

## POTENTIAL LEADING SECTOR TO DRIVE ECONOMIC GROWTH IN WEST NUSA TENGGARA PROVINCE

### *Sektor Unggulan Potensial Untuk Mendorong Pertumbuhan Ekonomi Di Provinsi Nusa Tenggara Barat*

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#### ABSTRACT

West Nusa Tenggara Province (NTB) has a small economy with a concentration of output to meet needs within its region and has a small proportion of trade outside the NTB region. Leading sectors are needed for faster economic growth. This study aims to describe how the structure of trade and the leading sectors drive economic growth. This research uses the descriptive quantitative method by utilizing interregional input and output data. The results indicate that the output trade structure is mostly traded within the NTB area, and the majority is used for final demand. The sector with the largest output value in NTB is still the agricultural sector. However, based on sectoral linkages, the Electricity and Gas Procurement sector has the greatest capacity to encourage the progress of its upstream and downstream sectors. This means that the sector has the potential to be a leading sector with the highest economic multiplier should this sector be encouraged and continue to be spurred to boost economic growth.

**Keyword:** economic growth, leading sector, West Nusa Tenggara

#### ABSTRAK

Provinsi Nusa Tenggara Barat (NTB) memiliki perekonomian kecil dengan konsentrasi output untuk memenuhi kebutuhan di dalam wilayahnya dan memiliki proporsi perdagangan yang kecil di luar wilayah NTB. Sektor unggulan dibutuhkan untuk pertumbuhan ekonomi yang lebih cepat. Penelitian ini bertujuan

*untuk mendeskripsikan bagaimana struktur perdagangan dan sektor unggulan yang mendorong pertumbuhan ekonomi. Penelitian ini menggunakan metode kuantitatif deskriptif dengan memanfaatkan data input dan output antar daerah. Hasil menunjukkan bahwa struktur perdagangan output sebagian besar diperdagangkan di dalam wilayah NTB dan sebagian besar digunakan untuk permintaan akhir. Sektor dengan nilai output terbesar di NTB masih merupakan sektor pertanian. Namun berdasarkan keterkaitan sektoral, sektor Pengadaan Listrik dan Gas memiliki kemampuan terbesar untuk mendorong kemajuan sektor hulu dan hilirnya. Artinya, sektor tersebut berpotensi sebagai leading sector dengan multiplier ekonomi tertinggi dan hendaknya sektor ini yang didorong dan terus dipacu untuk meningkatkan pertumbuhan ekonomi.*

**Kata Kunci:** *pertumbuhan ekonomi, sektor unggulan, Nusa Tenggara Barat*

## INTRODUCTION

Economic growth is a rise in the volume of products and services produced during a specific period. The value of a nation's national income reflects the outcomes of producing various products and services. Increased output per person, greater production of products and services, and changes in the economic structure are all signs of economic progress. Indonesia's economy managed to grow impressively in the second quarter of 2022 with 5.44% (year on year) and recorded better than other nations that experienced an economic slowdown in Q2-2022 such as the United States, Germany, France, Spain, South Korea, and China. However, it is still overshadowed by the rising risk of global uncertainty. Improvements in a number of sectors have helped Indonesia's economy thrive. On the expenditure front, household consumption increased significantly (5.51%), which was helped by solid export results (19.74%). From a sectoral standpoint, the recovery of people's mobility due to the practical and controlled management of the pandemic is consistent with transportation, warehousing with the biggest growth (21.27%), and food and beverage accommodations (9.76%).

NTB is a province with two main islands (Lombok Island and Sumbawa Island), which are small in area and economic scale. Economically, the total output that NTB can produce is only 208.96 trillion rupiah. The total output of NTB is still minimal compared to Indonesia's total national output of 23,704.79 trillion rupiah. The proportion of NTB's output contribution nationally is only 0.88%. The output data for NTB and national can be illustrated in Figure 1.

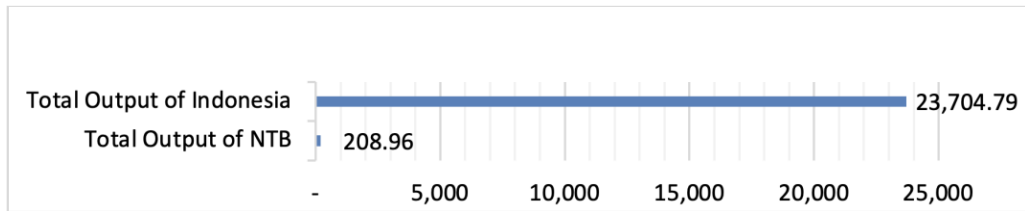


Figure 1.

