



# Analysis of Factors Affecting Environmental management and Monitoring Implementation of Business and/or Activity (A Case Study The Implementation of Amdal and UKL-UPL at Padang Pariaman District)

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## ABSTRACT

Research on the factors affecting the implementation of environmental management and monitoring of business and/or activity through the implementation of Amdal and UKL-UPL at Padang Pariaman District was conducted from August to October 2017. The research method is quantitative and qualitative combination (mixed method). This research adopted the Mazmanian and Sabatier (1983) theories to identify factors affecting the implementation, including the problem of characteristic (tractability), policy and non statutory variables. The results show that the management and monitoring of the business environment and/or activities have not been implemented properly, and proven to be influenced by these three factors. Characteristics of the problem include various constraints in the implementation process. Policy characteristics include clarity of regulatory contents that govern the obligations of Environmental License holders and the application of administrative punishment, limited budget available, lack of coordination between relevant agencies, and community involvement in implementation. Non statutory variables include community support for implementation, negative business and/or activity responses to implementation objectives, and business and/or activity capabilities in the implementation process. In addition to these three factors, two other matters affecting implementation, namely communication between the business person in charge and/or activity with the environmental agency and the unclear substance of RKL-RPL in some business and/or activity.

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## 1. Introduction

Padang Pariaman is one of 19 districts/ cities in West Sumatera Province with a relatively small area, which is only about 3.14% of the total provinces (The Central Statistical Agency of Padang Pariaman District, 2016). On the other hand, this district has its own distinctness, which is part of its area to support economic growth and development in Padang City (the provincial capital) and has considerable natural resource potential.

This conditions affect the development dynamics in Padang Pariaman District which is currently growing quite rapidly, indicated by the emergence of various businesses and/or activities of medium to large scale. There are 109 businesses and/or activities in this district which have Environmental Licenses, 87 of which have Amdal, eight have UKL-UPL, and 14 others have environmental documents at Amdal/UKL-UPL level (LHPKPP Services of Padang Pariaman District, 2016).

AMDAL and UKL-UPL functions as an instrument for preventing pollution and/or environmental damage has not been fully realized in Padang Pariaman Regency. In fact, during 2012-2016, there were at least 12 complaints/environmental cases submitted to the LHPKPP Services of Padang Pariaman District, and almost 50% of them were allegedly the result of business activities and/or activities that already have AMDAL or UKL-UPL. In addition, by the end of 2016 it is known that only a small number of business and/or activity (who already have AMDAL or UKL-UPL) reporters submit a report on the implementation of the Environmental License or the implementation report of the RKL-RPL regularly according to the rules.

Based on that facts, it is indicated that the implementation of management and monitoring of business environment and/or activity in Padang Pariaman District (through the implementation of Amdal and UKL-UPL) has not been implemented properly. Considering that Amdal and UKL-UPL are part of the protection and management policy of life as stipulated in Law No. 32 Year

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2009, then the process and the results of its implementation will be influenced by various factors that can not necessarily be directly identified. If these factors can be identified, then efforts and strategies for improvement can also be formulated.

The purpose of this research is to examine what key factors influence the implementation of environmental management and monitoring of businesses and/or activities (and how they roles), and to formulate efforts as a strategy to improve implementation effectiveness. Research with the context of the implementation of environmental management and monitoring has not been done in Padang Pariaman District, and has a quite specific difference compared with some previous studies of the same kind, as conducted by Shoba (2006), Irawati (2008), and Tias (2009). The differences are among others research objects covering business and/or medium and large scale activities (having Amdal or UKL-UPL), as well as research scope which is only focused on the process and implementation result after the two documents are legalized.

The existence of the formulation of efforts or strategies into one other thing that distinguishes this research with some similar research that has been done before, especially research Shoba (2006) and Tias (2009). Although the two studies also reviewed the process and outcome of the implementation of AMDAL and UKL-UPL of the business and/or activities and the factors that can influence it, they did not specifically review the specific efforts or strategies that can be done in order to improve the effectiveness of implementation.

