

Study of Educational Thematic Data in the Indonesian Border Region in Nusa Tenggara Timur Province

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ABSTRACT

This paper wants to see the problem of education in the Indonesian border region in the Nusa Tenggara Timur or East Nusa Tenggara Province (NTT). The research method used by examining some literature and using quantitative descriptions with data sources is secondary data. The data obtained came from the Ministry of National Development Planning/Bappenas. The data taken is devoted to the results of the analytical method with a "thematic" approach. The growth of education services in NTT has increased as an investment in education by the government. However, the average education rating in NTT was the fourth lowest in Indonesia. The districts in the border areas that have better conditions as the third priority are Timor Tengah Utara, Kupang, and Belu Regencies, whereas communities in the border areas as the second priority are Alor and Malacca Regencies. The primary problem is the sustainability problem, the willingness of students to continue their education in each generation. Then there is a problem of stability, where border areas in NTT were prone to disasters. Also availability problem, the availability of teachers and school infrastructure and the number of students who continue their education.

Keywords: Education, Thematic method, Indonesian border, Nusa Tenggara Timur, Timor Tengah Utara, Kupang, Belu, Alor, Malaka.

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Highlights of this paper

- This study wants to see the problem of education in the Indonesian border region in the NTT Province.
- The findings show that districts in the border areas that have better conditions as the third priority are, Timor Tengah Utara, Kupang, and Belu, while the people in the border areas as the second priority are Alor and Malaka.
- The study recommends that the government must look at the educational problems associated in the border region viewed from various angles, sustainability, stability, availability, affordability, and accessibility issues.

1. INTRODUCTION

The province of Nusa Tenggara Timur (NTT or East Nusa Tenggara) is known as a region with very low levels of education for its people, compared to other regions in Indonesia. This must be addressed because the quality of human resources will influence the way of thinking and innovation of the community in managing natural resources and improving their standard of living. That way education programs need to be improved in all regencies, especially in border areas that are sometimes not touched at all.

Inter-regional disparities are the main focus in the current framework of regional development in Indonesia. This can be seen in the current National Mid-Term Development Plan document, where it states that the main policy direction for national regional development is focused on efforts to accelerate the reduction of the local development gap by encouraging the transformation and acceleration of the development of the Eastern Indonesia region, namely Sulawesi, Kalimantan, Maluku, Nusa Tenggara and Papua, while maintaining the momentum of growth in the Java-Bali and Sumatra Region (President, 2015).

Acceleration and transformation of regional development rest on improving human resource capacity, increasing productivity, efficiency and value-added natural resources, strengthening the role of science and technology, providing integrated and equitable infrastructure by taking into account regional and global geo-strategic positions that utilize the optimal presence of Sea Lane of Communication and the Indonesian Archipelago Sea Channel (RI Ministry of PPN Bappenas, 2017).

Djojohadikusumo said that two of Indonesia's three long-term development problems are concerned with the issue of inequality or inequality, namely the imbalance in the balance of power between the groups of society and the economic imbalance between regions. One other problem is the issue of productive employment and unemployment. It can be understood if the problem of inequality or disparity between areas has always been one of the main problems of regional development in Indonesia (Djojohadikusumo, 1994).

Each region in Indonesia has different characteristics, and therefore in preparing the proposed program/activity to be formulated, it cannot be generalized (symmetrical) and must use a different approach for each region (asymmetric). To be able to arrange programs/activities that are by regional issues or problems, in-depth and comprehensive studies are needed for each area, especially those related to the primary indicators of local development (RIMoPPNB, 2017).

The border area in the province of East Nusa Tenggara is dominated by agriculture and livestock. The obstacles to developing the potential of natural resources in the border region that often occur are the issues of the low quality of human resources because of the lack of optimal service and quality improvement in human resources. Programs related to training and education for border communities to improve their skills / capabilities in managing the natural resource potential of the border region are still very rare. The issue of the lack of educators / instructors in the land border area has hampered the service and improvement of the quality of human resources in the border communities (BNPP, 2015).