Comparison Between Total Output of NTB Province and Indonesia (Trillion IDR)

Source: Badan Pusat Statistik Provinsi Nusa Tenggara Barat, 2021

In addition, most of the output produced by NTB is still used to meet needs within the region itself. Still, some of the output is exported throughout Indonesia and abroad. The description of the condition of the output distribution of NTB can be seen in the following Figure 2. Most of NTB's output is used to meet needs within NTB itself. A total of 47.37% is used for the needs of final demand in NTB, and as much as 28.15% to meet the needs of intermediate demand within the Province. Meanwhile, only a tiny portion was exported, consisting of exports for intermediate demand to other provinces in Indonesia, amounting to 6.34%, final demand to other provinces, amounting to 7.11%, and exports to foreign countries, amounting to 11.03%.

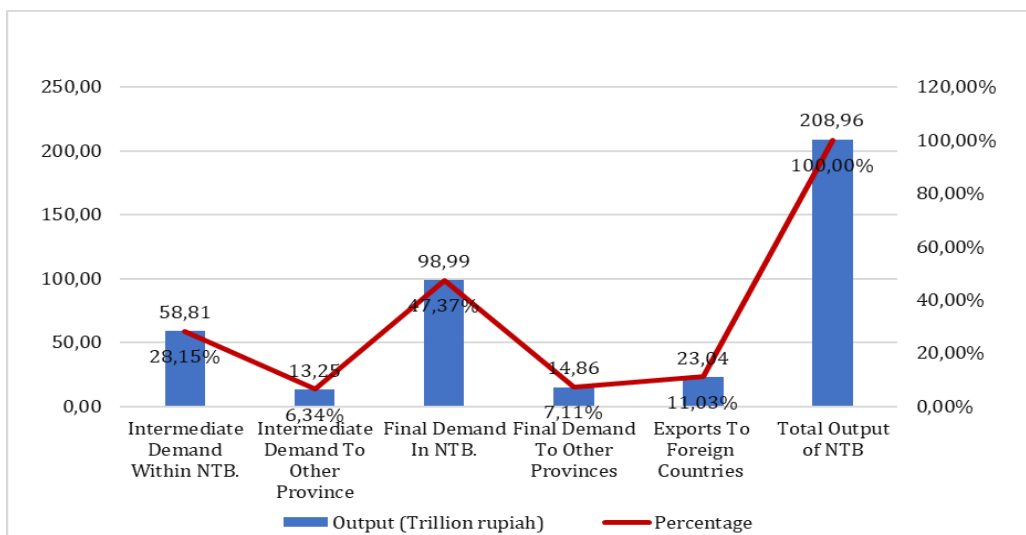


Figure 2.

Output Distribution of NTB Province

Source: Badan Pusat Statistik Provinsi Nusa Tenggara Barat, 2021

The economy of West Nusa Tenggara province still needs to grow, with a proportion of total output only 0.88% of the total national output. In addition to being a region with a small economy, the majority of the output produced is used to fulfill the region's needs. Exports out of the Province of NTB are still below 25%, including exports to other regions in Indonesia and exports to foreign countries. In fact, several research results show that exports play an important role in driving economic growth. International trade reflects economic relations among individual economies and represents the country's foreign relations, which include trade exchange as part of the production. In a simplified sense of equilibrium, it is usually assumed that the object of this exchange is a part of production, which exceeds domestic consumer demand and is thus an object of export (Jeníček & Krepl, 2018). By increasing exports, it can encourage increased economic growth and welfare.

Several studies show that exports can encourage economic growth and prosperity. Research by Syzdykova et al. (2019), Hemzawi and Umutoni (2021), and Asbiantari et al. (2016) show that the case in Kazakhstan reveals an increase in exports goes to the gross domestic product (GDP). An increase in exports of 1% causes an increase in GDP of 0.38%. Farahane and Heshmati (2021) also confirm with the results of his research that trade can act as an engine that drives economic growth. These results illustrate that international trade through increased exports can be a better solution for SADC countries to accelerate, stimulate, and promote economic growth. Research shows that exports affect Rwanda's economic growth, with a one percent increase in export value and a 0.05% increase in GDP. Some research shows that the independent variable in international trade significantly influences welfare (Rinaldi et al., 2017; Muslikhati & Hakim, 2019; Triyawan & Novitasari, 2020).

