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Effect of Timber, Palm Oil, and Gold Output on GNI in Indonesia in the Maqashid Framework

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ABSTRACT

This study had a purpose to observe if the natural resources production had a significant impact on GNI of Indonesia. this study also observed if the management of natural resources in Indonesia has been appropriate based on maqashid sharia principle. This study used secondary data gathered from Faostat for palm oil and Roundwood coniferous production, and the world bank for data about gross national income (GNI) and total gold reserved. The data was collected using purposive sampling from Indonesia, starting from 1970 to 2019. The data were analyzed using vector error correction model method and processed by Eviews version 10. The result showed that palm oil and Roundwood coniferous productions had no significant effect to GNI. However, ouput of gold production had a significant effect to GNI of Indonesia. This study also showed that in the case of palm oil and Roundwood production, the way they had obtained was not appropriate according to the principle of maqashid sharia. In the case of palm tree plantation, the plantation could damage the nature and affect the social economy of the local people. In the case of Roundwood coniferous production, there was may illegal logging to increase the output.

Keywords: *Gold, palm oil, Roundwood, Management, Maqashid.*

1. Introduction

Natural resources is vital for the capital of economic growth besides human resources. There are renewable and non-renewable resources that could be utilized into useful products. The more difficult it get a certain natural resource, the higher the price is. Non-renewable natural resources like mining raw material such as gold has high value in the market because of its scarcity. Renewable resources was different from non-renewable and the supply could be maintained in the market. The scarcity of the natural resources could led to the monopoly by certain group or authority. This kind of monopoly should be prohibited because it could disrupt the distribution of wealth (Saniotis, 2012).

Indonesia as an archipelago country has various kinds of abundant natural resources, both of non-renewable as well as renewable. But aside from the abundant resources, Indonesia's economy growth has not as fast as modern country. Even the neighboring countries such as Malaysia, Brunei, and Singapore. One of the reason was because there have been corruption in management of natural resources. This kind of evil act have been practiced since a long time ago and never been completely eradicated.

Allah SWT sent the human down to earth to carry out a mission as a caliph in managing the earth to be a good place for other creatures. Human were provided with Alqur'an and hadith as a guide to prevent human in misleading form the right path. Human have been provided with natural resources on the surface and inside the earth to be managed with each other. This was the concept of distribution of wealth based on sharia law (Yusof et al., n.d.).

Islamic economy perspective prohibited the monopoly of natural resources, because any kind of economic activity should avoid gharar harming own self and other people, maysir or speculation and gambling, and riba or usury. Moreover, the practice of monopolizing the natural resources is considered as haram/prohibited, because it would cause market disruption in distributing wealth toward economic activity (Nafis, 2019). Indonesia as a country with the highest Muslim in the world should implement the principle of Islamic law as the base of the national economic foundation in managing natural resources. Based on that background, this study has a purpose to observe if the

management of natural resources in Indonesia has been appropriate based on maqashid sharia principle (Adolf et al., 2018).

2. Literature Review

2.1 Natural Resources as the Source of Government Income to Build the Nation

It was a common idea that natural resources were the source of profit for the government. Renewable natural resources such as raw materials from forests could be sold at high prices and create many job opportunities for local communities. This was the same as non-renewable resources, although they could not be regenerated again, non-renewable resources could fetch a high price in the global market, such as gold and silver. The more a country had natural resources, the higher opportunity to fasten the development and create mutual prosperity for society.

However, not all the countries with rich natural resources could reach the stage of the modern country or prosperity for all. It depends on the human resources which manage the ownership of natural resources. So many countries have fallen into poverty, even though they have rich natural resources. In the case of Middle Eastern countries with rich oil could not achieve peace inside their own countries, South Africa with the rich diamond as its natural resources also fell into poverty. Another case was Indonesia with rich renewable and non-renewable resources that could not erase the poverty, unemployment, and Gini ratio, because of the poor management of natural resources.

A study by Farrukh et al stated that the management of natural resources by authorities was the key to processing natural resources so that the profit could be used for the nation's development, without being corrupted. European countries had fewer natural resources than Asian countries, but their economy development was higher than Asian. Such case happened because European countries relied heavily on human development as the source in triggering economy development. Moreover, rich in innovation was better than owning many natural resources (Farrukh et al., 2021)

2.2 Maqashid Pillars in Protecting Mutual Benefit in Economic activity

Based on the Ruslang, Kara, and Wahab (2020), maqashid Maqashid Syari'ah is a concept to know wisdom (the values and goals of syara' which are expressed and implied in the Qur'an and Hadith). Maqashid has the sole purpose maintain maslahah or goodness and welfare of mankind both in the world (with Mu'amalah) as well as in the hereafter (with 'aqidah and Worship). While the way to achieve benefit In this case, humans must meet the needs of Dharuriat (Primary), and perfect needs of Hajiyat (secondary), and Tahsiniat or kamaliat (tertiary) (Kamelia, 2018).