The lack of optimal development and utilization of basic facilities or infrastructure in border areas is a common problem that occurs in almost all Indonesian border areas. If the border area is left backward and isolated, less accessibility, especially access to public services, the central government, or other developed regions causes the welfare of the community to be low. The quality of human resources and distribution of the population is uneven because the geographical characteristics of the area also make a large contribution. Environmental damage is caused by uncontrolled exploitation of natural resources beyond its carrying capacity, adding to the complexity of the problems facing Indonesia's border areas (Kennedy *et al.*, 2018).

This paper wants to look at regional issues or problems, especially the problem of education in the Indonesian border region in East Nusa Tenggara Province. The investigation was carried out by the Ministry of PPN/Bappenas, Deputy for Regional Development, whose data was used as material in this study. It is expected that the amplitude of government data amplitude can be one of the inputs for the central government and regional governments in order to formulate programs/activities that are most suitable for the local area.

2. LITERATURE REVIEW

The gap phenomenon occurs because of differences in the allocation of various economic growth factors. Hirschman sees that disparities occur in not only inter-state economic development but also variations in regional development. If in this world there are developed countries and underdeveloped countries, then in a state there are developed regions and poor regions (Nurzaman, 2002).

In regional science there are various kinds of gaps, for example gaps that are motivated by differences in economic activities such as urban areas and rural areas, holes that are influenced by natural conditions such as coastal areas and inland areas, or gaps caused by administrative factors such as inter-provincial gaps and gaps between districts / cities and so on. In a broader framework, gaps that occur in Indonesia, especially between the Western Indonesian Region (KBI) and Eastern Indonesia (KTI) are motivated by almost all of these differences, namely economic activity, natural and administrative conditions (RIMoPPNB, 2017).

The origin of the inter-regional gap or regional disparity is rooted in non-economic problems and is closely related to the capitalist system which is controlled by profit motives. This motive encourages the centralization of development in regions that offer high-profit expectations, while areas that do not promise high profits will remain underdeveloped or stagnate (Jinghan, 1990).

Some theories and concepts try to explain the mechanism of the occurrence of gaps and tools to reduce that gap. The polarization effect theory explains the tendency of increasing inequality due to the flow of factors of production from underdeveloped regions to developed regions, while the trickling down effect theory explains the trend of increasingly smaller gaps due to the shifting of resources (especially capital) to the underdeveloped areas due to economic inefficiencies in the regions that are already advanced. In another concept but still, in the same idea, the phenomenon of increasing inequality is referred to as a result of the occurrence of a backwash effect, while the aspect of reducing the gap is a result of the spread effect. An optimistic view is represented by Hirschman who argues that at some point trickling down effect will work stronger than the polarization effect (so the gap will decrease), while Myrdal represents a more pessimistic view because according to him the backwash effect will always be more significant than the spreading force (which means gap will tend to get bigger) (RIMoPPNB, 2017).

The trend of increasing inequality (divergence) or the smaller gap (convergence) has always been the subject of study that has been discussed to date. Kuznets became a pioneer in the empirical analysis of historical growth patterns in developed countries. He found that in the early stages of growth the income distribution would tend to

deteriorate, but would improve in the later stages. This observation is widely known as the concept of the inverted U-curve of Kuznets (Kuncoro, 2004).

Williamson is trying to understand the phenomenon of regional divergence and convergence empirically at the local or regional level, namely by observing the degree of disparity in various countries that have different levels of development (Nurzaman, 2002).

Williamson stated that during the initial stages of development, regional disparities or gaps were more significant and development was concentrated in certain areas. But at a more mature stage of economic growth, there appears to be a balance between regions and significantly reduced disparities. Williamson explicitly gives the spatial dimension to Kuznets' reversal curve, that is, by not focusing on household income disparities but inter-regional inequality at the level income per capita (Kuncoro, 2004).

3. METHOD

The research method used is conducting several literature reviews and using quantitative descriptions with data sources as secondary data. The data obtained comes from the Ministry of PPN/ Bappenas, Deputy for Regional Development. The data taken is devoted to the results of the analytical method with a Thematic approach, namely the determination of priority themes within a planning period. In this paper, the issue is especially education in the Indonesian border region in East Nusa Tenggara.

