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Towards Understanding Economic Growth in Indonesia: Reinterpretation Of Lewis Model In Improving Lingving Standars of Agricultural Sector Workforce Evidence From Indonesia

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Abstract

Agricultural has a prominent role in maintaining the equilibrium of economic condition. Nevertheless, most people have a tendency that this agricultural sector is not prospective enough in improving their living standard, then they decide to be an employee which is already crowded. Thus, this study will discuss and learn about Lewis's model of two-sector economics regarding to reinterpretation of this condition. The purpose of this research is to formulate the right model in improving the standard of living of agricultural sector workers. In this study will use quantitative methods with descriptive analysis to develop the models offered by Lewis. The results obtained by minimizing the massive transformation of agricultural sector workers to industrial sector workers can reduce the inequality in terms of employment. Where agricultural sector workers can upgrade their skills with the help of government social programs, namely labor-intensive programs so that farmers can prosper without leaving their main professions to become farmers, so that the employment sector industry does not expand (especially in urban industries).

Keywords: *economic growth, lewis model, agricultural sector*

1. Introduction

The agricultural sector continues to be a fundamental instrument for development and the decline of 21st-century poverty. Agriculture contributes development as one of economic activity, as livelihoods as well as providing environmental services (Moeis & et al., 2020). Agriculture contributes to development as an economic activity, as livelihoods, and as an environmental service provider (Bank, 2007; Dašić et al., 2020)

In many countries in Asia at the moment there is a large decrease in the share of employment in agriculture in contrast to a significant increase in the share of employment in labor-intensive and export-oriented manufacturing (McMillan & et al, 2014).Thus people tend to switch to informal work in the labor-intensive manufacturing sector compared to in agriculture. In contrast to that experienced by most countries in Asia, Indonesia can highlight the agricultural sector has enormous potential in encouraging economic improvement itself geographical location is very supportive to improve the agricultural sector so that people domiciled in the countryside can utilize existing resources (agricultural sector) to improve the economy.

According to the Minister of Agriculture of Indonesia "cumulatively the value of Indonesia's agricultural exports in the period January- August 2020 increased from the previous one which initially only $US 2.2 billion increased to $US 2.4 billion" (Musyafak, 2020). This indicates that the agricultural sector is one of the definitive solutions to economic improvement in the midst of the Covid019 pandemic that is still sweeping the world. However, there are some obstacles experienced by Indonesia in

developing the agricultural sector in the era of industrial revolution 4.0, such as human resource problems, agricultural land conditions and socio-cultural communities (Kilmanun &Astuti, 2020).

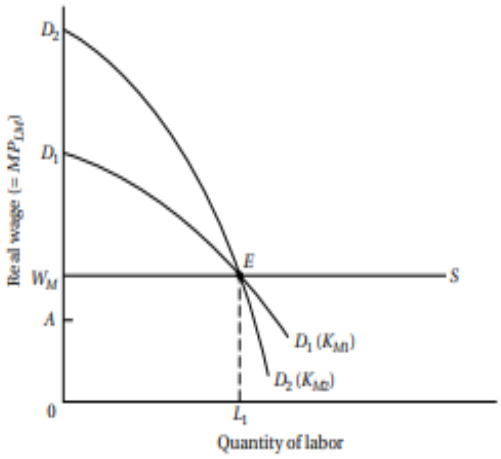
The potential of human resources in the agricultural sector is inadequate due to the lack of public interest in choosing informal jobs in the agricultural sector because of the assumption that the agricultural sector is a very low business scale compared to formal and informal work in the manufacturing and service sectors. In addition, the lack of skill updates that agricultural sector human resources have in facing the industrial era of globalization 4.0 such as lack of formal education and understanding of agricultural management technology is fairly low.

