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POVERTY IN THE SERIBU ARCHIPELAGO, INDONESIA: IS SINGLE-DIMENSIONAL POVERTY MEASUREMENT ENOUGH?

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Abstrak: *Seberapa besar perbedaan antara berbagai pengukuran kemiskinan? Meskipun telah banyak dibahas dalam literatur akademis, pertanyaan tersebut belum pernah dianalisis secara empiris. Untuk memberikan bukti empiris, penelitian ini melakukan survei di Kepulauan Seribu, Indonesia, terhadap kemiskinan berdimensi tunggal moneter, kemiskinan berdimensi jamak moneter, dan kemiskinan non-moneter dengan jumlah sampel sebanyak 636 orang. Dengan melakukan survei terhadap tiga pengukuran kemiskinan, analisis ini menemukan bahwa terdapat perbedaan yang signifikan terhadap jumlah penduduk yang dikategorikan sebagai penduduk miskin. Karena hasil survei ini mendukung pemahaman teoritis mengenai isu-isu yang lebih luas mengenai kemiskinan dan kebijakan pemerintah, paper ini merekomendasikan pembangunan pengukuran kemiskinan yang komprehensif, tidak hanya mengandalkan pendekatan moneter satu dimensi.*

Kata Kunci: *kemiskinan moneter berdimensi tunggal; kemiskinan moneter berdimensi jamak; kemiskinan non-moneter; Kepulauan Seribu, Indonesia;*

Abstract: How much does the difference between various poverty measurements? Though has been discussed in the academic literature, that question has never been analysed empirically. To provide the empirical evidence, this paper conducted a survey in the Seribu Archipelago, Indonesia, on the monetary single-dimensional poverty, the monetary multi-dimensional poverty, and nonmonetary poverty with 636 sample. Providing survey of three poverty measurements, this analysis found that there was significant difference on the number of people categorised as the poor. Because this survey result supports theoretical understanding of broader issues of the poverty and government policy, this paper recommends the construction of comprehensive poverty measurement, not just relying on the monetary single-dimensional approach.

Keywords: monetary single-dimensional poverty; monetary multi-dimensional poverty; nonmonetary poverty; the Seribu Archipelago, Indonesia;

I. INTRODUCTION

The Indonesian government measures poverty through relying mainly on monetary single-dimensional poverty, namely by calculating how much in Rupiah (Indonesia's currency) of a person's expenses for meals and drinks in order to be able to live decently (BPS, 2024:7). However, poverty is not only about monetary single-dimensional approach but also about monetary multi-dimensional approach or even nonmonetary approach. Principally, programs to alleviate poverty in Indonesia has adopted the concepts of poverty as multi-dimensional approach and nonmonetary approach. However, the Indonesian Statistics Bureau (Badan Pusat Statistik, BPS) as the official state agency which release the poverty data simply uses single-dimensional

poverty measurement.

Based on broadly accepted concept, monetary approach focuses on expenditure or income deprivation underneath a particular poverty line, while nonmonetary approach does not rely only on income or expenditure (Maxwell, 1999:1). Moreover, single-dimensional approach is depended on one indicator of poverty line and multi-dimensional approach is for more than one indicators (Barnes et al., 2017:11).

In light of that matter, this paper conducts a survey in the Seribu Archipelago, Indonesia, to arrange measurements of monetary multi-dimensional poverty and nonmonetary poverty, and then compares them with the monetary single-dimensional poverty measurement to understand how much the current poverty measurement miss to capture the monetary multi-dimensional poverty and nonmonetary poverty.

