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IMPACT OF SOCIO-ECONOMIC DEVELOPMENT OF TOLL ROAD: COMPARISON BETWEEN INDONESIA AND OTHER COUNTRIES

Zeis Zultaqawa[1], Mohammad Benny Alexandri[2] and Muhammad Donie Aulia[3]

Infrastructure Development is one of the supporters of a country's economic growth, but infrastructure development has an impact, such as the impact of Social-Economy. Infrastructure development does not always create a positive side for society. This is shown from the experience in Indonesia and other countries, such as land acquisition, isolation of the area, the increase of transportation and other costs. It is also necessary to consider the development of social and economic infrastructure that has a great influence on the growth of the economy. The study looked from other countries of China, Afghanistan and Vietnam. In this study also see the advantages and disadvantages of each country.

Keywords: Infrastructure, Socio-Economic, Infrastructure Development, Social Impact

INTRODUCTION

Lack of infrastructure hampers economic growth in many developing countries. Infrastructure investments have the impact of contributing to increased productivity and are expected to contribute to future economic growth in developing countries where infrastructure is still insufficient. Good infrastructure helps increase productivity and lower costs in direct productive economic activities, but should be expanded fast enough to meet infrastructure demand in the early stages of development. Construction costs for infrastructure such as the energy and transportation sectors are huge and the construction period is also long. Predicted patterns of demand and investment allocations, which are key factors in infrastructure development planning, should be based on long-term economic development trends and land-use planning, which predict temporary demographics and country spatial and economic structures (Kim, 2006).

The purpose of this study is to see the socio-economic impact of infrastructure development in Indonesia and other countries.

LITERATURE REVIEW

Definition of Infrastructure

Infrastructure is defined as various types of buildings ie roads, tunnels, bridges, trains, airports, ports, canals, subways and tramways, dams, irrigation networks,

[1] Universitas Padjadjaran, *E-mail: Zeis.zultaqawa@gmail.com*
[2] Universitas Padjadjaran, *E-mail: bennyalexandri@yahoo.co.id*
[3] SAPPK ITB, *E-mail: donie.aulia@gmail.com*

water pipes, water purification plants, sewers, water treatment plants, landfills and incinerators , power plants, power grids and distribution networks, oil and gas pipelines, telephone and network exchanges, district heating equipment, etc.

The American Heritage Dictionary of the English Language writes that the term: Infrastructure "has been used since 1927 to refer collectively to [...] roads, railroad bridges, and similar public works", (Prud, 2004)

Infrastructure Development

One of infrastructure development is investment in toll road sector. The impact of the toll road development will increase the development of the area indicated by the housing and transport sectors. Each 5% increase in investment will drive an increase in the number of movements by 0.2%, GRDP by 0.25% and indirect housing by 0.05%, while for a 10% increase it can drive 0.4% GRDP 0.5% and number of houses by 0.1%. (Dadan Hamdani, 2010).

Contributions Provision of infrastructure services such as water, sanitation, transportation and energy directly can dramatically improve wellbeing, seen in Figure 1.