Islamic economy is different from conventional economy, where fatwa is used for the regulation to complement Qur'an or hadith. A fatwa is often used as a reference for a long time. Therefore, it takes a thorough understanding of a matter in an economic situation, especially in modern era before the Islamic council declares a fatwa. One of them is to understand maqashid sharia (Rahman et al., 2017).

According to as-Syathibi, maslahah as maqasid sharia must be absolute and universal. Absolute means that maslahah should not be subjective or could be adjusted based on the development of the era. Moreover, to be able in reaching a maslahah, the economic activity should implement maqashid which avoids personal pleasure, personal gain, fulfillment of desires and individual interests. Maqashid is a concept that is relevant to be used by Muslims in solving new problems that arise as a result of

advances in science and technology that continues to develop in economic activity (Ruslang et al., 2020).

3. LIST OF HYPOTHESIS

3.1 The output of Gold had a Significant Effect on GNI

According to a study by (Ahmad, 2014) that the value of gold as assets was significantly eroded by inflation. Its asset value that rarely changes drastically makes gold savings an investment choice with a level of risk that tends to be easy to manage. Investors often consider gold as one of the safest investment products. The value of gold often recovers quickly in the event of an economic downturn. The price is often the opposite of the stock market or changes in the economy. When investors confidence to stocks was shattered, gold prices often rise as anxious investors seek safe places to withdraw cash from the market. Not only investors, government also raised their gold reserved ratio in case there was a sudden turmoil in national economy, because gold value was safer than in paper money. Therefore. The hypothesis formed as follwos:

H1: Output of gold production had significant effect to GNI of Indonesia

3.2 Output of Palm Oil had Signifcant Effect to GNI

Palm oil was the favorite agricultural product for Indonesian government. The width of agricultural land for palm oil plantations stated by The Ministry of Agriculture reached 15.08 million hectares in 2021. This area significantly increased by 1.5% compared to the previous year which was 1.48 million hectares. According to the study by (Syahza & Asmit, 2020), oil palm plantations in the Riau area have brought major changes to the condition of rural communities. In addition, the development of oil palm plantations also stimulates the growth of the palm oil processing industry in creating job opportunities. The more development of oil palm plantations, the more the impact on the workforce working in the plantation sector and its derivative sectors will be felt. This impact can be seen from the increase in the income of the farming community, thereby increasing the purchasing power of rural communities, both for primary and secondary needs. Based on that background, the hypothesis was formulated as follows:

H2: Output of palm oil had significant effect to GNI of Indonesia

3.3 Output of Roundwood Corniferous had Significant Effect to GNI

According to the study by (Midgley et al., 2017), the export of industrial commodities of wood and its products also has the greatest influence on state income like the garment and textile industries. Almost all real estate, furniture, tourism, and household industries require wood as a raw material. The increasing demand for wood in Indonesia has encouraged the emergence of many wood processing industries, which will contribute more income taxes to the state. the sub-sector of the wood, wood, rattan and furniture industry contributed 2.60% to the growth of the agribusiness industry group in 2021 (Malahayati et al., 2021). Based on that background, the hypothesis was formulated as follows:

H3: Output of Roundwood coniferous had a significant effect to GNI of Indonesia

4. Method

Data Collection

This study used secondary data from sesric.org to collect the data about Roundwood coniferous production, palm oil production, and gross national income from Indonesia. This study also collected data from databank.worldbank.org to collect gold production. The data were time series, and gathered using purposive sampling technique, collected only from Indonesia, starting from 1974 to 2019. There were 46 samples gathered after data being scrutinized (Yahya Al-ma'ruf et al., 2021).

Data Processing

The data would be tested by unit root test to determine whether the stationary was in level or 1st difference. If in the level, then the method would be used VAR. But if the stationary was in 1st difference, then this study would either use auto regressive distributed lag (ARDL) or vector error correction model (VECM). To determine either this study used ARDL or VECM, the Johansen Conitegration test and Bound Test were used. If all of the probability scores of all variables in both test were >0.05, then it was best to used ARDL. However, if it was not, then VECM would be used.