In August 2022, the export value was US\$ 219.59 million, a 39.95% decline from July 2022. It experienced an increase of 80.87% when compared to August 2021. South Korea received 48.48% of the total export value in August 2022, followed by China (31.67) and Japan (17.03). Non-Oil and Gas Mining Products were the largest export category for the NTB Province in August 2022, accounting for US\$ 212,764,147 (96.90%), followed by Fish and Shrimp (\$3,920,405), Fruits (\$1,098,052), Processed Meat and Fish (\$572,853), and Salt, Sulfur, and Lime (\$381,470). (0.17%). August 2022 had an import value of US\$17.95 million. Thus, imports have increased by 41.10% when compared to the \$12.72 million in imports in July 2022. During August 2022, imports originated in Japan (47.97%), the United States (19.29%), the Philippines (17.90%), Australia (8.92%), and Malaysia (5.60%). Rubber and Rubber Products (48.03%), Explosives (17.20%), Machinery/Aircraft Mechanics (15.07%), Automobiles and Their Components (6.64%), and Mineral Fuels were the import commodity groupings with the highest value in August 2022. (5.60%) (Badan Pusat Statistik, 2022).

There are a number of variations of input-output analysis at the regional level, and input-output studies with a regional orientation can be classified in several ways. One of the main differences is between the interregional (or multiregional) model and the regional model. In the first model, the single model covers more than one region, while the regional models are similar to the national models except that they cover a smaller geographic area. This section will discuss only interregional or multiregional varieties models (Miernyk, 2020; Hewings, 2000; Ciaschini, 1982).

NTB Province, with a minor economic condition, needs to encourage exports to create better economic growth. It is necessary to look for economic sectors that can become the leading export sectors driving economic growth. Encouraging progress in leading economic sectors will accelerate economic progress. Paying attention to the region's leading sectors will spur faster economic growth in the Province of NTB. Therefore, it is necessary to conduct research to find out this.

This study seeks to examine the export structure of the Province of West Nusa Tenggara and analyze linkages. From the various descriptions of the study, it will be possible to determine the potential leading sectors to drive economic growth in the Province.

## RESEARCH METHOD

This research uses a descriptive method. This descriptive study will explain the economic structure of the Province of West Nusa Tenggara and analyze linkages that will describe the leading sectors driving economic growth in the Province of West Nusa Tenggara.

The data used for this research is secondary data in the form of Inter-Regional Input Output (IRIO) data issued by the Central Statistics Agency. The IRIO table used is the Indonesian Inter-Regional Input-Output Table of Domestic Transactions based on Producer Prices According to 34 Provinces and 17 Business Fields in 2016. IRIO is one of the measurements and modeling that describes the inter-sector linkages between regions (Sant'Anna & Young, 2007; Hirawan & Nurkholis, 2008). IRIO is an extension of the input-output table, which only looks at one country/region so that IRIO can see the interrelationships between regions (Beylot et al., 2020). IRIO analysis can describe the economic structure between regions, relations between regions, and their dependencies (Kustaman et al., 2021).

The inter-regional input-output model provides several benefits over the one-region IO model. With IRIO able to describe the impact of certain regional economic activities better. Second, the IRIO model can be a tool to see the relationship between income and consumption groups. Third, the IRIO model provides a better framework for making economic and

employment forecasts for regions than the input-output model (Phong et al., 2019).

The use of IRIO in this study is to see the economic structure in the form of output distribution in the Province of West Nusa Tenggara and analysis of linkages. The linkage analysis in this study looks at how the forward linkage and backward linkage of NTB outputs to other regions in Indonesia. Input-output analysis is one of the analyses that can provide a comprehensive picture of the existence of production activity from each available production unit. It is not uncommon for each output of an item to become input for other goods, so the input-output method, in other words, is said to be able to see the interrelationships between the sectors in it (Setiawan, 2013).

Input-output and IRIO tables basically consist of 3 quadrants. Quadrant I will contain intermediate transaction data or intermediate demands. Intermediate transactions are output transactions of a sector which will later be used again in the production process. Quadrant II contains the final demand data. Final demand consists of several components: household consumption, consumption of non-profit institutions (LNPRIT), government consumption, gross fixed capital formation, changes in inventory, and exports of goods and services. The third quadrant contains data on primary input components or added value.