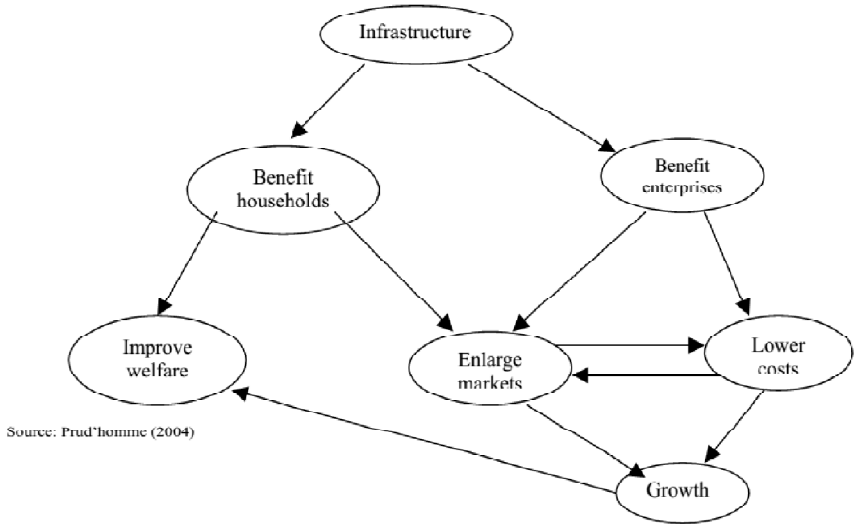

Figure 1: Infrastructure Contribution to Welfare

Sumber : Cecilia *et al.*, 2004

Infrastructure development generates benefits for households and companies. Causing the development of markets due to the low cost of transport that improves the welfare of society (Cecilia *et al,* 2004).

EXPERIENCE IN INDONESIA

Indonesia is keen to catch up with infrastructure development. One of them is the construction of toll road. The government target until 2019 is the construction of a 1,800 km toll road. Toll road construction is an alternative to increase the length of road to add existing road network system to reduce congestion. Uneven road growth with population growth and increasing number of vehicles caused congestion, especially in a number of major cities of Java Island. Effects caused by congestion include waste of vehicle operating costs (BOK), increased travel time which if quantified will show the amount of big economic losses. The loss is none other than because the transportation sector gets a large percentage in the economic life of the community. Residents of big cities spend 20-30% of their income on transportation, while transportation industry sector also contributes 20% of all production costs. (Pradono, 2011).

The construction of the Cisundawu toll road in West Java has had a social and economic impact. From the social aspect, the impacts arising from the construction of this toll road include, among others;

a) People's dissatisfaction with the land acquisition process, especially regarding the price of compensation to the people whose land is used as the toll road development land;

b) Horizontal conflict occurs because of the attitude of pros and cons in society against the development plan;

c) Potential emergence of negative perceptions of the community especially if the project activities have a negative impact on economic, cultural, health and environmental aspects. Negative attitudes that accumulate over the long term will cause unrest in the community and have the potential to generate both vertical and horizontal conflicts.

d) As a result of the construction of Cisumdawu toll road is estimated 750 ha of paddy fields are also missing so it is estimated Sumedang regency will lose the production of rice about 22,500 tons per year. In this connection there are still social and cultural factors that hinder women farmers and other vulnerable groups (elderly, widows, disabled and children) to participate actively in the planning, implementation and implementation of development activities. From the economic aspect to the people in this region is mainly predicted by the possibility of business volume caused by the decrease of vehicle volume passing through the lane.

Wibowo (2016), the need for development in the field of economic and social infrastructure for economic growth of Indonesia. The results show that economic and social infrastructure simultaneously have a significant effect on economic growth. Partially, infrastructure that has the greatest positive impact on consecutive

economic growth is electricity infrastructure, health infrastructure and educational infrastructure, while road infrastructure has no effect on economic growth in Indonesia. In addition, this study also found that economic growth in the majority of the eastern islands of Indonesia, namely Nusa Tenggara, Sulawesi, Maluku and Papua is smaller than the economic growth in all western islands of Indonesia.

EXPERIENCE IN OTHER COUNTRIES

China

A field study was conducted at Changyang Tujia Autonomous Region in China, investigating the socio-economic impact of the first hydropower project built in this area, named after the Geheyan dam. The result of the research is that Geheyan creates horizontal inequalities between relocated and unrelated people immediately after the relocation is realized, prominently as the rapid rise in commodity prices combined with a time-consuming process in 2008 restores the production system. However, from a long-term perspective, it takes people out of poverty and improves both socio-economic development groups through enabling urbanization and tourism. This positive example of infrastructure development has an impact on socio-economic development. The development mainly focuses on those who are relocated, soon after it is relocated, on the grounds of relocation resulting in the backwardness of people's livelihoods (Zeynep Erdal, 2012).