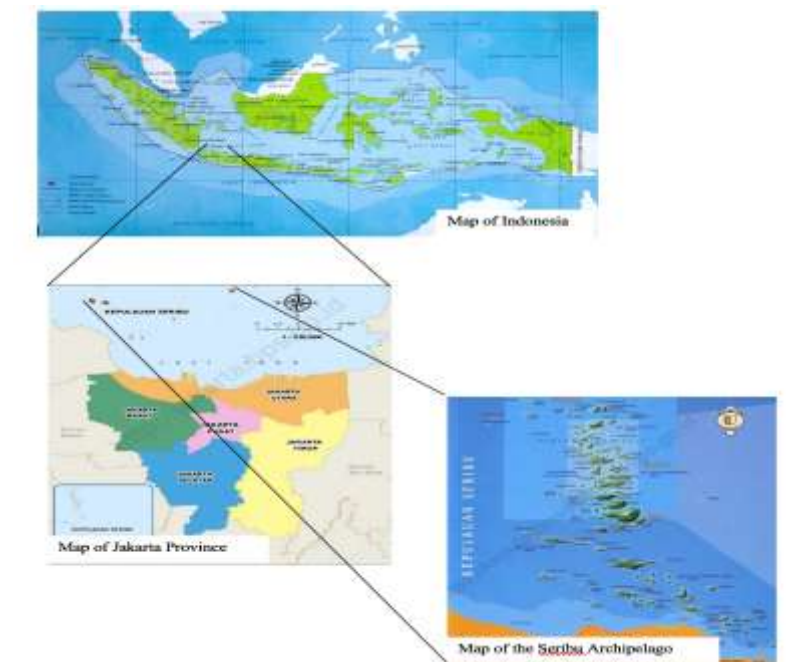


Fig. 1 Map of the Seribu Archipelago. Source: BPS 2024.

The Seribu Archipelago is a district with two subdistricts and six urban villages of the Jakarta, the capital province of Indonesia, which is located in the north area of Jakarta (see Figure 1) with 342 islands and 45 km of its long coastline. That geographic conditions then impact on the job types of the Seribu Archipelago's people, in which about 55 percent of the total population employ (23,876 people) in jobs which relates with fishing (BPS, 2024:86).

In comparison with other areas of Jakarta, the Seribu Archipelago is the least poor area, where it simply contributes 0.2 percent to the Jakarta's economy (Bank Indonesia, 2016:1). Very different images can be felt between the Seribu Archipelago with its simple physical development and the least budget allocation, and the other Jakarta's areas with their modern physical development and high budget allocation.

This paper has significant theoretical contributions, namely to continue the previous work

of Laderchi et al. (2003:1) on comparing among the four poverty approaches – participatory, social exclusion, capability, and monetary approaches. They analyse the poverty approaches by focusing on the conceptual and theoretical underpinnings and the consequences on their measures, operationalisations, poverty targeting, and policy impacts. This paper becomes the empirical evidence of that academic work, but with different poverty approaches used.

In the following sections, this paper introduces the research method and data set. This paper then discusses the results of the survey in the Seribu Archipelago and compares among the poverty measurements.

II. LITERATURE REVIEW

Monetary and Multidimensional Poverty

Monetary poverty and multidimensional poverty represent two distinct yet interrelated frameworks for understanding deprivation. Monetary poverty typically refers to a lack of sufficient income or resources to meet basic needs, while multidimensional poverty encompasses a broader spectrum of deprivations, including education, health, and living standards. This literature review synthesizes findings from various studies to elucidate the nuances of both single-dimensional and multiple-dimensional poverty. Monetary poverty is often measured through income-based indicators, which provide a straightforward assessment of an individual's or household's financial status. However, this approach has been criticized for its inability to capture the complexities of poverty. For instance, propose a dynamic framework for measuring poverty that accounts for temporal variations in income, suggesting that static measures may overlook critical aspects of deprivation over time (Gradín et al., 2011). Similarly, studies have shown that monetary poverty does not adequately reflect the lived experiences of marginalized groups, such as individuals with disabilities, who may face additional barriers that are not captured by income alone (Park & Nam, 2019; Banks et al., 2021).

The interplay between monetary and multidimensional poverty is particularly evident in studies that explore their complementary nature. Research by and Notten indicates a significant mismatch between the two measures, with monetary poverty often failing to capture individuals who are multidimensionally deprived (Roelen & Notten, 2013). This discrepancy underscores the importance of integrating both approaches to develop targeted interventions. For instance, found that ethnic minorities in Laos were only identified as poor when using a multidimensional measure, emphasizing the need for policies that consider both income and non-income deprivations (Bader et al., 2016). Furthermore, the relationship between monetary poverty and subjective well-being has been explored in various contexts. 's study in Bangladesh found that improvements in multidimensional poverty indicators positively correlated with happiness, suggesting that addressing non-monetary aspects of poverty can enhance overall well-being (Tauseef, 2021). This aligns with the findings of , who argue that a multidimensional perspective

on poverty can provide deeper insights into the lived experiences of individuals, particularly in developing countries (Machado et al., 2014). In summary, while monetary poverty provides a critical lens for understanding financial deprivation, it is essential to recognize its limitations. Multidimensional poverty frameworks offer a more nuanced understanding of the various factors that contribute to poverty, enabling policymakers to design more effective interventions. The integration of both approaches can lead to a more comprehensive understanding of poverty and ultimately contribute to more effective poverty alleviation strategies.