If this study used VECM, then this study would conduct next unit root test by using residual data, to determine whether the data was suitable using VECM or not. After determining which method was better, then this study would conduct normality test. By using Eviews version 10, this study conducts the three normality tests, namely histogram normality test, Breusch-Godfrey Serial correlation LM Test, and heteroscedasticity test. All of the probability score also had to be more than 0.05 to be considered as normal. Using VECM, this study determine the simultaneous effects of variables X to Y, using F-statistic, and partial effects of variables X to Y using T-test.

After being processed, the data then was analyzed using maqashid sharia by As-Syatibi along with the law analysis according to the Indonesia Constitution Year 1945. The maqashid theory then compared the data findings with five pillars of protection. Maqashid perspective also analyzed the findings of literature about the ownership of the natural resources in Indonesia, as well as the

This study also gathered literatures about maqashid sharia, as well as data about the ownership of palm plantation and lumber production in Indonesia. Thus, this study also gathered literature about the case of scandals related to natural resources. The samples were the ownership of palm oil plantation in Borneo Island and the way firms supplied lumber from forest.

5. Result and Discussion

Determining the Model of time Series through Set of Test

Before analyzing partial and simultaneous test, time series data need to be determined, whether they would be more suitable to be processed using vector autoregressive/VAR, auto regressive distributed lag/ARDL, or vector error correction model/VECM. The test itself was a unit root test of X and Y variables, Johansen test, Bound Test, as well as residual unit root test. After conducting several test, next was testing the data using classical assumption test to determine whether the data were normal or not. All of the data were presented into figures.

Null Hypothesis: Unit root (individual unit root process)
Series: GROSSNATINCOME, PALMOILYIELD, TOTALRESERVEDGOLD, ROUNDWOODCORNIFEROUSPRODUCTION
Date: 03/14/22 Time: 10:42
Sample: 1974 2019
Exogenous variables: Individual effects
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 180
Cross-sections included: 4

Method	Statistic	Prob.**
ADF - Fisher Chi-square	16.5242	0.0355
ADF - Choi Z-stat	0.74943	0.7732

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results UNTITLED

Series	Prob.	Lag	Max Lag	Obs
GROSSNATINCO	0.9982	0	9	45
PALMOILYIELD	0.0092	0	9	45
TOTALRESERVE	0.9979	0	9	45
ROUNDWOODC	0.0282	0	9	45

Figure 1 Unit root test level

Null Hypothesis: Unit root (individual unit root process)
Series: GROSSNATINCOME, PALMOILYIELD, TOTALRESERVEDGOLD, ROUNDWOODCORNIFEROUSPRODUCTION
Date: 03/14/22 Time: 10:42
Sample: 1974 2019
Exogenous variables: Individual effects
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Total (balanced) observations: 176
Cross-sections included: 4

Method	Statistic	Prob.**
ADF - Fisher Chi-square	107.846	0.0000
ADF - Choi Z-stat	-9.22928	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results D(UNTITLED)

Series	Prob.	Lag	Max Lag	Obs
D(GROSSNATIN	0.0005	0	9	44
D(PALMOILYIELD)	0.0000	0	9	44
D(TOTALRESER	0.0000	0	9	44
D(ROUNDWOOD	0.0000	0	9	44

Figure 2 Unit root test 1st difference

Date: 03/14/22 Time: 10:43
Sample (adjusted): 1976 2019
Included observations: 44 after adjustments
Trend assumption: Linear deterministic trend
Series: GROSSNATINCOME PALMOILYIELD TOTALRESERVEDGOLD ROUNDW
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.598868	60.79381	47.85613	0.0019
At most 1	0.229558	20.60140	29.79707	0.3830
At most 2	0.173479	9.126617	15.49471	0.3538
At most 3	0.016751	0.743301	3.841466	0.3886

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Figure 3 Johansen Cointegration test

Figure 1 showed that the test result were not stationary in level. It means that this time series data was not suitable processed using VAR. Instead, VECMA or ARDL were better to be used. Figure 2 showed that the data were stationary in 1st difference. It means that the data of this study were more suitable to be processed using ARDL or VECM. Figure 3 showed that the "none" probability scoe was less than 0.05. it means that the data were not passed Johansen test and ARDL was not suitable to be used as model analysis

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	2.376269	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66
Actual Sample Size	42	Finite Sample: n=45		
		10%	2.56	3.428
		5%	3.078	4.022
		1%	4.27	5.412
		Finite Sample: n=40		
		10%	2.592	3.454
		5%	3.1	4.088
		1%	4.31	5.544