These thematic data by the government will be synchronized with the results of the holistic, integrative and spatial analysis. "Holistic" is a thematic translation into a comprehensive technocratic plan starting from the upstream-downstream of a series of activities; review of all components, and consider the time series. "Integrative" is an effort to integrate the implementation of program planning seen from the role of ministries/institutions/regions/other stakeholders and efforts to integrate various funding sources. Whereas "spatial" is the elaboration of the program in one region and the interrelationships between areas (PPRI, 2017).

Thematic is the determination of priority themes within a planning period. The thematic for this study focuses on education. To be able to direct the holistic analysis method of a thematic into a structured way, the scope is grouped into five groups of categories, namely availability, accessibility, affordability, sustainability, and stability. The analysis of these thematic levels aims to map districts/cities in the border region at East Nusa Tenggara province which has a thematic composite value with low, medium and high achievement levels. This thematic composite value uses 5 (five) elements of its formation category, namely (1) availability, (2) accessibility, (3) affordability, (4) sustainability, and (5) stability, which can be seen in Table 1.

In determining the district /city has a composite value with a thematic /low, medium, and high achievement level defined by 3 (three) criteria as follows:

- **LOW Thematic Achievement/District/City Category.** If, the district/city composite value is smaller than the provincial value and national value, or the district/city value is lower than the national importance and smaller than the rural value.
- **MEDIUM Thematic Achievement Levels/District/City Categories.** If, the district/city composite value is greater or equal to the provincial value and smaller or fair to the national importance, or the amount of the district/city is greater or equal to the domestic value and lower or equal to the provincial value.
- **HIGH Thematic Achievement Level/Regency/City Category.** If, the district/city composite value is higher than the provincial value and national value, or the district/city value is greater than the national importance and higher than the rural value.

Table-1. Scope and Variables of Educational Thematic of Nusa Tenggara Timur Province.

Category	Component	Indicator
Availability	Students	Ratio of elementary students/classes; The ratio of junior high school students; The ratio of high school students; Elementary/class room ratio; Middle/class room ratio; High School class/class ratio; Ratio of elementary students/teachers; The ratio of junior high school students / teachers; The ratio of high school students/teachers.
	Teacher	Percentage of elementary school teacher qualifications; Teacher's percentage of junior high school qualifications; Percentage of high school teachers qualified.
	School	Percentage of damage to elementary school classrooms; Percentage of damage to middle school classrooms; Percentage of damage to high school classrooms.
Accessibility	Distance Service	Average distance between elementary/middle/high school
	Infrastructure	Paved Village
Affordability	Costs	Average family expenses for education per month.
Sustainability	Education Services	Participation rates for elementary/middle/high school students
Stability	Disaster Risk	Indonesia district / city Disaster Risk Index.

Source: RIMoPPNB (2017).

4. DISCUSSION

4.1. Economic Development of Nusa Tenggara Timur

(RIMoPPNB, 2017; Bank Indonesia, 2018)

The Gross Regional Domestic Product (PRDB) of East Nusa Tenggara Province in 2017 grew by 5.16%, slowing slightly compared to the growth in 2016 which was 5.17%, although it was still higher than the national growth of 5.07%. Growth is mainly sustained by consumption, consisting of household consumption, household and non-profit institutions, all of which have increased, as well as the formation of gross fixed capital/investment. Factors that caused a slowdown in economic growth included net imports between regions and imports that grew, resulting in a reduction in the GDP of NTT Province. Net imports between regions and imports increased by 4.39% and 314.99% respectively compared to 2016 of -0.28% and 5.91%.

Based on the main sectors contributing to economic growth, the agriculture, forestry and fisheries sector in 2017 was able to progressively grow by 4.88%, better than last year's 2.37% or the highest in the past seven years, along with the opening of new agricultural land and increasing continuous irrigation networks. Also, the source of modern economic growth, namely the sector of providing accommodation and drinking food (tourism) was able to provide high growth above 10% in the last two years, namely 14.46% in 2016 and 13.59% in 2017. The focus of the development of the primary economic sector is agriculture, and sources of new growth such as tourism continue to be encouraged to advance the economy of NTT Province further.

The percentage of poor people in NTT in September 2017 reached 21.38 percent or above the national level of 10.12 percent. The percentage of poor people in NTT Province is ranked the third highest in Indonesia, under the Papua Province (27.76 percent) and West Papua Province (23.12 percent). In terms of expenditure inequality, the Gini ratio in NTT in 2017 was recorded at 0.36 or tended to be at the level of mean difference. This figure is better than the national value of 0.39. This indicates that public expenditure in NTT tends to be more evenly distributed compared to the national level.

