Outer Island Development in Crossborder Cooperation Framework: Cooperation or Exploitation? (Study Case: Natuna Island in Singapore – Johor- Riau Cooperation)

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Abstract. The development of the outer islands has not been widely discussed in literatures. As a peripheral area, its location which are remote and intersects with border areas of other countries caused the form of development to be different from the development in the mainland. One form of development on the outer island can be linked with cross-border cooperation. This study argued that based on the Natuna Island’s case study, trans-border development through cooperation between countries is a promising form for the development on the outer islands. But exploitation will occur if the government does not guard the process of development of the outer islands in the trans-border cooperation. The flow of goods that are not accommodated with appropriate access can make the outer islands being only as suppliers of goods that are not recognized by formal data. It caused their existence not being considered important in the cooperation between countries.

Keywords: Trans-border Development, SIJORI, Natuna, Periphery

1. Introduction
Indonesia as an archipelago has many outer islands that needs to be developed. In the Presidential Decree No. 6 of 2017, the government established 111 outer small islands to be the focus of attention in the context of the development of Republic of Indonesia (NKRI). However, the form of development of the outer island region was still very limited in the discussion of regional planning literature, so it required deeper exploration of the concept of the outer island development that can be applied specifically to the nation’s island.

The concept of regional development has been based on neo-classical economics theories which emphasize economic growth and commodity competitiveness, thus potentially increasing the disparity between regions. Development programs initiated by the government, mostly emphasized on macro-economic growth and often ignored large gaps between locations that are favored by investors and not based on location theory, which only cause exploitation of natural resources for peripheral regions (3).

The island, as the area that need to be developed, has different spatial conditions than the mainland. The island is a combination of smallness, remoteness, and oceanic (Kakazu, 2011), so it is necessary to understand the concept of regional development with these characteristics. Some of the outer islands also intersect directly with other countries, which can change the shape of the development. The outer islands are not only the peripheral areas of the closest region but also for other countries.

With the characteristics of the location, the use of cross-border development as a framework for developing the outer islands might be allowed. Borders can be a fence that separates one area from another and makes it difficult to cooperate, but on the other hand it can also be a zone of connectivity and cooperation (10). The aims of this study are looking at cross-border cooperation in the
development of the outer island region and knowing the role of the outer islands in trans-border cooperation to create a balanced regional development.

2. Methods

2.1. Object, Place and Time of Research
The object of the study focused on the activities of the fisheries business in the studied location. The fisheries business is considered as an economic activity that is quite influential after the gas industry and had a significant role in the SIJORI agreement. This research was conducted in Natuna Regency, Riau Islands Province, Indonesia. While the time of research was in October 2017.

2.2. Research Methods
This study used descriptive methods that aim to provide a general, systematic, factual and actual description. Descriptive methods were carried out using a qualitative approach and supported by quantitative data. The implementation of the research at the location of the study was by survey techniques. Survey technique is a research that takes samples from one population and uses questionnaires as the main data collection tool (16).

3. Results and Discussions

3.1. Concept of Outer Islands Development
Regional development are the step to improve the socio-economic life of the community, to reduce disparity between regions, and to manage environmental sustainability (14). Regional development is indispensable because of the socio-economic, cultural and geographical conditions that are very different from one region to another and are an effort to harmonize natural resources, human beings and technology, taking into account environmental carrying capacity (Zen, 1999 in (15)).

The concept of regional development is largely based on the development of the neo-classical regional economy which only prioritizes economic growth. But if one is talk about developing the archipelago, of course it will have a distinctiveness from the mainland countries. Especially when talking about the outer islands that have elements of remoteness, smallness, and oceanic (Kakazu, 2011) as well as their spatial contact with other countries. From the various concepts of regional development offered, the development of the outer islands would be more appropriate if this study uses a core-periphery perspective, because the development of the outer islands in various parts of the world originated from the understanding that the outer islands are peripheral regions (9). The peripheral area is a lagging region that hopes that the economic activities that occur in its core region will cause what is called by Hirscman (1958) as trickle down effects.