Figure 4 Bound test

Beside Johansen test, another test to strengthen the evidence that the data of this study were not suitable to be processed using ARDL was Bound test. It could be seen on figure 4 that the F-statistic score was less than the score of I(1) in 5% significance level. it means the data have to be prcessed using VECM model.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RES)
Method: Least Squares
Date: 03/14/22 Time: 10:45
Sample (adjusted): 1979 2019
Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RES(-1)	-1.030382	0.163033	-6.320066	0.0000
C	-1.901615	20.98145	-0.090633	0.9282

Figure 5 Unit root test level of residual

Residual of unit root test in figure 5 showed that the probability score of res(-1) was less than 0.05. It means that the residual data was stationary in level. If the residual data was stationary in level, it was proof that the data of this study was more suitable to be processed using the VECM model.

Classical Assumption Test

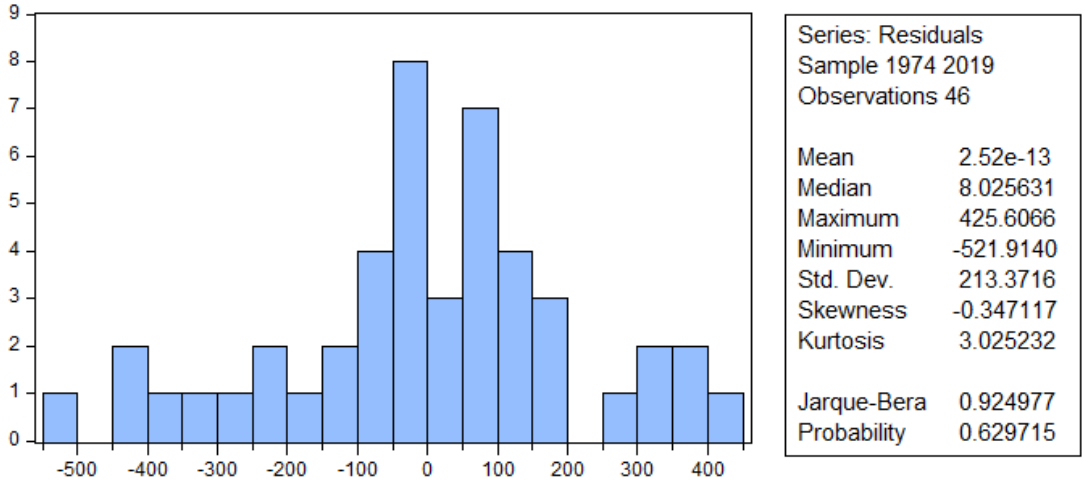

Figure 6 Normality test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	25.66618	Prob. F(40,2)	0.0382
Obs*R-squared	45.91056	Prob. Chi-Square(40)	0.2405

Figure 7 Correlation test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.314737	Prob. F(3,42)	0.8146
Obs*R-squared	1.011398	Prob. Chi-Square(3)	0.7985
Scaled explained SS	0.853788	Prob. Chi-Square(3)	0.8366

Figure 8 Heterokedasticity test

Figure 6 showed that the probability score was more than 0.05, which means that the data was normally distributed. Figure 7 showed that the probability score of Obs* R-squared was also more than 0.05, which means that there was no auto correlation happened inside the data. Figure 8 showed that the Obs* R-squared probability score was also more than 0.05. it means that the data was

homoscedasticity. There was no problem in classical assumption test and the data could be processed using VECM model to determine partial and simultaneous effect of X variables toward Y.

Dependent Variable: D(GROSSNATINCOME)
Method: Least Squares
Date: 03/14/22 Time: 10:47
Sample (adjusted): 1975 2019
Included observations: 45 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PALMOILYIELD)	0.000157	0.001880	0.083426	0.9339
D(TOTALRESERVEDGOLD)	1.39E-08	3.89E-09	3.565604	0.0009
D(ROUNDWOODCORNIFEROUSPRODUC	0.037568	0.091026	0.412716	0.6820
C	41.48965	30.25852	1.371173	0.1778

R-squared	0.245616	Mean dependent var	84.17991
Adjusted R-squared	0.190417	S.D. dependent var	193.3139
S.E. of regression	173.9376	Akaike info criterion	13.23996
Sum squared resid	1240426.	Schwarz criterion	13.40055
Log likelihood	-293.8991	Hannan-Quinn criter.	13.29983
F-statistic	4.449664	Durbin-Watson stat	1.924506
Prob(F-statistic)	0.008515		

Figure 9 F and T-test

Figure 9 showed that there was simultanous effect of variables X to Y. It was shown by the probabaility score of F-statistic which was less than 0.05. but the R-squared score was only 0.24, means that the effect that could be explained using this model of analysis was only 24,5%. The rest was determined by variables outside this model of the study.