Nationally, the poverty line of NTT Province is ranked 28th after NTB Province. Provinces with the highest poverty line are the Bangka Belitung Islands Province of Rp 607,927. While the area of South Sulawesi has the lowest GK of Rp. 294,358 which indicates a low level of prices in the Province. The condition of poverty in NTT

Province generally shows a declining trend. However, the percentage of debt is still above 20 percent, so the problem of poverty still needs attention.

Some efforts have been made by the Regional Central Government to improve the welfare of the community, one of which is through social programs, such as the Independent Village of Red Wine, the Hope Family Program, Literature, and other programs. However, the implementation of the program is still ineffective due to the weak synergy between government levels. The presence of new investments in NTT such as the development of various national strategic projects, the growth of the sugar industry in Sumba, the development of the retail sector in the city of Kupang and tourism in Labuan Bajo are expected to improve the welfare of the community through the opening of existing employment opportunities. Also, the Village Fund program that has been disbursed starting in 2015 is also expected to be able to encourage the economy of the community in the rural area. Improving the quality of human resources is the most important thing to support this through formal education and skills training.

The value of the NTT Human Development Index (IPM) ranks third lowest nationally after Papua and West Papua. NTT's HDI growth is also only 0.73% lower than the national one which is 0.91%. The high HDI growth just occurred in Southwest Sumba Regency which grew 5.87%, but also a significant decline in HDI in Central Sumba Regency to 3.32%. The low HDI is mainly due to the per capita expenditure indicator which is only 7.12 million and is the lowest per capita expenditure in Indonesia. The average education rating in NTT is the fourth lowest in Indonesia, and life expectancy is also the sixth lowest compared to other provinces. The poverty rate shows that as the third most impoverished province in Indonesia with a population of poor reaching 22.01% of the people, it is far higher than the nation which is 10.7%.

When viewed from the structure of work in NTT, it is seen that all age groups are dominated by informal employment. 79% of workers are in rural areas, and more than 50% are elementary school education and are concentrated in the countryside. NTT also has the third lowest average education worker after Papua and Central Java Province. 56.2% of workers have only an elementary school education background, slightly better than Papua which amounted to 57.2%. Based on the economic sector, 53.3% of workers work in the agricultural industry. This makes NTT province the province with the second largest ratio of farmer workers after Papua Province. The economic sectors with the next largest workers were the trade sector (10.0%), the processing industry (7.4%), education services (6.6%) and government administration (6.2%).

Based on the status of the main employment, most workers in NTT are unpaid family workers and temporary workers, most of whom work in the agricultural and processing industries. As many as 393 thousand or 20.75% of workers are unpaid family workers, and 30.42% or 576,000 workers are temporary workers. This shows the low quality of agricultural workers or the character of the NTT processing industry which is still in the form of home industry, in contrast to industries in Java which began to shift to medium and large industries. The average salary earned per hour also shows that 84.1% of workers in NTT only get a salary of less than 10 thousand per hour or 85.5% of the population gets a salary of less than 1.5 million per month, lower than the NTT UMP 2017 which is Rp. 1,525,000. The workers with the largest income are formal workers with employee status.

Thus it can be concluded that although the open unemployment rate in NTT is relatively low, the main problem of employment in NTT is the low quality of work, including too many informal sector jobs and main jobs in the form of unpaid family workers or precarious workers, with most workers, get a low salary or even no income. Therefore, it is expected that the government in the future can focus more on increasing labor capacity and creating formal employment. This can be done either by creating labor-intensive projects as do village funds, or facilitating investment permits so that industrialization can develop in NTT. The inefficiency of the agricultural production

process can be done by shifting agricultural workers to other formal sectors and implementing a mechanization system to reduce production costs, accelerate and increase production.