In developed countries that have outer islands such as Japan and the Philippines, they tried to build their peripheral regions for both economic and security purposes. The national government of Japan created a good business climate so that investors are willing to build infrastructure and some other forms of investment in the outer islands and balanced with the readiness of local communities, both local entrepreneurs and local governments (9). Usually, the national government builds the outer islands as a destination and as a place for the development of several renewable energy programs. That is, their national governments have given an important role and clear division of regional functions to the outer islands.

The concept of that kind of development is in accordance with the concept of functional integration, an alternative development approach that was created intentionally at various centers of growth because of its complementary functions. The concept of peripherals that are functionally integrated have strong bond going forward and backward from a production process.

3.2. Cross-border Cooperation: Singapore - Johor - Riau (SIJORI)
In functionally integrating between regions, one form of development that can be initiated is cross-border cooperation. Trans-border development was considered as a development framework to build an economy between border regions (6). The purpose of developing a region with trans-border development is the utilization of potential and resource management possessed by each region, so that it will complement each other and be integrated. This integration is not only because it has the same
economic needs but also due to the closeness of the culture given by the adjacent spatial conditions. It is hoped that later in the long-term perspective, integration that will occur will foster regional and local economies so that the region will develop and become independent.

In cross-border cooperation between regions, the scope is no longer a cross-border area, but trans-border or between cross-border areas (Baranyi, 2007). Cross-border areas then become the arena of economic, social and political cooperation owned by different countries (Engl, 2009). Usually, the initial growth of closeness between border areas is based on the process of moving goods, due to the increasingly-open access to transportation and the movement of people between regions. This background also happened to Singapore, Malaysia, and Indonesia.

Singapore has transformed into a highly-developed region with a high level of economic growth. As a result of Singapore's very limited land area, this caused land prices in Singapore to become very expensive. In addition to land prices, labor costs also increased. The average income from the manufacturing sector in 1989-1990 increased 12%, making foreign companies evaluate their investment in Singapore. Increased wages that are not offset by increasing productivity and increasingly expensive land prices make companies think of relocating their businesses to other regions with cheaper production costs (8).

Singapore, which has skilled workers and excellent infrastructure, began to look for other areas as a form of expansion of its business. Its proximity to Johor and Riau, prompting Singaporean Prime Minister Goh Chok Tong to think of building cooperation that allows industrial relocation, given the availability of sufficiently large and relatively inexpensive land in the two regions (13). Johor had a half-trained staff and Riau had a low wage for workers. Finally an agreement was reached regarding the specialization of the division of roles in shaded economic activities in the 1989 SIJORI agreement. The SIJORI agreement was expected to be "The Triangle of Growth" with the aim of covering; infrastructure development; development of natural and human resources; and the development of industries for export interests beyond national borders.

3.3. Implementation of SIJORI Cooperation: Unbalanced Regional Interactions

The division of work that occurred in the Growth Triangle can be seen from the core-periphery perspective. Singapore has good infrastructure, financial resources, technology and transportation, making it the core region. The Johor area was devoted to the development of economic zones and research activities (R & D). While for Riau Province, it was divided into Batam as a high value-added manufacturing area, Bintan for tourism activities and labor intensive manufacturing industries, while small islands such as Natuna, Anambas, and other islands were initially only for nature resources such as mineral, fisheries and agriculture.

SIJORI's cooperation has resulted in several changes, including increasing foreign investments and the population due to migration. In 1990, Johor received foreign investment from Singapore, Japan, and Taiwan worth USD 800 million / year, an increase of four times compared to the SIJORI agreement (7). Batam also experienced an increase in investment flows of USD 230 million / year. Economic growth in both regions continues to increase (18).