There is a lot of literature on factors that affect welfare mobility in the agricultural sector. One of the models often used is the dual sector economic model initiated by Lewis (1945) which explains the relationship between the agricultural sector and the industrial sector, as well as providing an explanation of the asymmetry or dualism between the two sectors. Agriculture uses land as well as labor in production with agricultural land considered constant in this theory (Moeis &et al., 2020). In contrast to the agricultural sector, the industry uses labor capital in production. Thus, the accumulation of capital use only occurs in the industrial sector, but the two sectors are interconnected through labor input.

Initially, the agricultural sector experienced zero marginal products additional labor did not contribute anything to agricultural output (Todaro, 2012). This identifies that there are several forms of labor that can be moved in the industrial sector without sacrificing any agricultural output. This process can continue until the marginal product of labor in the agricultural sector no longer exists. This process will create economic growth, especially in the industrial sector. This can be described in the form of a chart as follows:

Figure 1

Lewis's modified model of accumulated labor-saving capital: employment implications



Lewis' dual sector model can be a solution to the improvement of the agricultural sector in Indonesia by clarifying the positive or negative relationship between the two sectors that are currently not widely explored. in the era of globalization 4.0 industrial sector has increased quite rapidly, this encourages the possibility of agricultural land reinvested / allocated into the non-agricultural sector / industrial sector (Tuyen &Houng, 2013) losses in agricultural land due to industrialization led to the expansion and development of industries that create urban areas, industrial zones, and local infrastructure improvements. This form of transformation can accelerate the process of movement of workers out of the agricultural sector (Moeis &et al., 2020). However, not all farmers benefited from this industrial revolution, as farmers with low education tended to be less likely to work or to work in the informal sector (Nguyen &et al., 2015).

This research will reinterpret a model that has been initiated by Lewis (1979) related to the economic growth of two sectors that to provide awareness to the community, especially those domiciled in the countryside that informal employment preferences of the agricultural sector can be an opportunity in improving the economy, especially in the era of pandemic covid-19 as the novelty, so that people's interest in choosing a job is not only focused on the type of formal work. In addition, a model will be offered that can later be used as a solution in improving the economy of people who work informally in the agricultural sector.

3. Research Methods

This research use a qualitative method with library research approach that emphasizes more on the aspect of deep understanding of a problem than looking at problems for generalization research. From the other hand and simply it can be said that the purpose of qualitative research is to find answers to a phenomenon or question through the application of scientific procedures systematically using qualitative approaches (Yusuf, 2016).

4. Result and Discussion

Some regions in Indonesia experienced an increase in public interest in the informal agricultural sector at the end of 2019. But some of them also experienced a decrease in public interest. This is because the industrial revolution 4.0 makes people tend to have an increase in interest in the industrial sector. Where rural communities that have opportunities for the agricultural sector tend to abandon their potential in agriculture to move to the industrial field. The industrial sector in Indonesia is concentrated in major cities in Indonesia.