Since village funds were first disbursed in 2015, nationally have contributed to various village development projects. Realization of village funds until the first phase of 2017, the government has succeeded in building 121,709 km of village roads, 1,960 km of bridges, 41,739 irrigation channels, 13,973 units of Posyandu, 21,357 Early Childhood Education (PAUD), 82,356 MCK units, and so on. In its journey, village funds experienced various improvements. At the end of 2017, the Government has set a new scheme for managing village funds for the 2018 fiscal year, namely by using the Cash for Work or Cash for Work scheme. This scheme is directed, so that village funds are managed in a self-managed manner by involving the community in various village projects, both for the procurement of goods and services and for their workforce.

Village funds continue to experience significant increases from year to year. In this case, the Province of East Nusa Tenggara (NTT) in the first year period of the village fund program was implemented, NTT Province received funding of 812.8 billion rupiahs, then increased in the second year period by 1.8 trillion rupiahs, increasing again by 2, 3 trillion rupiahs in the third year period, and rose again in the fourth period to become 2.5 trillion rupiahs for 21 regencies/cities and 2,996 villages throughout NTT Province. The largest budget allocation for village funds in 2015 was 73.6 billion rupiahs, obtained by Timor Tengah Selatan District (TTS). Then it increased by 165.1 billion rupiahs in 2016, growing again in 2017 to 210.7 billion rupiahs, and finally, per Budget Year 2018 the allocation of village funds to TTS regency increased again to as much as 233.6 billion rupiahs for 266 villages.

The smallest allocation of funds is given to Sabu Raijua Regency because the regency only has 57 villages per 2018. In 2018 Sabu Raijua Regency received an allocation of village funds of 63.4 billion rupiahs, an increase of 14.1 billion rupiahs from the previous period. Increasing the number of village fund allocations each year is a manifestation of the government's commitment to developing village infrastructures such as village roads, irrigation, sanitation, reservoirs, and other village infrastructure projects. The size of the village fund allocation for each regency is caused by several things, such as the number of villages in each district, the level of absorption of the budget, and the allocation of formulas for each community calculated by considering the population, poverty rate, geographical area and geographical difficulty of each village. One of the most influencing changes in the amount of village fund allocation each year is the level of absorption of the budget. If there are more than 30% (thirty per hundred) Village Funds Remaining Calculation (SiLPA) in the current budget year, the Regent / Mayor imposes a sanction in the form of budget cuts in the next fiscal year in the amount of Village Fund SiLPA for the current year.

In the new scheme regulation, 30% of the total village funds are used to pay wages for workers involved in development programs in each village. This means, from the 2.5 trillion rupiahs of village funds obtained by NTT province in 2018, a total of 760 billion rupiahs will be allocated as wages. If in 2017 the allocation for salaries is only 20% of the total village funds of 2.3 trillion rupiahs, which is 472 billion rupiahs, then in FY 2018 along with the increasing allocation of village funds, workers' wages or labor expenditure will increase by 288.7 billion rupiahs.

The increase in funds flowing as people's income has the potential to increase the GRDP of NTT Province up to 0.29% from the GDP projection of 2018 which is around 100 trillion rupiahs. In terms of employment, if each village has four priority development programs, there will be 11,984 jobs. Assuming that the workforce per project is needed by 20 people with 25% of employees always participating in the project, then the potential of workers to be absorbed from all village fund programs held is as many as 194,740 people.

The increase in wages for these workers may only be responded to differently, namely the potential for a decline in assets due to the transition from raw material purchases to wage costs. However, the positive impact that

can be felt is that there is a labor-intensive scheme besides being able to increase people's purchasing power, it can also increase the sense of ownership of the project, so that the project is from, for and by the community, the people's desire to make good projects are getting bigger, so the potential for corruption and deterioration in quality will also be reduced because people realize that the plan is for themselves. Thus, the potential for asset reduction does not occur because of the potential decline in fraud.

4.2. Educational Problems at the Border of Nusa Tenggara Timur

The State Border Area is a region of the country that is geographically directly adjacent to a neighboring country, on land, in the ocean, or in the air, whose boundaries are determined according to the functions of state defense & security, economic growth, and public welfare, and environmental sustainability. NTT Province is a sub-district and district/city area that is geographically and demographically bordered by Timor Leste and Australia.