Poverty Measurement using Multidimensional Framework

The way we measure poverty has changed a lot over the years, moving beyond the simple idea of not having enough money (Bartlett et al., 2014). Traditionally, poverty was seen mainly as a lack of income, with tools like the poverty line used to determine if people could afford their basic needs. However, as time has passed, researchers and policymakers have realized that poverty is about more than just money. Many aspects of life, such as health, education, and access to basic services, also play a crucial role in determining whether someone is truly deprived (Suparmi et al., 2018; Busch & Amarjargal, 2020). This realization has pushed the conversation toward measuring poverty in more multidimensional ways, capturing the full picture of what it means to live in poverty.

The multidimensional poverty framework has gained popularity because it paints a more complete picture of poverty by looking at various factors that affect people's lives. Someone might earn enough to survive but still struggle if they don't have access to healthcare, education, or clean water (Schenck et al., 2020). This approach recognizes that poverty isn't just about income but also about missing out on opportunities that allow people to live a fulfilling life. The Multidimensional Poverty Index (MPI) is one example of a tool that combines multiple indicators to better reflect the real struggles people face, providing a clearer, more human-centered understanding of poverty. MPI incorporate various indicators to provide a more holistic view of poverty. The MPI, developed by , employs a dual-cutoff approach to identify individuals who are deprived in multiple dimensions simultaneously (Alkire & Foster, 2011). This method has been widely adopted by governments and organizations, including the United Nations Development Programme, to assess poverty more comprehensively (Banks et al., 2021; Omar, 2023). For example, highlights that transitions out of poverty are more frequent among those experiencing multidimensional poverty, suggesting that addressing multiple deprivations can facilitate more effective poverty alleviation strategies (Roelen, 2017).

Another advantage of multidimensional poverty measurements is that they can be tailored to fit different contexts (Dörffel & Schuhmann, 2022). For example, in rural communities, having access to clean water or agricultural land might be more important for assessing poverty than it would be in a city, where housing or job opportunities might take precedence (Morgado-Ramirez et al., 2020; Zhou & Wang, 2021). This flexibility means that poverty can be understood in ways

that are more relevant to the lived experiences of people in different regions or cultural settings, making it easier for governments and organizations to create effective, targeted interventions (Silver et al., 2022). There's also debate about whether we should include subjective feelings of well-being—how people feel about their own situations—in these measurements. Even though it makes understanding poverty more complex, the multidimensional approach helps us see the real-life impacts of deprivation in a way that traditional measures cannot (Runtuboi et al., 2021). It reminds us that poverty is not just about income; it's about the many different barriers people face in their daily lives, and addressing those barriers requires a deeper, more thoughtful approach.

III. RESEARCH METHODS

This paper uses quantitative method by relying on survey to construct monetary multi-dimensional measurement and nonmonetary measurement, then they are compared with monetary single-dimensional measurement in the Seribu Archipelago, Indonesia. To conduct the comparison, this paper uses headcount ratio (proportion), poverty gap (depth), and poverty gap index to analyse both monetary single and multi-dimensional poverty; and uses headcount ratio to analyse nonmonetary poverty.

This paper draws sample by using stratified random sampling from the population in the BPS data which was 15,641 (people with age more than 17 years old). By using Isaac and Michael's sampling formula with 1 percent of its margin of error, the total sample is 636 people (see Table 1).

Table 1. Population and Sample

Urban Village	Total Population	Sample
Untung Jawa	3616	147
Tidung	4454	181
Pari	1442	59
Harapan	1846	75
Kelapa	2810	114
Panggang	1473	60
Total number	15641	636

Jobs of the sample were diverse, but most of them were still related with fisheries (see Table 2), namely 588 (92 percent) out of 636 people have jobs on fisherman, trader, entrepreneur, and service. Income of the total sample was more than 72 percent (526 people) under Rp 3,000,000 (see Table 2).