Figure 9 also showed that the partial effect of X variables only significant in the "total of reserved gold" to gross national income in Indonesia. it was shown by the probability score which was less than 0.05. the rest were not significant in affecting the gross national income. Based on that result, H1 and H3 were rejected. However, H2 was accepted, because its probability score was <0.05 of significance level.

This result was following the study by (Dornbusch et al., 2021) where the reserved gold could become the national savings that was more resistant against change in global market. Reserved gold previously was used as the exchange value of money, because of its value does not corespond too much with the condition of macroeconomics, unlike stocks and shares. The more a country had reserved gold, the bigger its foreign exchange that could be prepared when the crisis of economy hit.

Gold is a stable form of savings because in Islamic economics there is no inflation. After all, the currencies used are dinars and dirhams. Sheikh an-Nabhani gave several reasons why the appropriate currency was to use gold (Singhal et al., 2019). When Islam forbids the practice of hoarding wealth, Islam only specifies the prohibition for gold and silver, even though wealth includes all items that can be made into wealth. This is because the gold exchange rate tends to be stable and its value always increases for a long time. This is what makes meas suitable as a country's foreign exchange reserves though (Mulyadi & Anwar, 2012).

The result above where production of palm oil had no significant effect to GNI also in line with the study by (Pacheco 2012) stated that the expansion of oil palm plantations has the potential to cause environmental problems. Plantation expansion for oil palm can lead to deforestation, increasing carbon emissions, and climate change, so that it can interfere with environmental conditions. Central Kalimantan province has an area of 1 million oil palm plantations Ha, and has a target to increase the

area of oil palm plantations up to 3.5 million Ha which results in massive deforestation (Pramudya et al., 2018).

In line with Pacheco, a study by Obidzinski et al.(2012) stated that public perception of the impact of expansion for palm oil plantation trees was negative because they were affraid that it could led to the changes in environmental conditions that will occured. Changes in environmental conditions experienced by the community due to land changes to oil palm plantations that had occured were water pollution, reduced animal populations, and reduced quantity of groundwater or drought. Around twenty-two percents of the respondents in this study stated that there was water pollution, with the increase in the area of palm oil plantations, mainly from the use of chemical fertilizers and drugs to provide fertility on palm oil trees. This results from fertilization activities which were wasted into rivers and ponds. Azhar et al. (2011) also stated that the heavy usage of fertilizers and pesticides in large quantities will cause environmental damage and threaten biodiversity.

Data from the Directorate General of Plantations of the Ministry of Agriculture (Kementan) noted that the area of oil palm plantations in South Kalimantan reached 64,632 hectares (Harini et al., 2018). According to the Ministry of Agriculture, the productivity of South Kalimantan's oil palm plantations has reached 3.92 tons per hectare or is the second highest in Indonesia after Central Kalimantan, whose productivity is around 4.09 tons per hectare. Most of the oil palm plantations in South Kalimantan are controlled by large private companies. The following is a list of the 5 largest corporations controlling oil palm plantations (Peluso, 2005).

Table 1. List of ownership of palm tree plantation in Kalimantan/Borneo

Company name	**Owner**	**Total asset**
Plantation Company London Sumatra Indonesia Tbk (LSIP)	Anthony Salim	S 5,9 Billion
Royal Golden Eagle International (RGEI)	Sukanto Tantono	S 1,35 Billion
Wilmar	Maruta Sitorus	$ 2 Billion
First Resources Ltd	Ciliandra Fangiono	$ 1.05 Billion
PT Matahari Kahuripan	Susilo Wonowidjojo	$ 5.3 Billion
PT Sampoerna Agro Tbk	Putera Sampoerna	$ 1.8 Billion
Musim Mas	Bachtiar Karim	$ 6.6 Billion

Source: money.kompas.com

Table 1 showed that the super rich people have achieved in accumulating wealth so much that it could not even be compared with the average wealth of middle and lower class of society in Indonesia. moreover, based on the company that they owned, not a single of them implemented the principle of maqashid sharia, because not a single of them was Muslim. Based on the maqashid sharia, the distribution of wealth in economic activity should be equal to all of the individuals who were involved, based on their effort. Maqashid also emphasized that the accumulation of wealth into no productive asset such as saving on the bank would create more cost of money because of obligation to pay zakat (Rahman et al., 2017).

Across the west of Borneo/Kalimantan to center of Borneo covered with palm tree plantations. Most of the owner of the palm tree plantation were not Muslim. They also didn't know about sharia economy system nor sharia application of finance in distributing wealth in society such as zakat and waqf (Huda, 2018).