The scope of the border area of East Nusa Tenggara Province is the land border, the border of the sea and the outer islands. The district includes (NTT Regional Government, 2018):

- The land border area with Timor Leste administratively covers 4 Regencies namely Kupang Regency, Timor Tengah Utara Regency, Belu Regency, Malaka Regency. The land boundary of the border area in the eastern segment is located in Belu Regency, with a length of the line of 149.1 km. The border area in Belu Regency covers District of Tasifeto Barat, Tasifeto Timur, Lasiolat, Raihat, Lamaknen, Lamaknen Selatan, Nanaet Dubesi and Kobalima Timur. Whereas Malaka District includes Kobalima Timur, Malaka Barat, Kobalima, Malaka Tengah, Wewiku, Malaka Timur, Weliman, Rinhat, Botin Leolele. The land border boundary in the western segment is located in Kupang Regency, with a length of the line of 15 km and in Timor Tengah Utara District, with a borderline of 104.7 km. The border area in Kupang Regency includes the District of Amfoang Timur, and the border districts in Timor Tengah Utara District, including the Sub-Districts of Bikomi Nilulat, Bikomi Utara, Bikomi Tengah, Naibenu, Insana Utara, Kefamenanu, Miomaffo Barat, Mutis, dan Musi (BNPP, 2015).
- Sea border areas in NTT region with Timor Leste administratively covering 12 Regencies, namely Kupang Regency, Belu Regency, Timor Tengah Utara (TTU) Regency, Malaka Regency, Alor Regency, Timor Tengah Selatan (TTS), Sumba Timur Regency, Sumba Tengah Regency, Sumba Barat Regency, Sumba Barat Daya District, Rote District, and Sabu Raijua District. Kupang Regency, Alor, Belu and Timor Tengah Utara with Timor Leste and Rote Ndao District which borders Australia (NTTRG, 2018).
- Whereas the outermost islands are Alor Island in Alor Regency and Batek Island in Kupang Regency which borders the country of Timor Leste; Ndana Island in Rote Ndao Regency borders Australia; Dana Island in Sabu Raijua Regency and Mangkudu Island in Sumba Timur Regency are facing the Indonesian Ocean (President, 2005; Yusuf and Pohan, 2013).

Other strategic areas are in the form of Border Strategic Support Areas as supporting National Strategic Areas land and sea borders with Timor Leste and Australia, consisting of NTTRG (2018):

- Baing area in East Sumba Regency, to support Mengkudu Island;
- Ndana area in Rote Ndao District, as supporting Ndana Island; Dana Area in Sabu Raijua Regency, as a supporter of Dana Island; The Batek area in Kupang Regency, as support for Batek Island;
- Ponu area in Timor Tengah Utara Regency as a support for the border area with Oecusi District;
- Amfoang area in Kupang Regency as a support for the border area with Oecusi District; and
- Motaain and Motomasin areas in Belu Regency as a support for the Atambua border area.

The condition of the current border region, in general, has not received equal attention. This can be seen by the lack of infrastructure available in the border region. This has caused many problems such as changes in regional boundaries, smuggling of goods and services and transnational crimes. The general conditions of the economy in the border region include the following (Firkan, 2010):

- Its location is relatively isolated (remote) with a low level of accessibility.
- Low levels of education and public health.
- Low levels of socio-economic welfare of the border communities (the number of poor people and disadvantaged villages).
- The scarcity of information about government and community development in the border area (blank spot).

Education is one of the fundamental development fields because it is related to the preparation of quality human resource development. Training, development is directed to expand opportunities to obtain excellent and equitable education for all levels of society at every level of education. Also, the development of education also needs to be directed at improving the quality and relevance of training with the development of the business world (Firkan, 2010).

The growth of education services in East Nusa Tenggara has increased as investment in education by the government, which was mostly carried out in 2016 such as the addition of the number of classrooms in upper secondary schools, vocational schools, and universities/polytechnics and the construction of center courses was completed in December 2016 and began to be used in 2017. Also, there was an increase in the number of classrooms and laboratories at universities/polytechnics in 2017. The main sectors experiencing acceleration were government administration and education services. However, the average education rating in NTT is the fourth lowest in Indonesia (RIMoPPNB, 2017).

Table-2. Result of Thematic Analysis of Education in Nusa Tenggara Timur Border Region.