The positive impact was seen by the government both Malaysia and Indonesia as a success of mutual coherence. Finally the government submitted 3 Malaysian states and 6 other provinces in Indonesia to be included in the growth triangle. But it becomes ineffective because the division of roles was not very clear (13). This was compounded by the occurrence of crises in both Indonesia and Malaysia which eventually slowed the economic pulse in the triangle area and changed relations between countries after the crisis ended due to changes in political order (12). Each country considered economic activity in the triangle area to be limited to business-to-business which is nothing more than a form of trade and cross-border business. In fact, Batam was only used as an entry point for goods to be exported and industries with foreign capital that are very dependent on foreign market demand, without having a unique value of competitiveness. In the 2012-2017 period, 170 were closed and foreign companies withdrew their capital.

The success of the growth triangle that seems stalled, showed that there were neglected sustainability aspects, especially political will sustainability. SIJORI is currently considered no longer developing, according to SIJORI observer Prof. Dr. Ir Bun Yamin Ramto SE, as a result of policy makers and economic actors in the three regions being less proactive in accommodating common interests in such cooperation (11). Growth Triangle must be driven by strong political commitment and
manifested in concrete action activities. The sense of dependency must be owned by each country as something complementary so that the need to remain partnered remains high. The concept initiated by Martinez regarding interactions in the border region can help see the trans-border cooperation between Singapore, Malaysia, and Indonesia, as shown below:

The implementation of the current SIJORI trans-border development has not been as expected. Ideally, the economies of countries that join functionally, and the free movement of people and goods across the border should no longer be restricted. Both countries can be seen as a single social system (Hardi, 2004). Between Singapore, Malaysia, and Indonesia, a maximum integration process was not established because it seemed that only the Indonesian side needed the presence of Singapore and Malaysia as a market. The supply of goods from Indonesia to the two countries was very good but the reciprocity was not felt by the Indonesian side. This failure was also one of the weak political will of the government to jointly make trans-border cooperation into mutually beneficial cooperation. Participation of every stakeholder at national, regional, and local levels is needed to realize the long-term goals of neighboring relations within a sustainable development framework (Anderson, 2003).

3.4. Natuna's role in the Development of SIJORI Cooperation.

The SIJORI cross-border cooperation has affected the development of the outer islands. The economic activity that occurred in Batam as one of the cores of Natuna Island, also caused economic writhing on Natuna Island. The island can no longer be isolated and tries to find a way to get into the construction of its closest area. One of the potentials of Natuna Island is fishery commodities. The economic structure of Natuna Regency based on the business field is indeed dominated by the Mining and Excavation sector, especially the Oil and Gas sub-sector. The share of GRDP in the sector in 2015 was more than 75%. While the agricultural sector share including the fisheries and forestry sector was very low (less than 10%). However, if the Oil and Gas sector is issued, the role of the fisheries sector is very dominant (more than 40%). This shows that the fisheries sector can be a mainstay in the economic development of Natuna Regency.

The fisheries commodity offered by Natuna Regency as the outer island, turns out to have the potential to be sold in Singapore and Malaysia. Singapore is a country that is growing with tourism (bringing in many tourists and the tourism industry) and the lifestyle of people who are turning to healthy lifestyles. In 2016, Singapore imported fishery products amounting to USD 1.07 billion or 193,700 tons from China (US $ 139 million or 20,543 tons), Malaysia (US $ 135 million or 43,812 tons), Indonesia (US $ 110 million or 31,995 tons) and Vietnam (US $ 75 million - 32,599 tons), Norway (US $ 75 million - 8,685 tons and Japan (US $ 58 million or 2,776 tons). While Malaysia, imports fish worth USD 885 million in 2016. Malaysian fish suppliers come from China at USD 234 million, Indonesia is USD 171 million and Thailand is USD 81 million. This shows that Singapore and Malaysia's needs for fish are quite high, thus becoming a promising market.