The procedure for carrying out an analysis of the structure of the output distribution by looking at a number of  $n$  sectors in which sector  $i$  distributes output  $x_i$  during one period is sorted based on intermediate demand ( $z_{ij}$ ) and final demand ( $f_i$ ) (Fadlli, 2022). So that it can be formulated as follows:

$$x_i = \sum_{j=1}^n z_{ij} + f_i$$

Note:

$x_i$  = Output value of sector  $i$   
 $f_i$  = Final demand  
 $z_i$  = Intermediate demand

Analysis of linkages between sectors is divided into backward linkages and forward linkages. Both linkages are analytical tools used to determine the degree of linkage of a sector to other sectors in the economy. Backward linkage is an analytical tool to determine the degree of linkage of a sector to other sectors that contribute input to it. Forward linkage is an analytical tool determining the degree of linkage between sectors that produce output that can be used as input for other sectors. The backward linkage formula of a sector can be stated as follows (Soleh & Darwanto, 2012):

$$L_{bj} = \frac{X_{ij} \sum_{i=1}^j X_{ij}}{X_j} = \sum_{i=1}^j a_{ij}$$

Note:

- L<sub>bj</sub> : Backward linkage index  
 X<sub>j</sub> : The value of the jth product  
 X<sub>ij</sub> : Input value " i " provided to produce  
 " j "  
 a<sub>ij</sub> : Leontief input-output coefficient

The second type of linkage between sectors in the economy is forward linkage. The forward linkage is obtained from the backward linkage inverse, the mathematical formulation of which is:

$$L_{dj} = \sum_i^j a_{ij}^{-1}$$

Note:

- L<sub>dj</sub> : Forward linkage index  
 a<sub>ij</sub> : Leontief input-output coefficient

## RESULT AND DISCUSSION

### General Description of NTB Economic Growth

Development is a process of planned change and a series of continuous activities that are sustainable and gradual toward a better level. Success National development is a reflection of the success of the development area. Regional development refers to equity and improvement of people's welfare. Regional economic development is a process in which the government region and its people manage existing resources and form a pattern of partnership between local government and the sector private sector to create new and stimulating jobs and economic development in the region. The main problem in regional development lies in the emphasis on development policies based on regional characteristics concerned with using the potential of human resources, institutions, and physical resources locally.

Long-term economic problems are caused by economic expansion. Economic growth is a measure of how well an economy has progressed from one era to the next. Due to the constant increase in quantity and quality of production elements, a nation's capacity to generate products and services will rise over time. Regardless of the effects on society, economic expansion aims to raise the GDP or GNP. Economic development, on the other hand, entails efforts to raise GDP or GNP together with improvements in the population's standard of living. An increase in per capita income indicates economic growth. The GDP (Gross Domestic Product), which is the economic figure that receives the most attention since it is thought to be the

best single measure of people's welfare and can be used as one of the benchmarks for a nation's progress. The fundamental reason is that GDP can measure two things at once: the total income of everyone in the economy and the total amount of money spent by the government to purchase products and services made by the economy.

According to the business sector, the Gross Domestic Product is divided into nine sectors, whereas the macroeconomic divisions are primary, secondary, and tertiary sectors. Agriculture, mining, and quarrying are considered the primary sectors because their output is still largely dependent on nature and at a fundamental level. The secondary sector of the economy, which includes the manufacturing, electricity, gas, and drinking water sectors as well as the construction sector, is made up of economic sectors whose output originates from the primary sector. While other industries, such as trade, lodging and food service, transportation and communications, banking and other financial institutions, and services, are categorized as part of the tertiary sector (Prihatin, 1999; Satria et al., 2015; Wabomba et al., 2016; Muhertenti et al., 2022).

According to the Gross Regional Domestic Product (GRDP), West Nusa Tenggara's economy had a third-quarter 2021 GDP of IDR 35.75 trillion at current prices and IDR 24.33 trillion at constant 2010 prices. The economy of West Nusa Tenggara expanded by 0.50% in quarter III-2021 compared to quarter II-2021 (q- to-q). The Processing Industries Business Field saw the highest production rise, at 46.53%. The Gross Fixed Capital Formation Component (PMTB), which represents expenditures, saw the highest growth of 8.60%. The GDP of West Nusa Tenggara expanded by 2.42% in the third quarter of 2021 over the third quarter of 2020. (y-on-y). The Construction Business Field saw the most significant production growth (14.82%). The Foreign Export Component saw the biggest expenditure gain, increasing by 83.96 percent. Central Bank of Indonesia estimates that in 2023 the NTB economy will grow in the range of 4.8-5.6 percent (yoy). The inflation rate has the potential to return to the national target range. "However, the challenge for the economy in NTB is how we can maintain the acceleration of economic recovery amidst the high risk of inflation and the complexity of global economic challenges. A high-potential and high-added-value business sector's contribution to GDP growth is important (Ciptawaty et al., 2020).