Table 1
Agricultural sector labor statistics

	Percentage of informal agricultural sector workforce (percent)				
	2015	2016	2017	2018	2019
Aceh	85.11	85.72	86.79	84.53	84.34
Sumatera utara	82.10	83.99	81.01	80.55	78.27
Sumatera barat	86.02	85.33	90.05	89.49	89.35
Riau	65.61	76.41	73.66	75.87	70.61
Jambi	74.00	80.18	78.16	74.80	75.74
Sumatera selatan	77.56	77.77	84.13	82.47	79.26
Bengkulu	88.98	87.89	88.87	89.74	86.87
Lampung	87.78	88.85	88.45	90.85	91.15
Kep. Bangka belitung	78.70	76.62	73.76	76.24	71.11
Kep. Riau	76.49	74.25	75.42	80.94	80.69
Dki jakarta	47.91	47.22	38.08	48.74	38.64
Jawa barat	86.00	87.10	89.20	86.15	88.95
Jawa tengah	90.50	92.24	92.29	91.72	92.99
Di yogyakarta	93.79	95.66	96.63	95.25	95.74
Jawa timur	89.70	90.45	89.30	91.51	89.97
Banten	89.37	89.12	93.61	87.98	87.66
Bali	92.25	93.18	93.50	93.34	93.08
Nusa tenggara barat	96.77	96.19	96.81	96.32	96.15
Nusa tenggara timur	97.82	98.15	97.21	97.61	96.95
Kalimantan barat	85.34	83.83	82.31	81.74	81.83
Kalimantan tengah	68.80	83.75	74.47	69.73	66.84
Kalimantan selatan	82.90	86.66	86.89	84.99	82.35
Kalimantan timur	68.91	77.79	71.13	69.02	70.60
Kalimantan utara	73.49	75.09	76.28	77.60	75.16
Sulawesi utara	87.03	87.33	87.99	86.20	81.78
Sulawesi tengah	89.62	92.87	94.21	92.70	89.24
Sulawesi selatan	92.30	92.49	93.43	93.03	92.42
Sulawesi tenggara	94.39	96.41	95.53	94.22	92.56
Gorontalo	87.57	91.14	86.46	89.56	87.98
Sulawesi barat	92.44	91.82	89.76	93.39	93.34
Maluku	93.67	95.50	93.88	91.54	93.46
Maluku utara	91.94	90.20	89.77	95.51	91.93
Papua barat	92.84	93.78	91.76	91.30	88.84
Papua	98.03	98.71	98.64	98.31	98.80
Indonesia	87.12	88.59	88.50	88.27	87.50

Source: BPS (2019)

Based on the growth of the agricultural sector in Indonesia, in February 2020 there were about 38.05 million (29.04 percent) of the population with vulnerable age 15 years and above working in the agricultural sector. This indicates that the agricultural

sector is the sector with the highest number of labor absorption in Indonesia (BPS, 2020). The large opportunities for labor absorption in the agricultural sector, demanded the Government to pay attention to the level of welfare and standard of living of farmers.

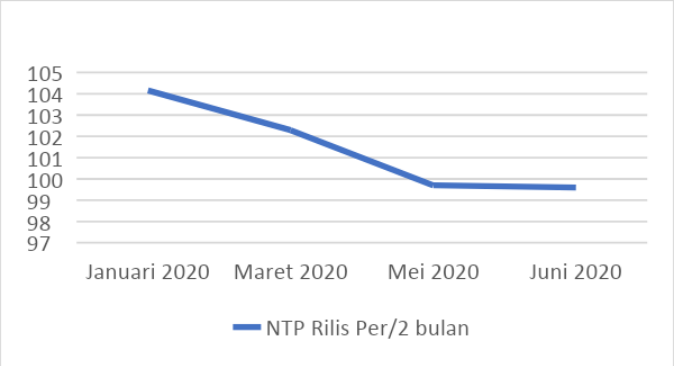
A. Describing The level of Farmer Through Farmer Exchange Rate (NTP)

One of the indicators that can be used in describing the level of welfare of farmers is to look at the Farmer Exchange Rate (NTP) by:

$$NTP = \frac{\text{Farmer Price Index}}{\text{Price Index paid by Farmers}}$$

NTP that has been calculated compared to the number 100. If the NTP index > 100 points then at that time farmers are experiencing a surplus which means the level of welfare of farmers is better than the previous one.

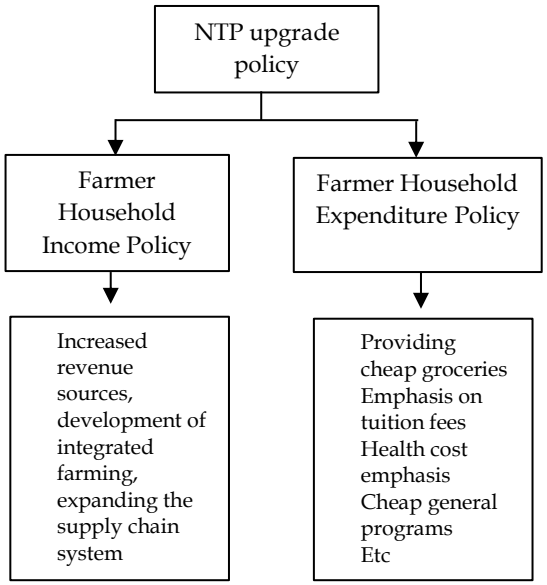
Figure 3
Ntp Indonesia's condition in the era of the Covid-19 Pandemic



