. Passenger Projection, in eastern Indonesia

III. TRANSPORTATION ISSUES

Province of North Maluku and Maluku Islands: Accessibility is still low, sea transport network which became the backbone can not reach all areas of Islands Cluster [3]. Terminal facilities are limited, and not operating fleet specially designed to suit the needs of island cluster transport, including infrastructure and facilities that serve as a bridge crossing island cluster. It needs more provisions of transport for example pioneer land, sea, and air transport that can covered of all production centre until inland Regional [4].

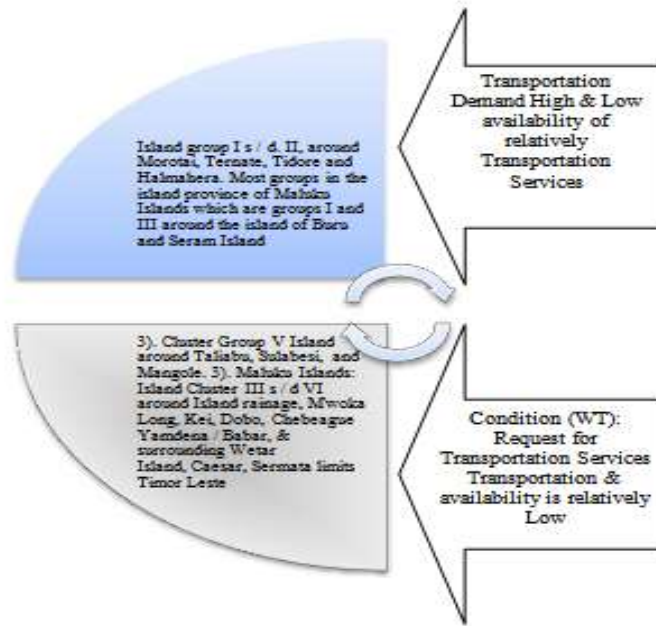


Figure 2. Transportation Strength, Weakness, Opportunity, Treat (SWOT) conditions Maluku Islands

Archipelago province of East Nusa Tenggara and West: The road network and public transport services are still limited reach to a pioneer or rural areas, low-performance sea transport safety. Mobility of goods and passenger transport with a relatively reasonable rates is a priority. Means and sea and air transport infrastructure has not been a lot of inter-island transportation support (frequency), especially in certain seasons. The intensity of public transport services by land, sea, and air in serving the people felt still far from the needs and affect the smooth running of the system.

Archipelago Province of North Sulawesi: The road network is not fully reach or are in small islands, carrying capacity transport services have not been effective. Availability of transportation facilities by public (People or Traditional Shipping Transport), has not been adequate, not yet reached the level of adequacy and reliability of the safety aspects in accordance with the provisions of International Maritimes Organisation (IMO) standards. Required increase in transport services and air-sea pioneer in the Philippine archipelago in the border state.

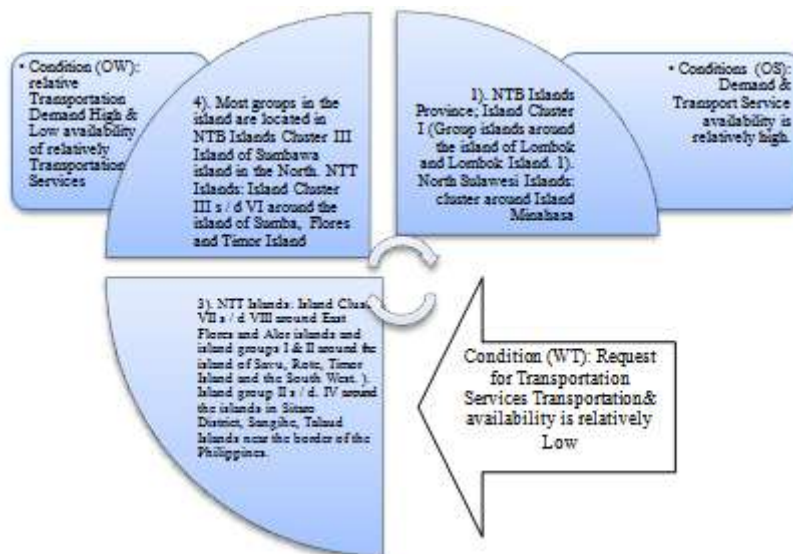


Figure 3. SWOT Transportation Nusa Tenggara and North Sulawesi

According to the external and internal conditions, which need to be considered in the development of transportation in the archipelago province of prosperity and well-being such as the following below and in Figure 5.