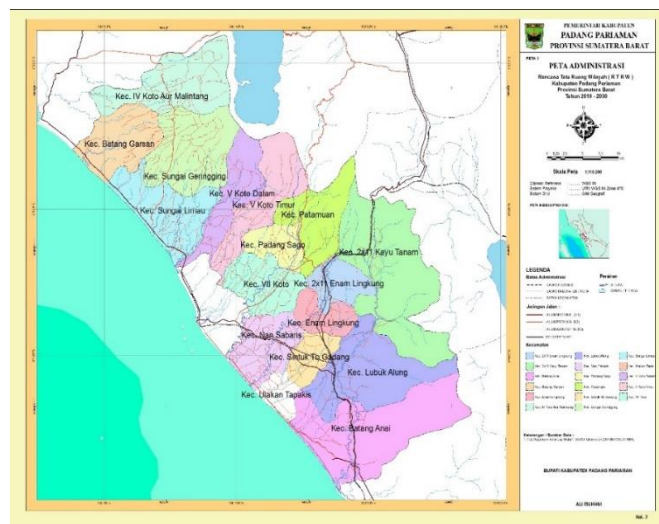
Mazmanian and Sabatier (1983) argue that implementation is the application of basic policy decisions, usually in the form of laws, but may also be important command or executive decisions or judicial decisions. Implementation is often associated with policy. Policy is the object of implementation, because all activities related to implementation are done in order to achieve the purpose of a policy. Some scholars agree that policy is a thing that can be exchanged for other terms, such as program objectives, decisions, laws, regulations, standards, proposals, and grand design (Suharno, 2010).

Indonesia's environmental management and monitoring policies are accommodated through Law No. 32 Year 2009. One of the content of this law is the obligation to have Amdal and UKL-UPL for a business and/or activity and to implement it. The passing of Amdal and UKL-UPL has consequences for the issuance of Environmental License. The business person in charge and/or activity that has the Environmental License, shall be obligated in accordance with the provisions of article 53 paragraph (1) of Government Regulation No. 27 Year 2012, and may be subject to administrative punishment (article 71) if proven to be a violation.

By looking at AMDAL and UKL-UPL from a policy perspective, factors affecting the implementation of business management and monitoring of business and/or activities are adapted from the theory of policy implementation. The selected theories are the Mazmanian and Sabatier theories (1983), as they deal more with technical issues affecting the implementation of the policy, so that the characteristics of Amdal and UKL-UPL are closely related to technical matters (Irawati, 2008) and can reveal the relationship of lead between implementors and target groups in support of policy implementation (Nofendri, 2015). According to Mazmanian and Sabatier (1983), there are three variables affecting policy implementation, i.e. problem characteristics (technical difficulties of the problem), policy characteristics (clarity of policy content, precision of allocation of financial resources, integration between implementing agencies, and outside formal access), and non statutory variables (public support for policy implementation, target group responses to policies, and implementation skills).

## 2. Materials and Methods

The object of the research is the implementation of management and monitoring of business environment and/or activity in Padang Pariaman District which already has Amdal or UKL-UPL and has operated for at least one year. The research sites are included in the administrative area of Padang Pariaman District (Figure 1).



**Figure 1.** Map of Research Location (Padang Pariaman District)  
(Research and Development Agency of Padang Pariaman District, 2017)

The method used in the research is a combination of quantitative and qualitative methods (mixed method). The merger design is a convergent parallel where both quantitative and qualitative methods are used simultaneously, in which the results of the two are linked/compared for subsequent interpretation (Creswell, 2016). Quantitative methods are used to analyze and formulate strategies for improving the effectiveness of implementation, while qualitative methods are used to obtain a clearer and deeper picture of how the process/outcome (existing conditions) and what factors influence the implementation. The nature of the research is descriptive, meaning that this research is intended to be able to provide description and explanation of data and information obtained during the study (Sugiyono, 2007).

### Data Collection

The types of data collected in this study include primary and secondary data. For quantitative methods, data collection is done through the delivery of a structured questionnaire. The data collected are variables/factors related to the person in charge of the business and/or activity as the respondent. The number of respondents is determined by stratified random sampling technique, by grouping the business and/or activity into two strata (which have Amdal and who have UKL-UPL). According to the formula of Sevilla et al (1993) in Fendeli (2002), the total number of respondents was 48 businesses and/or activities (five had Amdal and 43 had UKL-UPL).

For qualitative methods, data collection is done through observation, semi-structured interviews, and literature studies. Semi-structured interviews involve key informants determined by purposive sampling techniques. Key informants in this study

include personnel in charge of the LHPKPP Services of Padang Pariaman District and community representatives around the business location and/or activity.

#### Data Analysis

For quantitative data, the analysis is conducted to determine the existing condition of the implementation of environmental management and monitoring as well as the factors that influence it, especially those related to the party responsible for the business and/or activity. The analysis uses simple statistics as percentages (%). The results are presented in the form of diagrams or tables based on the answers of questionnaires from respondents. The data obtained is then analyzed descriptively, i.e. in the form of exposure and interpretation of how the relationship of each part and the influence of the data on the object of research. Qualitative analysis is conducted to determine the factors that affect the implementation, especially those related to external things, such as the role of supervision and community involvement. Qualitative analysis also aims to determine the extent to which the influence of each factor in contributing to the effectiveness of implementation. According to Creswell (2016), qualitative data analysis can take place in conjunction with other parts of research development, such as data collection. In the process is also known a process of 'separation' of data, the process where the focus of analysis is directed to some data and ignore other data that are considered not too influential on the formulation of the problem (Guest, MacQueen, and Namey in Creswell, 2016).