To avoid in getting more loss from zakat, people with non productive money were onliged to distribute their saving into potential investment with sharia model of transaction. Investment into potential market would balance the number of money distributed into society, so that it would keep

the inflation rate balanced. Islamic economy emphasied more in real sector, rather than money sector as commodity of trade to ensure that the distribution of wealth was implemented (Mujahidin, 2018).

ۨالَّذِيْ جَمَعَ مَالًا وَّعَدَّدَهٗۙ يَحْسَبُ اَنَّ مَالَهٗٓ اَخْلَدَهٗۚ كَلَّا لَيُنْۢبَذَنَّ فِى الْحُطَمَةِۖ
2.ۨالَّذِيْ جَمَعَ مَالًا وَّعَدَّدَهٗۙ يَحْسَبُ اَنَّ مَالَهٗٓ اَخْلَدَهٗۚ كَلَّا لَيُنْۢبَذَنَّ فِى الْحُطَمَةِۖ وَمَآ اَدْرٰىكَ مَا الْحُطَمَةُۗ نَارُ اللّٰهِ الْمُوْقَدَةُۙ

Who collects treasures and counts them. He (man) thinks that his wealth can keep him. Never! Surely he will be thrown into (hell) Hutamah (Qs Humazah (104): 2-4)

It can be seen from a verse from Surah al-humazah that hoarding of wealth in a great number was not suitable with Islamic economy foundation. Besides, hoarding the wealth could enlarge the class distinction within society. Islamic finance features could alleviate the class distinction by giving the obligation of rich people to pay zakah, sadaqat, and waqf (Ismail, 2018).

This was also different from what the Prophet Muhammad done when he had enough wealth. In regulating the economy, the Prophet Muhammad gave guidance to Muslims not to accumulate wealth. As stated in the Qur'an in the hadith narrated by Bukhari "Do not withhold your wealth, (then) Allah will withhold His bounty from you" (Muslimin, 2019). In the use of standard economic transactions, the Prophet Muhammad set the standard for the dinar and dirham to continue the existing transaction units, namely the Roman Dinar and the Persian Dirham that had existed previously (Jaheed et al., 2019). At that time, 1 dinar was equivalent to 10 dirhams (Chapra, 1996). Rasulullah SAW also did not support the practice of barter because of the absence of a commensurate value reference in barter transactions and avoiding entering into usury transactions. It was also stated on the Qur'an about not to accumulating welath for own purpose so much that it could create class distinction widen.

مَآ اَفَاۤءَ اللّٰهُ عَلٰى رَسُوْلِهٖ مِنْ اَهْلِ الْقُرٰى فَلِلّٰهِ وَلِلرَّسُوْلِ وَلِذِى الْقُرْبٰى وَالْيَتٰمٰى وَالْمَسٰكِيْنِ وَابْنِ السَّبِيْلِۙ كَيْ لَا يَكُوْنَ دُوْلَةًۢ بَيْنَ الْاَغْنِيَاۤءِ مِنْكُمْۗ وَمَآ اٰتٰىكُمُ الرَّسُوْلُ فَخُذُوْهُ وَمَا نَهٰىكُمْ عَنْهُ فَانْتَهُوْاۚ وَاتَّقُوا اللّٰهَۗ اِنَّ اللّٰهَ شَدِيْدُ الْعِقَابِ

Whatever (wealth acquired without war) that Allah has bestowed upon His Messenger from the inhabitants of several lands is for Allah, the Messenger, relatives (Rasul), orphans, the poor, and people on their way. (Thus) so that the treasure does not circulate only among the rich among you. What the Prophet gave you, take it. What he forbids you, leave. Fear Allah. Verily Allah is very severe in punishment.

During the reign of the first Caliph, Abu Bakr, where his family's necessities have been taken care of by the wealth of this Baitul Maal. According to some accounts, he was allowed to take two and a half or two and three quarters of a dirham daily from the Baitul Maal with additional food in the form of lamb and ordinary clothes. After some time, it turned out that the allowance was not enough so that it was determined 2,000 or 2,500 dirhams and according to other information 6,000 dirhams per year (Madelung, 1997).

Abu Bakr As Shiddiq also emphasied the imposition of zakat, in order to encourage the maintenance of public demand at the lowest level to be able to access the market, especially to meet their daily needs. The zakat charged to agricultural land with water sources from the rain is greater than the zakat charged to zakat originating from the land. This is because agriculture that is sourced from groundwater raises maintenance costs for the continuity of the water source (Hawting, 2002).