The economy of West Nusa Tenggara grew by 2.01% between the first and third quarters of 2021 and the first and third quarters of 2020. (c-to-c). The Construction Business Sector experienced a 9.80 % gain on the production side. While all components of the spending increased, the Foreign Export Component's growth rate of 101.56 % was the greatest. In conclusion, West Nusa Tenggara (NTB) Province's economy grew by 7.76% (year on year) in the first quarter of 2022, which is an improvement over the



same period last year by 3.16% (year on year). On the expenditure side, growth was primarily fueled by increases in domestic consumption, government consumption, and foreign exports, which are in line with the rise in copper exports. LU's success fueled growth in the Business Fields. Organizing international events, easing PPKM, and increasing agricultural production are all priorities for the LUs in agriculture, mining, and transportation. The first quarter of 2022 saw an uptick in inflationary pressure in tandem with improving economic circumstances. In the initial quarter, the NTB Province will see inflation of 2.49% in 2022. (year on year). Next, areas related to financial stability are primarily well-maintained, and metrics for employment and welfare also indicate performance growth (Gumanti et al., 2022; Irviani et al., 2017).

### **Potential Leading Sector To Drive Economic Growth In West Nusa Tenggara Province**

The Leading Sector is a base sector that is anticipated to become the main contributor to and competitive leader in regional economic growth. The base sector is anticipated to encourage the expansion of other industries, making it a valuable tool for accelerating economic growth. When multi-sector and development actors are involved in regional economic development, coordination and collaboration between all parties is necessary. The development of facilities and infrastructure, investments in and access to financial resources, environmental policies, the provision of essential services (such as education and health care), and the development of human resources are all responsibilities more fully transferred to local governments. The importance of development policies based on endogenous development using local institutional, physical, and human resource potentials is a crucial problem in regional development (Arsyad, 1999).

Sjafrizal (2018) asserts that identifying the area's dominant sector should involve more direct policies and activities developed in accordance with regional comparisons of excellence. Sectors with leading categories must receive development priority to accelerate growth and structural transformation. This is due to the prime sector already having a market outside the region, capable of meeting consumption within the region, which means it can contribute to the economy area and grow fast. Remember budget availability is not unlimited, then priority can be done on leading sectors. The developing sector needs to be directed at market expansion, considering that it has rapid growth but has yet to contribute to the regional economy. The sector is moving forward but is depressed to grow with increased production because they already have an export market.

This section discusses two parts: output distribution structure and sectoral output linkage. The distribution of output using interregional input-

output is allocated for intermediate and final demand. In this paper, the allocation will be divided into three uses, including intermediate demand, final demand in Indonesia, and export to other countries. In sectoral linkage, forward and backward linkage will be discussed, including direct and indirect impact.

### Output Distribution Structure

The output distribution structure produced by the Province of West Nusa Tenggara can be shown in the Table 1.

Table 1. Output Distribution Structure (Million IDR)