No	Regency	Status1	Status2	Status3	Status4	Status 5
1.	Timor Tengah Selatan	Red	Green	Blue	Green	Red
2.	Sumba Barat Daya	Red	Red	Blue	Red	Green
3.	Sumba Barat	Red	Blue	Green	Green	Green
4.	Malaka	Green	Blue	Blue	Red	No data
5.	Sumba Timur	Green	Red	Blue	Red	Red
6.	Alor	Green	Green	Blue	Red	Red
7.	Rote Ndao	Green	Green	Blue	Green	Green
8.	Kupang	Green	Blue	Red	Blue	Green
9.	Timor Tengah Utara	Green	Blue	Blue	Blue	Green
10.	Belu	Blue	Green	Blue	Blue	Red
11.	Sabu Raijua	Blue	Blue	Blue	Red	Green
12.	Sumba Tengah	Blue	Green	Blue	Blue	Green

Source: RIMoPPNB (2017).

Notes: Status1: Availability; Status2: Accessibility; Status3: Affordability; Status4: Applicability; Status5: Stability Red: Low Status, Priority 1; Green: Medium Status, Priority 2; Blue: High Status, Priority 3.

Table-3. Result of Analysis the Main Thematic Problems of Education in Nusa Tenggara Timur Border Region

Categories	Main Problems	Program	Activities	Implementing	
1.	Availability	<ul style="list-style-type: none"> - Limited number of classrooms in several districts/cities for all elementary/MI, junior high /MTs and high school/MA education levels for all study groups; - The level of damage to classrooms is relatively high at all levels of education at SD / MI, SMP / MTs and SMA / MA; - The ratio of students/teachers is still relatively insufficient at all levels of education at SD / MI, SMP/MTs and SMA / MA in several districts/cities; - The qualifications of the minimum undergraduate teachers are relatively sufficient, for all levels of education at SD / MI, SMP / MTs and SMA / MA. 	<ul style="list-style-type: none"> - Primary and secondary education; - Improving the quality of teachers and education staff. - Construction of new school units (SD / MI, SMP / MTs, SMA / MA). 	<ul style="list-style-type: none"> - Construction of New Classrooms (SD / MI, SMP / MTs, SMA / MA); - Rehabilitation of study rooms; - School renovation; - Recruitment of Government Employees (PNS) teachers; - Providing scholarships for teachers; - Teacher certification; - Increasing teacher competency according to their fields. - Ministry of Education and Culture. 	<ul style="list-style-type: none"> - Ministry of Religion; - Ministry of PAN-RB; - Local government.
2.	Accessibility	<ul style="list-style-type: none"> - Distance from village to school, in some districts/cities is still relatively far away. - Lack of paved village road conditions 	<ul style="list-style-type: none"> - Primary and secondary education; - Construction of roads and bridges; - Rehabilitation/maintenance of roads and bridges; - Management and implementation of land transportation. 	<ul style="list-style-type: none"> - Development of new school units (SD / MI, SMP / MTs, SMA / MA) in each village; - Construction and repair of village roads 	<ul style="list-style-type: none"> - Ministry of Education and Culture; - Ministry of Religion; - Ministry of Transportation - Local government.
3.	Affordability	<p>The average cost of education, is relatively affordable at all levels of education at SD / MI, SMP / MTs and SMA / MA, although in some districts/cities the cost of education is still relatively high.</p>	<p>Primary and secondary education</p>	<ul style="list-style-type: none"> - Providing educational assistance through the Indonesia Smart Card (KIP); - Provision of School Operational Assistance (BOS). 	<ul style="list-style-type: none"> - Ministry of Education and Culture; - Ministry of Religion; - Local government.
4.	Sustainability	<p>There is still a high number of school-age students who must attend school in several districts/cities, for all elementary/MI, junior high school/MTs and high school / MA education level.</p>	<p>Primary and secondary education</p>	<ul style="list-style-type: none"> - Increasing the proportion of primary and secondary education budgets; - Improving education services 	<ul style="list-style-type: none"> - Ministry of Education and Culture; - Ministry of Religion; - Local government.
5.	Stability	<p>The disaster risk index in several districts/cities is relatively high.</p>	<p>Disaster mitigation</p>	<ul style="list-style-type: none"> - Disaster risk prevention and reduction; - Community empowerment in disaster preparedness; - Preparation of preparedness and 	<p>National Disaster Management Agency (BNPb)</p>

mitigation plans in the event of a disaster;
- Installation of an early warning system;
- Resilient village formation;
- Increased socialization
- Disaster information (disaster awareness culture);
- Prepare an evacuation route if a disaster occurs.

