Analysis of the improvements in the land value zone and revenue from rural and urban property taxes in North Sumatera and Aceh Provinces, Indonesia

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Abstract. Based on Law Number 28 the year 2009, as of January 1, 2011, the Government of Indonesia transferred the stipulation and collection of Rural and Urban Property Taxes (PBB-P2) from central tax to regional taxes. Revenue from these taxes will be grouped as Regional Original Revenues so that its finance can be strengthened. The problem is that until now, many regions have not been able to improve their Land Value Zone (ZNT) to market value. Even though based on this ZNT the tax object sales value (NJOP) will be determined. The NJOP multiplied by the tax rate will become the amount of PBB-P2 taxes that must be paid.

This research examines 17 districts in North Sumatra and Aceh Provinces to find out what are the problems in improving ZNT and imposing taxes. Data obtained from in-depth interviews were analyzed to reach general conclusions. The results obtained from the districts in North Sumatra and Aceh Provinces showed that the determination of ZNT that was close to market value could not be done due to lack of the ability of a community to pay, politics, ability to appraise, and social culture problems; so no differences between the two provinces. It is hoped that the government can overcome the problems.

1. Introduction

Financial strength is an important factor for a local government [1]. Shah [2] said that the concept of fiscal decentralization presents an opportunity to reinforce the local government. The decentralization has caused local governments to prepare appraisers and determine the market value of the land. The property taxes mentioned in this study are Rural-Urban and Building Taxes (PBB-P2).

The land value zone of each region is sent by the central government to the local government so that local governments can use it and then can update the data. Land value zone will determine tax object sales value (NJOP) for land. According to Law Number 28 the year 2009, NJOP is the average price of fair transactions. Saulius [3] also said that the calculation of the value of land tax should be used in the average market value in the zone value obtained after the mass appraisal procedure. NJOP multiplied by the tax rate will determine the amount of tax that must be paid by the taxpayer after considering other factors.

Land value is undoubtedly an important consideration in decisions affecting zoning, both for fiscal zoning and externality zoning [4]. Land value map is important in mass appraisal to determine property taxes [5], [6], [7]. Mass appraisal is the process of valuing a group of properties on a certain date and using market data, statistical testing, and standard methods. A parcel’s value was determined by developing a mathematical analysis of market data [8].
The problem now is the land value zone at districts in North Sumatra and Aceh Province have not been reflecting market value. Even in the Medan City, the capital of North Sumatra, which has a better appraisal process, NJOP is set at only 40 percent of its market value. What causes land value zone cannot be improved as much as the market value so that tax revenues will also increase?

2. Method
This study uses a qualitative with descriptive analysis. The population is districts in North Sumatra and Aceh Provinces. There are 22 districts in North Sumatra and 17 districts in Aceh; as many as 8 sample districts from North Sumatera, i.e Pematang Siantar, Labuhan Batu, Batu Bara, Tapanuli Tengah, Serdang Bedagai, Simalungun, Tanjung Balai, and Deli Serdang. and 9 from Aceh, i.e. Singkil, Aceh Barat Daya, Bireuen, Gayo Lues, Subulussalam, Aceh Tengah, Langsa, Aceh Utara, and Lhokseumawe. The reason for choosing these sample is because they have been improving land value zone. Employees of the Regional Revenue Management Agency who are responsible for the property taxes are interviewed in depth for the following questions:
1. How has the Land Value Zone been implemented so far?
2. How will the community react to the determination of the Land Value Zone?
3. What are the obstacles to increasing the Land Value Zone?
4. How do you suggest increasing revenue from PBB-P2?

3. Results and Discussions
3.1. Land Value Zone Implementation
Table 1 show the results of interviews regarding the application of land value zone.

|                  | Still using the previous values from the central government | Already improve land value zone, but it is still below market value |
|------------------|-------------------------------------------------------------|---------------------------------------------------------------|
| Sumatera Utara   | 37.5%                                                       | 62.5%                                                         |
| Aceh             | 22%                                                         | 78%                                                          |
| Weighted Average | 29.4%                                                       | 70.6%                                                         |

On a weighted average, as many as 29.4% of districts still use the previous value set by the central government since 2011, namely when PBB-P2 management was carried out by the Primary Tax Office. As many as 70.6% of districts have done improving land values for a portion of the area, but the improvements made are not yet in line with market values, just by multiplying them with a certain percentage. There is only one district that partners with public appraisers, but the NJOP determination has not followed market value.