Table 2. Respondents' Economic Background

Economic Background	Total Number	Percentage
Types of Job		
▪ Fisherman	280	44.02
▪ Trader	104	16.35
▪ Entrepreneur	75	11.79
▪ Civil	48	7.54
Servant	129	20.28
▪ Service and others		

Income per month (in Indonesia Currency, Rupiah)			
	▪	< 500,000	33
	▪	500,000 –	122
999,000			198
	▪	1,000,000 –	109
1,999,000			64
	▪	2,000,000 –	110
2,999,000			
	▪	3,000,000 –	
3,999,000			
	▪	> 4,000,000	

Three steps are conducted, for the first, in doing the monetary multi-dimensional poverty measurement, seven indicators are applied, namely meals and drinks (11 sub-indicators), clothes (13 sub-indicators), housing (26 sub-indicators), education (two sub-indicators), health (nine sub-indicators), transportation (two indicators), and holiday and saving (two indicators).

The second, in terms of the monetary single-dimensional poverty measurement, this paper uses \$2 as the threshold which was the official Indonesian's threshold.

Finally, to do the nonmonetary poverty measurement, this paper uses participatory approach or asks the sample about their conditions. This paper adopts the nine indicators of Gross National Happiness of Bhutan which consists of psychological well-being (four sub-indicators), health (five sub-indicators), time use (two sub-indicators), education (four sub-indicators), cultural diversity and resilience (four sub-indicators), good governance (four sub-indicators), community vitality (four sub-indicators), ecological diversity and resilience (four sub-indicators), and living standards (three sub-indicators). As the indicators include religion, it is really relevant with the Indonesia, particularly the Seribu Archipelago which is a religious nation.

The questions of the participatory approach are measured by survey using Likert scale, namely 5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree (Hills & Argyle, 2002:1073). The results of every sub-indicator in an indicator will be totalled to receive a total score then compare it with ideal score (score if all people choose strongly agree). To understand the total score which is compared by the ideal score, this paper constructs a new scale based on the Likert scale, namely very good, good, enough, poor, and very poor.

IV. RESULTS AND DISCUSSIONS

Survey Findings

Monetary Multi-dimensional Poverty Line

The data which was received on this monetary multi-dimensional poverty survey slightly varied among the six urban villages. This paper, therefore, tries to capture completely, by illustrating the survey data on each urban village, then counts the average number for the Seribu Archipelago.

Findings of this survey in the Table 3 show that among the six urban villages, the highest monetary multi-dimensional poverty line is on the Panggang urban village, namely Rp 2,792, 542 and the lowest monetary multi-dimensional poverty line is on the Tidung urban village, namely 2,309,341. In between of the highest and the lowest, consecutively, monetary multi-dimensional poverty lines of the others are Kelapa urban village with Rp 2,723,005, Pari urban village with 2,715,136, Untung Jawa urban village with Rp 2,657,086, and Harapan urban village with Rp 2,624,172. Based on those monetary multi-dimensional poverty lines of the six urban villages, thus on average monetary multi-dimensional poverty line of the Seribu Archipelago is Rp 2,636,880. In consequence, every person who has income per month underneath the monetary multi-dimensional poverty line will be categorized as a poor.

Table 3. Monetary Multi-dimensional Poverty Line

Conditions	Number in Rupiah (per month)
Untung Jawa Urban Village	
▪ meals and drinks	1,046,000
▪ clothes	163,750
▪ housing	707,153
▪ education	25,500
▪ health	129,250
▪ transportation	450,000
▪ holiday and saving	135,433
▪ Total number	2,657,086
Tidung Urban Village	
▪ meals and drinks	1,174,400
▪ clothes	204,167
▪ housing	534,882
▪ education	1,500
▪ health	55,222
▪ transportation	290,000
▪ holiday and saving	49,170
▪ Total number	2,309,341
Pari Urban Village	
▪ meals and drinks	770,550
▪ clothes	215,033
▪ housing	904,829
▪ education	42,000
▪ health	66,153
▪ transportation	580,000
▪ holiday and saving	136,571
▪ Total number	2,715,136
Harapan Urban Village	
▪ meals and drinks	851,917
▪ clothes	193,306
▪ housing	659,509
▪ education	41,083
▪ health	64,125
▪ transportation	750,000