Sectors	Intermediate demand		Final Demand in Indonesia		Export to other countries	Total Output
	Inside of NTB	Outside of NTB	Inside of NTB	Outside of NTB		
A	15,301,608.00	4,204,917.35	8,834,942.25	5,501,275.69	100,022.02	33,942,765.20
B	4,115,453.00	1,929,405.88	1,477,198.87	27,799.80	21,297,447.00	28,847,304.84
C	5,812,567.00	1,800,764.42	12,592,069.80	3,095,792.28	108,524.46	23,409,718.16
D	4,900,032.00	96,281.57	703,312.16	14,150.62	373.64	5,714,150.10
E	37,367.50	44,166.84	150,672.68	79,825.03	18.45	312,050.49
F	2,306,214.00	390.99	24,177,865.70	44.93	1,985.06	26,486,501.11
G	6,958,724.00	1,243,634.89	8,811,585.47	1,139,548.15	28,836.95	18,182,329.82
H	7,549,538.00	2,153,348.96	6,808,061.39	3,201,896.95	291,299.07	20,004,144.01
I	1,914,157.00	961,128.56	4,068,535.14	1,067,696.84	841,593.34	8,853,110.79
J	2,090,272.00	5,173.07	1,222,170.97	4,649.84	105,127.24	3,427,393.53
K	1,820,815.00	664,031.43	1,968,906.32	346,234.08	9,731.71	4,809,718.05
L	1,985,560.00	3,613.21	5,538,077.02	9,835.10	16,469.22	7,553,554.54
MN	2,146,585.00	22,362.02	331,392.14	4,822.29	44,415.73	2,549,577.45
O	642,597.10	0.00	8,794,171.82	0.00	17,921.98	9,454,690.89
P	234,800.60	4,223.63	8,192,232.11	108,293.77	17,878.61	8,557,428.71
Q	169,828.80	7,460.28	2,846,684.91	31,676.90	55,109.47	3,110,760.38
RSTU	825,970.00	113,896.55	2,476,381.21	223,813.64	103,906.74	3,743,968.18
TOTAL	58,812,090.00	13,254,799.65	98,994,259.90	14,857,355.89	23,040,661.00	208,959,166.20
Total		939,866.59			2,700,194.85	

The output produced by NTB is mostly used to meet the needs within the NTB region itself. More than 75% is used to meet local needs. The output is distributed to intermediate demand with a value of IDR 58,812,090 and final demand with a value of IDR 98,994,259.9. The remaining 13.45% is used for exports to other regions in Indonesia, which are used for intermediate demand with a value of IDR 13,254,799.65 and for final demand with a value of IDR 14,857,355.89. 11.03% is used for exports to other countries, with a value of IDR

23,040,661. The characteristic of output in NTB is being used for the majority of consumption, as seen from the use of output mostly for final demand. The output is used for final demand at IDR 2,700,194.85, while it is used for intermediate demand at IDR 939,866.59.

The majority of the output produced by NTB comes from the agricultural sector. With an output of IDR 33,942,765.2, the total output of this sector is the largest in NTB. In addition, the agricultural sector is the largest sector to meet intermediate demand in NTB, IDR 15,301,608. It is the most significant export demand between NTB and out of NTB, with a value of IDR 4,204,917,348. In addition, the agricultural sector is the sector with the largest export for final demand outside NTB with a value of IDR 5,501,275,686. This condition indicates that NTB's economy is highly proportional to the traditional economy.

This fact is also in accordance with other studies. The agricultural sector supports NTB's economy, contributing 24.14%, mining 15.36%, and trade 13.10%. The NTB agricultural sector is the largest contributor to the economy (Kementerian Sekretariat Negara RI, 2017). By sector, in the first quarter of 2017, the agriculture, mining, trade, construction, and transportation sectors dominated NTB's GRDP. These five sectors play a major role in NTB's economic growth. (Soepriyanto, 2017). Based on Location Quotient (LQ) analysis, there are nine basic sectors in NTB Province, namely agriculture, mining and quarrying, wholesale and retail trade, transportation and warehousing, real estate, government administration, education services, health services and social activities, and services other (Purwadinata et al., 2021). Economic systems are interdependent industries and interrelated areas (Miernyk, 2020).

In emerging nations, the agriculture sector is vital to the economy. The agricultural sector plays a variety of roles in economic development, including serving as a food provider, a labor source for other industries, a source of capital for modern economic growth, particularly in its early stages, a source of foreign exchange, and a market for goods made by the industrial sector in urban areas in rural communities. The use of organic farming and healthy farming is one strategy to ensure food price stability. On the downstream side, diversification of derivative goods is one strategy to preserve commodity price stability after harvest because further processing can provide commodities with a longer shelf life and a more appealing selling price. Government measures that prioritize the tourism industry support the trend of rising GRDP during the next five years, in contrast to the findings by Oktaviana and Amalia (2018). Hence, giving the tourism industry priority, not agriculture, would boost economic growth and lessen GRDP's dependence on the mining sector, which is still in decline. This contrasts with the island of Java, where industrial development is

concentrated on developing the top industries to boost economic growth. To ensure that the industry does not fall behind and remains a leader in its field in the future, non- feature industrial development must be increased at the same rate (Irmawati, 2015).