3.2. Public Reaction
Table 2 shows the public reaction to the determination of the Land Value Zone.

|                  | Accept | Complain |
|------------------|--------|----------|
| Sumatera Utara   | 62.5%  | 37.5%    |
| Aceh             | 78%    | 22%      |
| Weighted Average | 70.6%  | 29.4%    |

The reaction of the people in North Sumatra districts shows that 62.5% can accept the PBB-P2 determination because the people already understand their obligations and also because of the socialization carried out to increase the value of this land and PBB-P2. As many as 37.5% of districts
received complaints from the public because of price increases, but there were also some who complained because they compared the NJOPs of different neighbors. They consider the determination of the value of this land is not fair.

The reaction of the people in Aceh shows that 78% accept the value of their land because the value does not change or the changes are small; which is below the market value. As many as 22% of communities complained that their PBB-P2 tax debt increased compared to the previous year, but eventually they could receive it after being explained by the officer.

To reduce the public's reaction to the increase in the amount of further tax, the local government should also specify specific rates for several categories such as those carried out in Lithuania. Lithuania applies the specific rate for criteria of purpose of real property, category tax payer (size, social status, and legal form), location, and technical maintenance condition [9].

3.3. Obstacles

Improvement of land values carried out by some districts is still below market value. The obstacles were a lack of ability of the community to pay, politics, ability to appraise, and social culture problems. These obstacles are not different between the two provinces. The public complained about the high increase so they were unable to pay, especially for their inherited land in business center. The tax object is expensive. On the other hand, the low increase do not face many complaints. As many as two districts in North Sumatra raised their NJOPs higher, but did socialize and provided understanding to the community so they did not complain.

Local government takes into account the ability to pay in determining land value zone. This policy is in accordance with statement Ohls [4], which states that an optimal fiscal zoning policy can be defined only concerning the community’s objectives.

A respondent from North Sumatra Province said that it was necessary to maintain a balance between economic growth and regional income. If the PBB-P2 burden is too high, the money used by the community decreases. Therefore, a policy from a local government is needed. The classic economic theory, saying that higher levels of land taxes should cause liquidity effects that would be shown through capitalization of the tax into land prices and faster rates of development and redevelopment [10].

Regent who served in the first period was afraid of getting complaints from the public if raising the NJOP. They are fear of not being re-elected in the next general elections. Regional head in Indonesia may only hold two periods. Therefore, if there is a proposal for a high increase in NJOP from officers to the regent in his / her first period, then the regent will reject it.

Public servants in the districts have not been having adequate appraise capabilities. They did not have appraisal knowledge, so recently, the central government held a ten days workshop workshop which is not enough to make them experts. As a solution, two districts contacted public appraisals and universities to partner with them to produce a quality valuation. Quality in valuation is important to clients, including the government. Government needs for property taxes and underpinning financial agreements [11].

Some people weren’t paying tax because they felt that the money will not be used for their welfare. The public will be willing to pay higher taxes if the government upheld transparency and accountability as one of the basic principles of management of regional revenues.

3.4. Suggestions for increasing revenue from PBB-P2

To increase revenue from PBB-P2 it is necessary to conduct socialization and improve taxpayer compliance. Increasing tax compliance is very necessary. Oluyumba and Olayunka [12] found that tax compliance had a significant effect on boosting tax revenue generation. They also suggest transparency in tax funds and tax benefits for public infrastructure development.

NJOP multiplied by the tax rate determines the amount of tax to be paid. When the respondent was asked for his suggestion to increase revenue from PBB-P2, whether NJOP was raised or tax rates were lowered, their answers were as follows : about 88.24% recommends that NJOP remain below market
value, meanwhile 11.76% recommends that NJOP increased at market value, but tax rates are reduced, so that revenue from this tax can be increased.

3.5. Contribution
This research has found some reasons why increasing land value zone is difficult to be implemented. El-Barmegly [13] said, variables that are affecting land use, land value, and other variables are classified into geographic, economic, environmental, social, urban, public interest, demographic, logistics, and political variables. Based on the variables, some considerations are needed in determining the land value for taxation purposes.

Regulations want a market value of land zones, but people are less willing to pay expensive taxes. If the market value cannot be applied as an NJOP, then the role of local government is needed to provide a reduction in the burden of the community without ignoring the importance of the land value zone.

4. Conclusions
The local government begins to improve the land value zone after they have the task to stipulate and collect PBB-P2. Changes in the times and environmental conditions have caused changes in the market value of land, but local governments have not been able to improve it according to market value because of the public unwilling to pay higher taxes. This is also related to political issues. The regents are reluctant to raise the NJOP in the first period of his leadership for fear of not being elected again in the next election. Another reasons that the value of ZNT is still below the market value are the lack of the ability of regional tax employees to appraise tax objects and socio-cultural problems.

Determining market value is very important - whether for tax purposes or as another reference - it is recommended that ZNT be set based on market value, but the NJOP or the tax rates charged do not burden the public. The lack of ability of regional tax employees will be overcome by partnering with the public appraisals or universities. Besides that, socialization still needs to be done so that they become more understanding.

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