	▪	holiday and saving	64,232
	▪	Total number	2,624,172
Kelapa Urban Village			
	▪	meals and drinks	829,800
	▪	clothes	160,722
	▪	housing	932,424
	▪	education	42,000
	▪	health	44,667
	▪	transportation	580,000
	▪	holiday and saving	133,392
	▪	Total number	2,723,005
Panggang Urban Village			
	▪	meals and drinks	693,028
	▪	clothes	140,361
	▪	housing	1,589,632
	▪	education	36,188
	▪	health	53,833
	▪	transportation	180,000
	▪	holiday and saving	99,500
	▪	Total number	2,792,542
On Average for The Seribu Archipelago			
			894,283
	▪	meals and drinks	179,557
	▪	clothes	888,072
	▪	housing	31,379
	▪	education	68,875
	▪	health	471,667
	▪	transportation	103,050
	▪	holiday and saving	2,636,880
	▪	Total number	

Monetary Single-Dimensional Poverty Line

This part explains the existing monetary single-dimensional poverty line which was used by the Indonesian Statistical Bureau (Badan Pusat Statistik, BPS). The existing single-dimensional poverty line was Rp 520,073. The poverty line was based on the Indonesian national survey (Survey Sosial Ekonomi Nasional, Susenas). Susenas is periodical survey conducted by the Indonesian government through BPS every year in March and September to capture the people's social and economic conditions. Sample of Susenas is 300,000 households and its results will be illustrated on the national level and the provincial level.

Nonmonetary Poverty Survey

Findings on the nonmonetary poverty survey by using participatory approach in the Table 4 explain that the indicator of Psychological-well shows good sign at score of 10273 (80.76 percent). The condition of Health indicator has good sign at score 10058 (79.07 percent). The variable Time Use is at score of 4653 (73.16 percent) which is good. The Education dimension, the Cultural Diversity and Resilience dimension, and the Community Vitality dimension are at

very good level with score respectively of 10583 (83.19 percent), 10710 (84.19 percent), and 10803 (84.92 percent). The score of Good Governance is 9609 (75.54 percent) which shows good level. The percentage of Ecological Diversity and Resilience is 78.12 percent from the score of 9938 which illustrates good level, so do the variable Living Standards which have good level at score of 6912 (72.45 percent).

Table 4. Nonmonetary Poverty Survey by using Participatory Approach

Dimensions	Score	Ideal score	Percentage
Psychological-well	10273	12720	80.76
Health	10058	12720	79.07
Time Use	4653	12720	73.16
Education	10583	12720	83.19
Cultural Diversity and	10710	12720	84.19
Resilience	9609	12720	75.54
Good Governance	10803	12720	84.92
Community Vitality	9938	12720	78.12
Ecological Diversity and	6912	12720	72.45
Resilience			
Living Standards			
Total	83539	114480	78.76

Discussion

Comparing between the monetary multi-dimensional poverty line of the Seribu Archipelago and the sample, this paper found that the headcount ratio – proportion of how many people with income below the poverty line – is 66.52 percent, namely 441 people out of 636 sample have income underneath the monetary multi-dimensional poverty line are, in other words, the 441 people is poor based monetary multi-dimensional poverty approach.

The Figure 2 shows that the poverty gap is Rp 964,480, which means that the average amount to lift the poor people to reach the monetary multi-dimensional poverty line is Rp 964,480 or Rp 613,409,080 in total. The poverty gap index is 0.3657 (36.57 percent), which means that, as a share of the monetary multi-dimensional poverty line, the average amount to lift the poor people to reach the poverty line is 37 percent, namely Rp 2,636,880 times 36.57 percent is Rp 964,480 in average.

In comparison with the monetary multi-dimensional poverty line, headcount ratio, poverty gap, and poverty gap index of monetary single-dimensional poverty line are really different with the monetary multi-dimensional poverty line. Comparing between the monetary single-dimensional poverty line of the Seribu Archipelago and the sample, the proportion of how many people with income below the monetary single-dimensional poverty line (headcount ratio) is 10.69 percent. The percentage means that income of the 68 people out of 636 sample is below the monetary single-dimensional poverty line or they are poor based on the monetary single-dimensional poverty.

Limitations of Monetary Poverty Measures

The literature review highlights the limitations of using solely monetary measures to assess poverty. While income-based indicators provide a straightforward assessment, they fail to capture the full complexity of poverty experiences. As noted in the review: "Monetary poverty is often measured through income-based indicators, which provide a straightforward assessment of an individual's or household's financial status. However, this approach has been criticized for its inability to capture the complexities of poverty."