The experience of rural toll road construction in rural areas of China is a negative example of infrastructure development. The main reason is that the implementation of this toll road has prevented farmers access to markets and rice fields on the other side of the area due to the existence of toll roads. It is termed that toll roads as' invisible walls' 'create the opposite effect of limiting the flow of people, vehicles and commodities. On the other hand, tolls can reduce traffic and delay. Socially, this dilemma has raised tensions between farmers and local governments. Rural road users (farmers) must pay tolls at all times when they travel to the market or rice field, in addition to other levies. Sometimes, riots have occurred. Other researchers for the case of infrastructure development in China show that it takes 5-10 years to realize the economic benefits brought by transportation. (Him Chung, 2002).

With assistance from the Asian Development Bank (ADB) in 1998, road construction in Hebei province, during the construction phase of the Project employs 21,000 people over 34 people a month, generating about 1.2 million person-months. About 80% of these workers are recruited locally. Farmers living near toll roads account for 80% of unskilled labor employment. This work earns 3,000 Yuan per household, or 30% of the annual income of ordinary households at the time. A total of 1,400 staff remain employed in traffic management, maintenance, toll collection, and office management on the highway. In addition, more than 500

temporary employees at gas stations, hotels, restaurants and shop facilities at four roadside stations. Women benefit greatly from this project, accounting for about 60% of staff employed. (Kim Jraiw, 2005).

Afghanistan

Road improvements directly affect (i) Transport sector, either directly or indirectly in (ii) Trade sector, (iii) household sector, (iv) agricultural sector and (v) institutional sector as shown in figure 2 below:

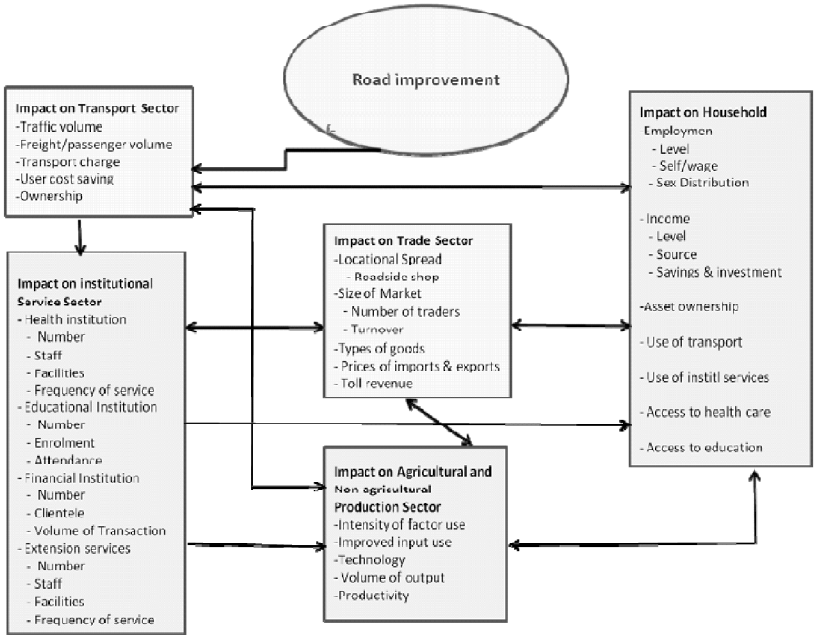

Figure 2: Impact of Road Improvement

The case in Afghanistan in the Rehabilitation project - reconstruction of 995 km of Kabul road to Kandahar and Kandahar to Herat Road (South Ring Road) has generated significant profits and increases in business and income within the zone of influence of the road (ZOI - an area of 15 km in both sides of the road from Kabul to Kandahar and Kandahar to Herat). The survey was conducted in the early summer of 2008, compared to similar data generated by research conducted in 2003. ZOI covers an area of approximately 31,680 km2 along the southern ring road.

Road improvement projects have resulted in an increasing number of stores in the market in ZOI village. The total number of stores almost doubled from 96

stores to 190 (+ 97%) after "road construction." More than 90% of shop owners interviewed have stated that they have used the project road to obtain their merchandise. day in all market surveys was 314,410 Afs ($ 6,288), and average daily storefront sales of individual stores was 1,655 Afs (S33) Compared with 2003 Baseline Survey on KK and KH roads, it showed that there was a significant increase in sales volume markets in ZOI along four project roads at the provincial level

Two projects of Japan Bank for International Cooperation (JBIC) assistance in the transportation sector, namely the increase of National Highway No.5 and the expansion of Hai Phong Port. With the aim of economic growth and poverty reduction in the region concerned. Both projects began in 1994 and were completed in 2000. No. 5 connects Gia Lam Ha Noi district and Hai Phong Port which is the largest commercial port in northern Vietnam. In addition to the No.5 and Hai Phong Highway projects, JBIC is funding other major roadway improvement projects, including the upgrading of Highway No.18, No. 10, expansion of Cai Lan and other ports.