From a number of fish that flew to Singapore and Malaysia, there was an important role from Natuna Island. A number of fish were the catches of Natuna fishermen who were taken to Singapore and Malaysia through the cities of Batam, Pemangkat, and Tanjung Pinang. But what later became the reason for the role of the outer islands not seen in trade, especially fish in the SIJORI context was, that
there was no recorded fish volume from Natuna Regency to Singapore, but Singapore fish traders already had accomplices in Batam. This had implications, not only does Natuna Island's role not being recognized, but also the pricing that was very determined by traders in Batam and finally, the farmer shares of Natuna fishermen were very small. This form of trading shows the periphery-core hierarchy as follows:

![Core-Periphery Structure in SIJORI](image)

Many peripheral regions eventually continued to be left behind because the core area only extracted peripheral regions according to their needs (4). This was the case in Natuna because it was not guarded by regulations and stakeholders (national and regional governments). Natuna is the bottom periphery of the existing regional hierarchy. The form of polarization in the SIJORI triangle area can cause two effects, namely what Myrdal (Streeten, 1990) calls a backwash effect (increasingly marginalizing the periphery) and spread effects (encouraging the development of peripheral areas).

| No | Effect                          | Condition                                                                                     |
|----|--------------------------------|------------------------------------------------------------------------------------------------|
| 1  | Human resource flow            | Mobility of residents from the Natuna region to Batam. This shows that there is no human resource development in the periphery region |
| 2  | Flow of financial resources    | Unbalanced investment flows, lack of physical development on Natuna Island                     |
| 3  | Flow of raw materials          | Natuna extracts its fisheries resources for the business interests of other regions (Batam, Tanjung Pinang, Pemangkat, Hongkong, Singapore) |
| 4  | Information resource flow      | Business actors (Natuna fishermen and agents act as price takers that have been set in Singapore as "receptors") |
| 5  | Power flow                     | In the Sijori context, power was held by the Riau Provincial Chamber of Commerce and trade representatives from Singapore and Malaysia |
|    | Spread Effect                  |                                                                                               |
| 1  | Trade network                  | The opening of a wider market outside the Natuna area                                           |
| 2  | Transportation facilities      | The construction of several means of transportation to facilitate the movement of goods (raw material in the form of fish) |

From the table above, it can be seen that in the context of transborder cooperation, the form of regional development carried out more often creates a backwash effect that can actually be improved by stakeholders. Government escort and the participation of the role of the local community are expected to minimize the backwash effect caused by transborder development in the SIJORI region.

4. Conclusions
The border area consists of a group of people that need to be directed, controlled, and protected because it is full of different interests that must be protected politically. Trans-border development carried out through cooperation is a promising form for the construction of the outer islands. The presence of the government as a regulator and staff member in cooperation with trans-border area is very vital. The role of the government as a regulator and provider of infrastructure must be felt by the outer island communities in order to create a good business climate.

Exploitation will occur if the governments are insensitive and do not guard the process of developing the outer islands in the framework of trans-border cooperation. Even the flow of goods that
are not accommodated with appropriate access can make the outer islands only as suppliers of goods that are not recognized, which make their existence not considered as important. Outer islands such as Natuna, which have primary products as important needs of neighboring countries, should be given access to directly export their fish to core countries so that the bargaining position of the outer islands will be more visible. In addition, given the opportunity to export without having to sell it to Batam, it will increasingly pump up the local economy which is expected to bring local entrepreneurs on the outer islands.

Technically, it needs to be understood that the division of roles in such cooperation must be clear, including the role of the outer islands, and is important so that complementary integration can occur between regions. The division of labor must be stated in an agreement integrity pact as part of the cooperation that must be fulfilled. The steps that can be taken by the government are: 1). Evaluation and negotiation with partner countries related to trans-border cooperation between Singapore, Johor, and Riau by including Natuna's role in the framework of cooperation. The division of roles in the development of cooperation needs to be followed up in regional policies including the ease of direct export of fish to Singapore and Malaysia; 3). The need for integration of plans and policy documents as financial plan and legal umbrella in each Regency / City should be adjusted.

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