This criticism is supported by research showing that static income measures may overlook important aspects of deprivation "Gradín et al. (2011) propose a dynamic framework for measuring poverty that accounts for temporal variations in income, suggesting that static measures may overlook critical aspects of deprivation over time."

The Case for Multidimensional Poverty Measures

In contrast to single-dimensional monetary measures, the review emphasizes the benefits of multidimensional poverty frameworks. These approaches provide a more holistic view of poverty by incorporating various indicators beyond income.

The Multidimensional Poverty Index (MPI) is highlighted as a key tool in this approach namely The MPI, developed by Alkire & Foster (2011), employs a dual-cutoff approach to identify individuals who are deprived in multiple dimensions simultaneously. This method has been widely adopted by governments and organizations, including the United Nations Development Programme, to assess poverty more comprehensively (Banks et al., 2021; Omar, 2023).

The effectiveness of multidimensional measures is further supported by research showing their impact on poverty alleviation strategies. Roelen (2017) highlights that transitions out of poverty are more frequent among those experiencing multidimensional poverty, suggesting that addressing multiple deprivations can facilitate more effective poverty alleviation strategies.

Mismatch Between Monetary and Multidimensional Poverty

The review points out a significant discrepancy between monetary and multidimensional poverty measures, emphasizing the importance of integrating both approaches. Research by Roelen & Notten (2013) indicates a significant mismatch between the two measures, with monetary poverty often failing to capture individuals who are multidimensionally deprived. This discrepancy underscores the importance of integrating both approaches to develop targeted interventions. Bader et al. (2016) found that ethnic minorities in Laos were only identified as poor when using a multidimensional measure, emphasizing the need for policies that consider both income and non-income deprivations."

Impact on Subjective Well-being

The literature review also touches on the relationship between multidimensional poverty measures and subjective well-being "Tauseef's (2021) study in Bangladesh found that

improvements in multidimensional poverty indicators positively correlated with happiness, suggesting that addressing non-monetary aspects of poverty can enhance overall well-being."

This finding aligns with broader research on the importance of multidimensional perspectives "Machado et al. (2014) argue that a multidimensional perspective on poverty can provide deeper insights into the lived experiences of individuals, particularly in developing countries."

Implications for Policy and Research

The literature review concludes by emphasizing the importance of integrating both monetary and multidimensional approaches for a more comprehensive understanding of poverty "While monetary poverty provides a critical lens for understanding financial deprivation, it is essential to recognize its limitations. Multidimensional poverty frameworks offer a more nuanced understanding of the various factors that contribute to poverty, enabling policymakers to design more effective interventions." This integrated approach is seen as crucial for developing effective poverty alleviation strategies:"The integration of both approaches can lead to a more comprehensive understanding of poverty and ultimately contribute to more effective poverty alleviation strategies."

$$\begin{aligned} \text{Poverty gap} &= (\text{poverty line} - \text{income below the poverty line}) + (\text{poverty line} - \text{income below the poverty line}) \text{ and so on} = Z/\text{population} = (520,073 - 300,000) + (520,074 - 500,000) + (520,075 - 500,000) + (520,076 - 500,000) + (520,077 - 500,000) + (520,078 - 500,000) + (520,079 - 500,000) + \\ &+ (520,080 - 500,000) + (520,081 - \text{Rp}500,000) + (520,082 - \text{Rp}500,000) + (520,083 - 500000) + (520,084 - 500000) + (520,085 - 300000) + (520,086 - \text{Rp}300,000) + (520,087 - 500,000) + (520,088 - 500,000) + (520,089 - 150,000) + (520,090 - 400,000) + (520,091 - 500,000) + (520,092 - 300,000) + \\ &+ (520,093 - 500,000) + (520,094 - 400,000) + (520,095 - 500,000) + (520,096 - 300,000) + (520,097 - 500,000) + (520,098 - 500,000) + (520,099 - 300,000) + (520,100 - 500,000) + (520,101 - 400,000) + (520,102 - 500,000) + (520,103 - 500,000) + (520,104 - 400,000) + (520,105 - 400,000) + \\ &+ (520,106 - 300,000) + (520,107 - 500,000) + (520,108 - 300,000) + (520,109 - 100,000) + (520,110 - 500,000) + (520,111 - 250,000) + (520,112 - 500,000) + (520,113 - 300,000) + (520,114 - 250,000) + (520,115 - 500,000) + (520,116 - 400,000) + (520,117 - 300,000) + (520,118 - 400,000) + \\ &+ (520,119 - 300,000) + (520,120 - 300,000) + (520,121 - 100,000) + (520,122 - 400,000) + (520,123 - 500,000) + (520,124 - 200,000) + (520,125 - 300,000) + (520,126 - 500,000) + (520,127 - 500,000) + (520,128 - 500,000) + (520,129 - 100,000) + (520,130 - 500,000) + (520,131 - 500,000) + \\ &+ (520,132 - 100,000) + (520,133 - 300,000) + (520,134 - 500,000) + (520,135 - 500,000) + (520,136 - 500000) + (520,137 - 400000) + (520,138 - 300000) + (520,139 - 500000) + (520,140 - 300000) = 8,217,242/636 = 12,920 \\ \text{Poverty Gap Index} &= \text{Poverty Gap/Poverty Line} = 12,920/520,138 = 0.0248 \text{ (2.48 percent)} \end{aligned}$$