Meanwhile, the zakat that is charged to farms where the more animals are kept. The smaller the portion of zakat is because the costs incurred by having many animals will be even greater. In addition, with the increasing number of animals that are kept will increase the scale of larger production. The imposition of khums as a proportional tax is an effort to achieve economic stabilization (Johari et al., n.d.).

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خُذْ مِنْ اَمْوَالِهِمْ صَدَقَةً تُطَهِّرُهُمْ وَتُزَكِّيْهِمْ بِهَا وَصَلِّ عَلَيْهِمْۗ اِنَّ صَلٰوتَكَ سَكَنٌ لَّهُمْۗ وَاللّٰهُ سَمِيْعٌ عَلِيْمٌ

Take zakat from their wealth (to) purify and cleanse them, and pray for them because your prayer is peace for them. Allah is All-Hearing, All-Knowing. Zakat cleanses them of stinginess and excessive love for wealth.

Similar to Abu Bakr, Umar also imposed taxes (ushr) on purchases and sales (maqs). After the Islamic State was established in Arabia, the Prophet took the initiative to encourage trade business by eliminating import duties between provinces that were included in his territory and entered into agreements handled by him together with the tribes that submitted to his power. The tax would be used firstly for the poor one before being used for infrastructure. The usage of tax for the salary of authorities, especially for caliph would be done after the first and second target has been fulfilled (Liebl, 2009).

When Uthman reigned, Caliph Uthman did not take wages from his office. Instead, he eased the burden on the government in terms of; serious. He will keep his money in the State treasury. This led to a misunderstanding between the caliph and Abdullah Bin Arqom, one of the Prophet's prominent companions, who was authorized to carry out central Baitul Maal activities.

He also tried to increase spending and defense and maritime affairs, increase pension funds and development in the new conquered territories, the caliph made some administrative changes and increased the kharaj and jizya of Egypt. Caliph Uthman avoid in accumulating wealth too much, because it could led to the socilas distinction and disruption of distribution of wealth (Usman et al., 2017).

The result in figure 9 also showed that the output of roundwood coniferous production had no significant impact to the gross national income of Indonesia. this is in line with the study by Rofiaty which stated that although roundwood was considered as renewable resource, it took a time to be harvested from trees, so that the profit from the sales was not so much affected the gross national income in a large scale. In the past where forest was still abundant and trees grew all over the place wood could be gathered from trees easily. However, in the modern era, relying the national income solely on renewable resources such as roundwood won't give a much. Instead, the innovation of people and technological advances played more significant effect in increasing the scale of market profit than from selling roundwood (Rofiaty, 2019).

Study by (Angelsen & Kaimowitz, 1999) stated that the increasing demand of wood could led to the sudden increase of deforestation. As the deforestation increased, it led to the drought and changing of climate which could impact to the local economy. Study by (Mendez et al., 2010) stated that in modern era, materail such as ligt gauge steel framing could replace the usage of wood for building materail as well as for furniture. Light gauge steel framing had more resistant against water and had not problem against termits as what timber had. For roof, people now perefer galvalum rather than wood because of its resistant and availability (Sovetnikov et al., 2015).

Study by (Casson & Obidzinski, 2002) stated that illegal logging for lumber production in Indonesia had become the major issue in affecting total deforestation, besides deforestation for palm oil plantation in Kalimantan. Lumber business had involved some of the cartels which operate illegally with the backup from authorities, so that their activities would not be suspected.

One of the example of illegal logging practice in Indonesia was illegal logging activities in the PT PDIW area in Muaro Jambi Regency. At least hundreds of processed logs were found by The Jambi Regional Police. The members of criminal investigation from Jambi Regional Police found hundreds of logs or logs that had been processed into boards that were tied up and would be flowed into the canal to be removed from the forest through the canal. (Nugroho & Eko Prasetyo, 2019)

Moreover, the illegal logging activity was not ceased out during pandemic of COVID-19. The Independent Forestry Monitoring Network (JPIK) noted that there were 15 cases of forestry crimes

since the beginning of the outbreak of the pandemic to August 2020. This includes thousands of cubic meters of illegally logged timber from various forests across Indonesia. Most of the wood comes from protected forests, wildlife sanctuaries, and national parks that are protected by law and are prohibited from using wood from forest products. The perpetrator used the opportunity of weak supervision by law enforcement officers due to restrictions on working time during the pandemic to engaged illegal logging. Owners of timber processing firms who are supported by unscrupulous law enforcement officers led to the increasing number of illegal logging (Ardiyanto & Rahmadan, 2020).