Regency and city development in West Nusa Tenggara Province need help with the economic structure that still relies on the agricultural sector. According to Pramaria (2022), Agribusiness development and investment quality, including regional development agriculture-based, Dam construction Meninting and irrigation canals, operation Bintang Bano Dam, Pandan Duri Dam, Dam Mila, revitalization of Pengga Dam, Mamak Dam, Dam Tiu Leather, Dam Sumi, Dam Pelaparado and irrigation canals, food estate development, shrimp estate, Independent Integrated City based agriculture, drip irrigation technology, cultivation fisheries through ponds, fishery investment sea and pearls, artificial insemination of cattle home-based business scale, cattle ranch development poultry and utilization of forest products instead wood. The agricultural region of West Nusa Tenggara Province can create a wide range of agricultural products. Agriculture is one of the economic areas that plays a significant role in the Province of West Nusa Tenggara. The agricultural industry has much potential for natural resources. The large agricultural acreage in Nusa Province's west-southwest can significantly boost the nation's food supplies.

The agricultural region of West Nusa Tenggara Province can create a wide range of agricultural products. Agriculture is one of the economic areas that is significant for the Province of West Nusa Tenggara.

### **Analysis of Forward and Background Linkages**

Economic linkage describes the relationship between the organization of a region and its surroundings and externalities. Agglomeration is seen as an important determining factor in the concentration geography of economic activity in urban areas. Intrasectoral links (links between companies in the same sector) and linkages between sectors are a way to see the externality of agglomeration, both triggered by inputs (suppliers) and output (customers). The output produced by an area will not only impact that area. The economy between regions and between sectors can be interrelated. Beyond having an impact on internal output generally In the economy, the connections between sectors will also impact the number of employees needed (labor linkage effect) and the amount of money made (income link effect). Due to the need to produce output, the industry demands labor, and these activities will provide the workforce with additional money. Consequently, the interdependence of the many economic sectors will impact both the volume of employment and income within each sector and the economy as a whole. On this occasion, the

forward linkage and backward linkage will be explained. The condition of the economic linkages of the economic sector in NTB can be shown in Table 2:

Table 2. Forward and Background Linkages

Sectors	Backward linkage	Forward Linkage
A	1.36	1.87
B	2.15	1.28
C	1.85	1.46
D	2.27	2.97
E	1.01	1.39
F	2.04	1.13
G	1.74	1.66
H	2.04	1.72
I	1.41	1.44
J	1.26	1.97
K	1.17	1.86
L	1.16	1.43
MN	1.15	2.39
O	1.52	1.11
P	1.33	1.03
Q	1.18	1.08
RSTU	1.27	1.38

Based on the data in Table 2, the forward linkage of all sectors has a value of more than 1. This indicates that these sectors have a greater direct and indirect impact if there is an increase in final demand. If there is an increase in final demand of 1, it will encourage an increase in output of more than 1. On the other hand, sector D has a multiplier value of 2.97, which means that every 1 trillion increase in final demand will lead to an increase in output directly and indirectly by 2.97 trillion.

Based on the data in Table 2, the backward relationship of all sectors has a value of more than 1. This indicates that these sectors have a greater direct and indirect impact if there is an increase in final demand. If there is an increase in final demand of 1 will encourage an increase in output of more than 1(one). On the other hand, sector D has a multiplier value of 2.27, which means that every 1 trillion increase in final demand will encourage an increase in output directly and indirectly to the upstream sector of 2.27 trillion.

Based on the Table 2, Sector D (Electricity and Gas Procurement) is the sector with the highest output multiplier value in NTB based on backward linkages. The electricity and gas procurement sector has a multiplier value

of 2.27. This means that when there is an increase in final demand by IDR 1 million, the electricity and gas procurement sector can encourage an increase in the upstream sector by IDR 2.27 million. Based on direct and indirect backward linkages, the electricity and gas procurement sector is the sector with the largest backward linkage for the upstream sector. According to Bank Indonesia (2022), When compared to June 2022's inflation rate of 0.15%, this commodity's contribution to September 2022's inflation of 0.20% (year on year) was more significant (year on year). Price hikes for household fuel. This ladder appears on a national level and is in sync with an increase in the price of raw resources like oil on a global scale. The geopolitical war between Russia and Ukraine and the normalization of demand caused the oil price to rise to USD 90 and USD 100 per barrel in 2022, more significant than the year before when it was between USD 50 and USD 80 per barrel. Contrary to Rahardjo et al. (2005), the mining sector is the only one in NTB Province classified as a relatively lagging sector because it has a slower growth rate than the same sector in East Java Province. Meanwhile, the electricity, gas, and water sectors are classified as advanced but depressed.