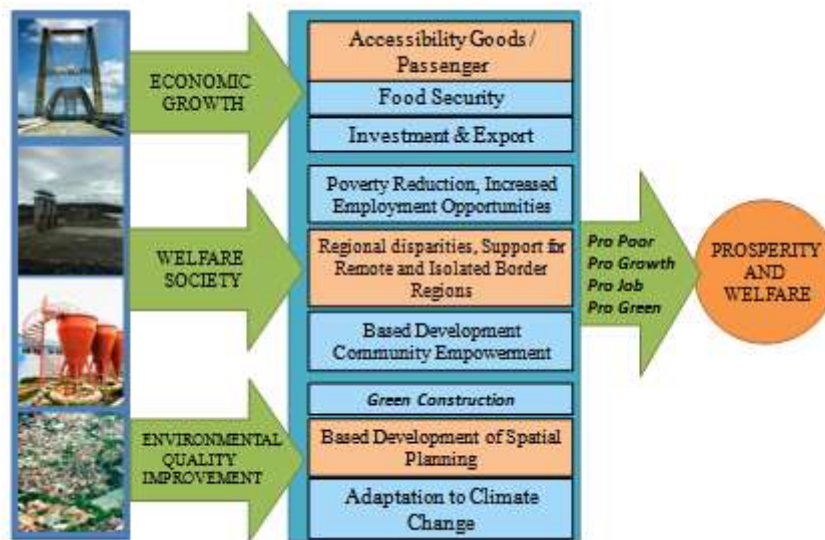


Figure 4. Policy and Regional Infrastructure Strategy

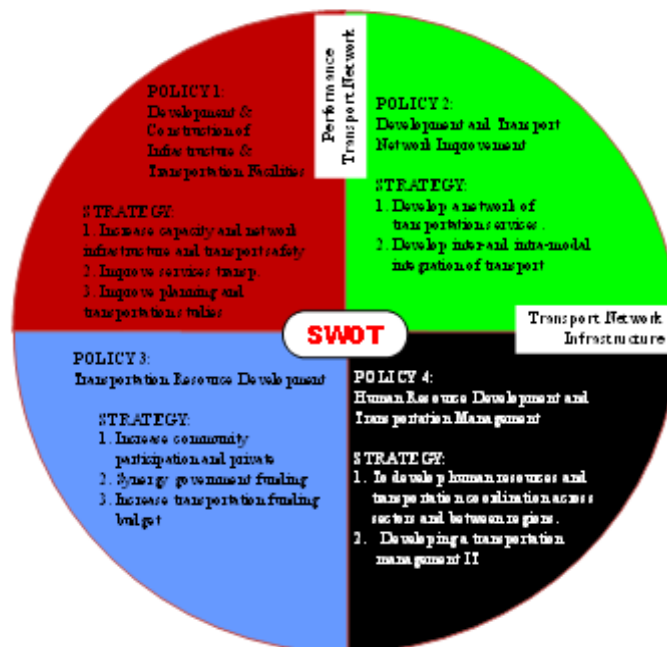


Figure 5. Formulation of Policy and Transport Development Strategy

IV. STRATEGY DEVELOPMENT

The general of Transport Development Strategy: The concept of development in the area of transport development archipelago Province in improving the accessibility of internal groups access to the island and border areas between countries (Philippines, Timor Leste and southern Australia) is the backbone oriented to sea transport system, the strategy and development of multimodal transport between the sea and the integrated crossings. Road transport is a supporter of hinterland connectivity and access to all ports, airports and crossings or Ferry transport [5].

land area), as well as consideration of the position of the island in front of the state borders, so as to accelerate and expand economic development in the Archipelago Province.

REFERENCES

- [1]. Ralahalu, K. A., Jinca, M.Y., Antonius, S. Siahaan, L.D., 2013. Development of Indonesia Archipelago Transportation, Brilliant International, Surabaya.
- [2]. Jinca, M. Yamin, 2011. Indonesia Sea Transportation (System Analysis and Case Studies), Brillian International, Surabaya.
- [3]. Antonius, S., 2013, Model Cluster Transport Trans Maluku Islands in support of Regional Development of Maluku province. PPs-Unhas dissertation, Makassar.
- [4]. Jinca, M.Y., (2006), *Rural Infrastructure Development, Sea and Air Transportation Sector*, (Menko Prekonomian, *University Network for Rural Infrastructure Development Australia Government AUSAID*, Jakarta.
- [5]. Antonius, S., Jinca, M.Y., 2012, Performance of the national road transport network service Trans-Maluku. *Internasional Journal of Civil and Environmental Engineering*, JCEE/IJENS.