Source: BPS (2020)

Undeniably, with the challenges in the era of pandemic covid-19 has impacted almost all aspects of life, no exception to the agricultural sector. Based on data released by the Central Bureau of Statistics, here is a summary of the state of NTP in Indonesia in the midst of the covid-19 pandemic. As a solution, there are two policy approaches that can be done in improving the NTP index, namely bi policies in the field of farmers' household income and in the field of farmer households (Rahmad, 2020).

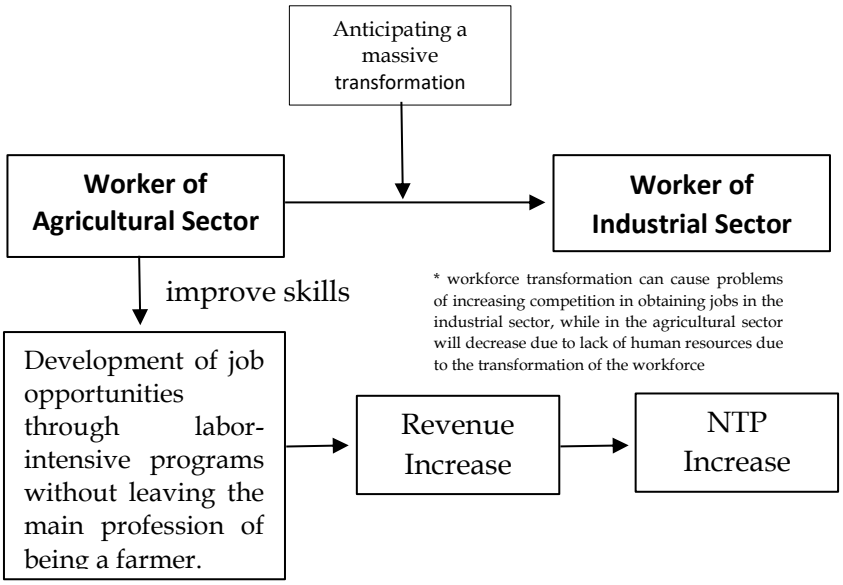
Figure 4: Concept of NTP Improvement Policy



Another solution offered in this paper is to reinterpret lewis' two-sector development model of collaborating on industrial and agricultural sectors, as follows:

Figure 5

Concept of reinterpretation two sector Lewis



Source: Author (2020)

From the concept offered above, people who work as farmers can develop their skills through programs offered by the government in the form of labor-intensive programs without having to give up their main profession as farmers. This is a solution for the balance between modern and traditional economic sectors. Where the

modern sector will run in accordance with its portion because of the minimize the surge of urban job seekers. In addition, this concept can also encourage the emergence of self-reliance in rural communities, especially for farmers to be consistent in increasing their income without having to move to urban areas. Thus, opportunities for economic development in the countryside will also increase.

5. Conclution

The agricultural sector in Indonesia is one of the sectors that can absorb a lot of labor compared to other sectors. This is due to the large agricultural potential in Indonesia supported by geographical location. Thus, if the agricultural sector in Indonesia can be managed properly, it can encourage the creation of better economic growth. The reinterpretation that can be obtained from the economic theory of the development of lewis two sectors, namely these two sectors will be better if it goes hand in hand, in other words each sector has the right strategy in encouraging the creation of economic growth.

Where the industrial sector can be managed by competent people in their fields. While in the agricultural sector, farmers can improve their quality of life by developing labor-based skills so that they can continue to contribute to economic growth without leaving their main profession as farmers. This is so that both in the agricultural and industrial sectors do not harm each other because of the transformation of excessive labor that makes one or both become unstable.

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