Both transport projects also had a significant impact on regional economic growth, comparing the growth rate of DRR (gross regional product) of provinces in northern Vietnam between 1995 and 2000. The results show that provinces along Ha Noi-Hai Phong transportation corridor , such as Ha Noi, Hung Yen, Hai Duong and Hai Phong, have higher growth rates than others. Poverty levels in these provinces also declined. The rate of reduction of poor households in the northern provinces from 1998 to 2000 was compared, and it was shown that provinces along main road number. 05 also achieved a larger reduction of poor households than others. The reduction of poverty along the Ha Noi - Hai Phong corridor is significant. The impact of two transport projects from two points of view is seen from the side of foreign direct investment (FDI) and rural economic development along the highway. The impact of FDI promotion on economic growth and poverty reduction is examined from four perspectives, namely industrial growth, job creation, linkages with local industries and fiscal contributions.

THE IMPACT OF FOREIGN DIRECT INVESTMENT (FDI)

By comparing the amount of foreign investment capital in the northern province of Vietnam from 1999 to 2002. This shows that Ha Noi and Hai Phong remain the most popular destination for foreign investors, and other interesting provinces are located along Ha Noi - Hai Phong transportation corridor. It is estimated that FDI inflows in four provinces along increased national GDP by 1.9% in 2001 compared to the previous year. If we only look at the impact of FDI inflows on regional economies in the north, it shows that GDP in the Red River Delta increased by 9.1% in the same year. Of the general statistical data, it also shows that 15% of GDP and 37% of gross industrial output of the four provinces were produced by foreign companies in 2000.

The impact of FDI on poverty alleviation, on the other hand, is still limited. Foreign investment is sure to generate valuable jobs, but the impact is very small on the local economy. For example, foreign companies in four major industrial zones in the north create about 14,000 jobs now. The same number of workers is also employed in the provincial industrial zone along.

However, the share of foreign companies in the total industrial workforce in the four provinces was just 6% in 2000.

IMPACT OF RURAL DEVELOPMENT

It is shown from this household survey that the rural economy undergoes a significant structural transformation. Agriculture still has the largest share of average household income, but income from livestock, fishery and trade production has increased significantly in the last five years. One of the important social aspects of Highway No.5 seems to be a traffic accident. Many households surveyed indicate that the highway is dangerous or difficult to pass. However, due to a series of traffic safety campaigns by public authorities, this issue seems to be under control now. Even though Highway No. 5 had higher accident rates, less injured roads and deaths than the national average.

It is certain that the No.5 highway repair, Hai Phong port and road feeder feeder to the highway plays an important role in promoting rural development. (JBIC, 2003).

CONCLUSION

Infrastructure development in Indonesia is constrained by land acquisition, community landowners' discontent in terms of compensation is the cause, changes in land function used for infrastructure development cause losses in other sectors. The need for development in the field of economic and social infrastructure for economic growth of Indonesia. Economic and social infrastructure simultaneously has a significant effect on economic growth. Partially, infrastructure that has the greatest positive impact on consecutive economic growth is electricity infrastructure, health infrastructure and educational infrastructure, while road infrastructure has no effect on economic growth in Indonesia.

In China, the construction of toll roads creates a negative side for the community, namely isolated areas and increased transportation costs. This has led to conflict with the government. In rural areas (rural) new benefits can be felt 5-10 years later. In Afghanistan and Vietnam, infrastructure development improves people's welfare, increased income, employment and so on.

FURTHER RESEARCH

The influence of socio-economic infrastructure on economic growth, namely to find the relationship between indicators of social-economic infrastructure with the economic growth of a region / region.

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