Source: RIMoPPNB (2017).

The districts included in the borders of NTT Province and the Timor Leste State are Districts of Malacca, Alor, Kupang, Timor Tengah Utara, and Belu. From the [Table 2](#) above, the variables most need to be considered by each district on the border as a priority are:

- Malacca District: sustainability, availability, and stability
- Alor Regency: sustainability, stability, availability, and accessibility
- Kupang Regency: affordability, availability, and stability
- Timor Tengah Utara Regency: availability, and stability
- Belu Regency: stability and accessibility

Of all five variables that must be considered, which is primarily a sustainability problem, namely the willingness of students to continue their education in each generation. Then there was a problem of stability, where border areas in NTT were prone to disasters. Also, what needs to be considered is the availability problem, namely the availability of teachers and school infrastructure and the number of students who continue their education. Also, the issue of affordability arises, especially in Kupang regency, and accessibility issues, especially in Alor Regency and Belu Regency.

From the table above, the main problems can be described and the programs and activities to overcome them, which can be seen in [Table 3](#).

5. CONCLUSION

From the results obtained by districts in the border region and their supporters who need to be given the most attention about this education issue are:

- Districts with the worst conditions as priority 1 are Sumba Barat Daya and Sumba Timur Regencies.
- Districts with better conditions as priority 2 are Timor Tengah Selatan, Alor, and Malaka
- Districts with priority 3 are Rote Ndao District, Timor Tengah Utara, Sumba Tengah, where Sumba Barat, Kupang, and Belu districts also produce better results than other districts.

Districts in the border areas that have better conditions as the third priority are Timor Tengah Utara, Kupang, and Belu Regencies, whereas communities in the border areas as the second priority are Alor and Malacca Districts.

In the development of education in the border areas of NTT, it is necessary to pay attention to several factors that are the top priorities. Internal factors that are related to the effectiveness of the teaching and learning process which are highly dependent on the availability of learning facilities, quality and quantity, teaching methods and management education; and external factors that involve the role of parents, the community and the government that supports the development of quality education.

Problems faced in the education sector that need to be dealt with properly are:

- Facilities and infrastructure: Lack of supporting facilities such as libraries, function rooms, laboratories, and sports rooms; School buildings need to be repaired immediately because most of the conditions are not suitable for use in the teaching and learning process; Lack of books to support the smooth learning process so that students get fewer books as reference material
- Educators: Lack of qualified teachers for each subject; Teacher quality is not sufficient
- Learners: Limited ability of the community to finance their children's education. The level of the economic welfare of the border communities in the interior and the small outermost islands in the funding of their children's education is shallow because the income earned is also low. Whereas on the other hand, teaching requires a high and continuous cost every time. As a result, school-age children are often more empowered by their parents to help their work to make money so that the family economy is improved; and the abilities and skills of students are far from expected. Because of the limited facilities and educators who lack the talent and skill gap
- School management: School management is still not optimal, and Lack of skills and knowledge in managing schools
- Community participation: Lack of optimal involvement of the community in developing a partnership to improve school performance

From the various educational problems that exist in the border area, the programs that can be carried out in priority are:

- Increasing the proportion of primary and secondary education budgets;
- Improving education services
- Disaster risk prevention and reduction, preparation of preparedness and mitigation plans in the event of a disaster, installation of an early warning system, and prepare an evacuation route if an emergency occurs.
- Community empowerment in disaster preparedness, resilient village formation, and increased socialization and disaster information (disaster awareness culture)
- Construction of New Classrooms (SD/MI, SMP/MTs, SMA/MA), school renovation, and rehabilitation of study rooms.
- Recruitment of Government Employees (PNS) teachers, providing scholarships for teachers, increasing teacher competency according to their fields, teacher certification.
- Providing educational assistance through the Indonesia Smart Card (KIP).
- Provision of School Operational Assistance (BOS).
- Development of new school units (SD/MI, SMP/MTs, SMA/MA) in each village;
- Construction and repair of village roads

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