Fig 3. Calculation of Poverty Gap and Poverty Gap Index of Monetary Single-dimensional Poverty Line

The Figure 3 illustrates how depth the poverty of the 68 people. The poverty gap is Rp 12,920, which means that the average amount to lift the poor people to reach the monetary single-dimensional poverty line is Rp 12,920 or Rp 8,217,242 in total. The poverty gap index is 0.0248 (2.48 percent), which means that, as a share of the monetary single-dimensional poverty line, the average amount to lift the poor people to reach the poverty line is 2.48 percent, namely Rp 520,073 times 2.48 percent is Rp. 12,920 in average.

On nonmonetary poverty survey, it is really different with the previous two measurements. Total score of the participatory approach survey is 83539 out of 114480, in which it means that all 636 people are in good condition (see Table 4). The arguments of all respondents are that they are really grateful with their life and receive sincerely what sort of their life is.

Comparing all three poverty measurements, therefore, there are 373 poor people according to the monetary multi-dimensional poverty measurement which are not included as poor category according to the monetary single-dimensional poverty measurement. Moreover, 441 people according to the monetary multi-dimensional poverty measurement and 68 people according to the monetary single-dimensional poverty measurement are not included as poor category according to the nonmonetary poverty measurement with participatory survey approach.

Based on the empirical analysis toward the three measurements, this paper argues that the current poverty measurement (monetary single-dimensional poverty approach) of the Indonesian government, especially in the Seribu Archipelago is not enough to capture the poverty. The current poverty measurement, for the least, needs to be collaborated with the monetary multi-dimensional poverty measurement and nonmonetary poverty measurement. Therefore, the government can capture the Indonesian poverty comprehensively, and consequently, it can help to formulate robust policies in terms of tackling poverty in the Seribu Archipelago, Indonesia.

V. CONCLUSION

This paper conducts a survey to analyse how much difference between the official poverty measurement of the Indonesian government and the other two poverty measurements in the Seribu

Archipelago. Based on the analysis of comparing the three poverty measurements on the 636 sample, this paper provides descriptive empirical evidence that there were significant differences in terms of the number of the poor among the measurements of the monetary single-dimensional poverty, the monetary multi-dimensional poverty, and nonmonetary poverty.

As discussed, the monetary single-dimensional poverty measurement had lower headcount ratio (10.69 percent) than the headcount ratio of the monetary multi-dimensional poverty measurement (66.52 percent). So do the poverty gap and poverty gap index, in which the monetary multi-dimensional poverty measurement needed much higher to lift the poor for reaching the poverty line, namely Rp 964,480 or Rp 613,409,080 in total (36.57 percent), than the monetary single-dimensional poverty measurement which simply needed Rp 12,920 or Rp 8,217,242 in total (2.48 percent). Moreover, the nonmonetary poverty measurement with participatory approach illustrated that the 636 sample were in good condition or they were not poor, while the monetary single-dimensional poverty measurement and the monetary multi-dimensional poverty measurement showed the number of the poor which still existed.

All in all, these findings not only had complemented theoretically the previous academic work by providing an empirical evidence but also put a reminder for the Indonesian government, particularly the Seribu Archipelago, to implement comprehensive poverty measurements, not just using the monetary single-dimensional approach. So, that implementation is able to help to make robust policies for alleviating the poverty.

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