Illegal logging activities were categroized as a law violation in Indonesia. It was stated on Article 94 Paragraph 1 of Law No. 18 of 2013 concerning Forest Prevention and Eradication. Moreover, the activity of illegal logging could also eradicate forest which was important to sustain the effect of climate for society. Therefore, the illegal logging was also violated the Article 83 Paragraph 1 Letter A and B of Law No.18 of 2013 concerning Prevention and Eradication of forest with a maximum imprisonment of 5 (five) years and a maximum fine of 2.5 billion rupiah (Khalid et al., 2019). This was done so because the declining of forest area should be cautioned. After all, it could led into natural disaster and global warming. Forest was the heart of the world which is really needed to keep the air fresh and aoid drought from heavy rain.

Islam prohibited to rob other's property. People should take other people's property through transaction according to the principle of sharia law. Illegal logging rob local people's economic prosperity from forestry production and could also led natural disasters which could damaged people's environment. It was said on the holy Qur'an surah al-Baqarah:

وَلَا تَأْكُلُوْٓا اَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ وَتُدْلُوْا بِهَآ اِلَى الْحُكَّامِ لِتَأْكُلُوْا فَرِيْقًا مِّنْ اَمْوَالِ النَّاسِ بِالْاِثْمِ وَاَنْتُمْ تَعْلَمُوْنَ ۧ

Do not eat the wealth among yourselves in a false way and (do not) take it to the judges with the intention that you may eat some of the wealth of others through sin, even though you know.

The government should enact the law more, so that the public finance would be disrupted because of the mafia act above. By doing so, government need to understand the principle of Islamic law in managing public finance, so that they will make sure that there was no authrity involved in such evil acts (Linkie et al., 2014).

Different from what the local authorities in Indonesia to owners of illegal logging companies, when Umar Ibn Khattab was reign, the Bait Al Maal property is considered "the property of the Muslims" while the caliph and his amil-amil are only trust holders. So, it is the responsibility of the State to provide continuous benefits for widows, orphans, abandoned children, finance the burial of the poor, pay the debts of the bankrupt, pay diyat for certain cases and to provide interest-free loans for commercial purposes (Jaeni & Basuki, 2020).

During the reign of Uthman too, the vast land owned by the Persian royal family was taken over by Umar, but he kept it as undivided State land. Meanwhile, Uthman distributed it to individuals for reclamation and contributions as part of the processing to Baitul Maal. It is reported that this land at the time of the caliph Umar bin Khattab earned Nine million dirhams, but during the time of Uthman bin Affan when the land had been distributed to individuals the revenue had increased to fifty million. In the next period he also allowed to exchange the land for land in the Hijaz and Yemen, while Umar's policy was not so. Uthman never act by robbing land by force to seize profit (Jassim, 2021).

When Umar became governor, Umar Ibn Abdul Azis focused on handling many cases of looting money from the community so that it could return to the hands of its owners, especially by the previous rulers. In addition, those who have greater wealth are required to pay zakat annually, for the sake of equitable distribution of wealth in society. Another area that Umar Ibn Abd Al Azīz focuses on in his struggle is the eradication of corruption through the annihilation of sources of bribery and the inappropriate allocation of natural resources (Liebl, 2009).

The importance of acquiring wealth that comes from one's own business was conveyed by the Prophet Muhammad as a hadith narrated by Bukhari, namely "There is no better food for a person than the food he earns from his sweat" (Barhi, 2017). In addition, Rasulullah SAW encouraged Muslims to do business as traders, because nine out of ten doors of sustenance are from trade (Walbridge, 2010). The suggestion to establish brotherly ties through friendship was also emphasized by the Prophet Muhammad. As the hadith says "Whoever wants to increase his sustenance and live long, must stay in touch with relatives." (H.R Bukhari).

6. Conclusion

Based on the result above, this study found out that there was no significant effect of output of palm oil and roundwood toward gross national income of Indonesia. there was a significant effect of gold production toward gross national income. The reason was because gold was the exchange value that was more stable than money and stocks. the more a country preserve gold, the stable it become when the economic turmoil or unexpected thing happened which needs government savings.

Palm oil plantation create waste to the water which could affect local people, especially toward their agricultural land. It palm oil plantation also need to cut down a huge area of forest which could led to the natural disaster such as flood for local people. Roundwood coniferous output in Indonesia also supplied by the illegal logging activities, although not all of them supplied with the same method. Those things were not appropriate according to the maqashid principle because it would create loss for other people for the sake of personal benefit.

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