The electricity and gas procurement sector has the greatest direct and indirect backward linkages and the most significant direct and indirect forward linkages. The electricity and gas procurement sector has an output multiplier value of 2.97 for direct and indirect forward linkages. This means that if the final demand increases by IDR 1 million, this sector will be able to, directly and indirectly, encourage an increase in the downstream sector by IDR 2.97 million. Infrastructure related to electricity, gas, and clean water plays a significant strategic role in the national economy. Large-scale construction projects are involved in the development of the power, gas, and clean water infrastructure, and if they are successful, they may affect the amount of resources needed for such projects as well as the state of the national economy. Creating infrastructure for power, gas, and clean water requires the construction sector to function together and to collaborate with other sectors to form the Gross Domestic Product.

The electricity, gas, and water supply sectors are linked to the construction and other sectors due to sector interactions. This means that any demand for output in this sector will have an impact on both the growth of economic activity for the formation of output in the electricity, gas, and water supply sectors as well as in the construction sector and other sectors, which will have an impact on the overall economic activity of the country. The high increase in the electricity and gas sector was due to the increase in electricity consumption in the household and industrial segments, especially Christmas and New Year. Scan from the imposition of activity restrictions for the community which, ultimately, more people are at home, increasing household electricity consumption.

From the description of the output distribution of the economic sector in NTB, it can be seen that the agricultural sector has the largest output value. However, the sector with the highest multiplier value is the Electricity and Gas Procurement sector. The Electricity and Gas Procurement sector also can encourage progress in both the upstream and downstream sectors. According to Pramaria (2022), Priority development attention must be given to industries in prime categories for fast growth and structural change. This is because the primary sector already has a market outside the area and can meet local demand, which means it can contribute to the local economy and expand quickly. When limited funds are available, priority might be given to important industries. Emerging industries should be encouraged to expand their markets because they are experiencing rapid growth but still need to contribute to the local economy. The sector is expanding, but it is hesitant to raise production because it already has export markets.

The agricultural industry has much potential for natural resources. The large agricultural acreage in Nusa Province's west-southwest can potentially significantly boost the nation's food supplies. Research by Sukanto (2011) shows that the Other Foodstuffs sub-sector has numbers high linkage compared to other sectors, while the linkage rate forward (Forward Linkages) either directly, totally, or indirectly shows that the sub-sector has the highest number. Meanwhile, the most significant income multiplier value of all sectors of the economy is the Other Food Ingredients sector. This is so that the industry can support the economy in areas with a dominant agricultural sector, should the choice of type the industries to be driven be adjusted with the product potential from the agricultural sector or support the agricultural sector.

Another comparative advantage that the region has agricultural land in NTB is farmers' ability to integrate tree crops and livestock, which has become indigenous knowledge from generation to generation. Society and government have yet to recognize it widely, so its potential has yet to be fully developed. Suppose This advantage can be developed and utilized well. In that case, it may alleviate poverty and improve land and environmental quality in dryland areas. In this case, the government needs to take action by protecting the agricultural areas. The real form This can be done through restrictions on development permits not related to the agricultural sector. During this time, agricultural land was still being converted in several areas in NTB, thus causing a reduction in land agriculture that alternated with housing, shops, and several other uses unrelated to agriculture.

## CONCLUSION AND SUGGESTION

### Conclusion

The distribution of NTB's output is mainly used within the NTB area, and the majority is used for final demand purposes. This indicates that NTB's export capacity is still small and that its output needs are more dominant for consumption. The sector with the most significant output value in NTB is still the agricultural sector.

However, based on a linkage analysis, the Electricity and Gas Procurement sector has the most significant capacity to encourage the progress of its upstream and downstream sectors. This means that the sector has the potential as a leading sector that has the highest economic multiplier. Although it is not a sector that has the largest output value, the Electricity and Gas Procurement sector has the large potential impact.

### Suggestion

1. NTB Province needs to look at the economic potential of the existing export sectors, both for exports to foreign countries and exports to other regions in Indonesia. This is to accelerate the economic growth of NTB
2. Leading sectors that have a high multiplier value need to be a development priority by the government because they can provide higher multiples of benefits, such as in the Electricity and Gas Procurement sector.

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