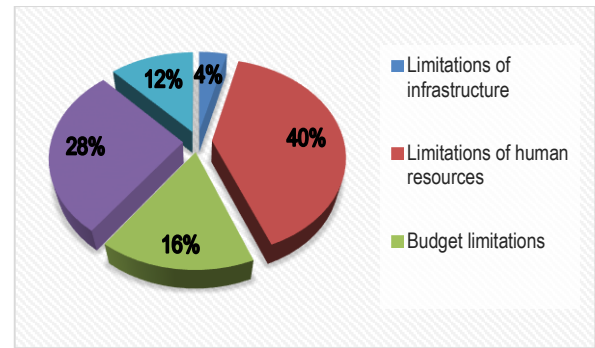
The final stages of this research are strategy formulation using SWOT method. The SWOT model framework begins by analyzing internal issues and problems including existing strengths, potentials and weaknesses as well as external issues and problems that encompass opportunities and threats enclosing them (Rangkuti, 2000). The steps include the stage of data collection, data analysis, and decision making.

### 3. Results and Discussion

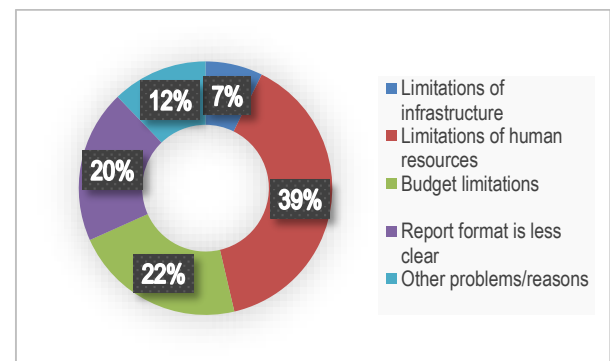
#### *The Existing Condition of Environmental Management and Monitoring*

Existing conditions of business management and monitoring of business and/or activities are reviewed from the obligations of the Environmental License holder which includes the implementation of RKL-RPL and reporting the results of its implementation. For the implementation of RKL-RPL, the research results show that from 48 businesses and/or activities, 23 of them (47.9%) have implemented all RKL-RPL items and 25 others (52.1%) have not implemented all the items. The main problem faced in the implementation of RKL-RPL is human resource constraints (Figure 2).

Related to the reporting of the implementation of RKL-RPL, it is known that only seven businesses and/or activities (14.6%) have fulfilled the obligation. The main problem faced by the party responsible for the business and/or activity in creating and delivering this report is the limited human resources (39%), both in terms of quantity and capacity. Approximately 12% of businesses or activities also state their ignorance of the obligations (Figure 3).



**Figure 2.** Percentage of Problems Faced by Business and/or Activity that have not Implemented RKL-RPL  
(The Results of Questionnaire Data Processing, 2017)



**Figure 3.** Percentage of Problems Faced by Business and/or Activity in Reporting Implementation of RKL-RPL  
(The Results of Questionnaire Data Processing, 2017)

#### *The Main Factors that Affect Implementation The Role of Problem Characteristic*

The factor studied related to the characteristics of the problem is the technical difficulties in the policy implementation process. Technical difficulties refer not only to the easy or not problems faced in the implementation process to be controlled. The more difficult the problems are controlled in the implementation process of a policy, the more difficult it will be implemented (Mazmanian and Sabatier, 1983).

From the previous description (Figure 2), it has been known that the main problem faced in the implementation of RKL-RPL is the limited human resources. In addition, other issues identified as problems are the unclear operationalization of RKL-RPL, budget problems, limited infrastructure, and others. In the preparation and submission of reports, the constraints faced are generally similar, namely human resource limitations, unclear reporting format, budget problems, limited infrastructure facilities, and ignorance of obligations (Figure 3).

LHPKPP Services of Padang Pariaman District as the government apparatus responsible for guidance and monitoring is also faced with several problems, such as limited budget and human resources. The results showed that the budget allocation at LHPKPP Services of Padang Pariaman District for the

implementation of direct guidance and monitoring activities (field review) only able to accommodate  $\pm 25$  objects of business and/or activity every year. While the total number of objects to be fostered and supervised (until the end of 2016) reaches 109 businesses and/or activities. The number of personnel in the responsible division is also limited (only seven people, including one head of division and three heads of sections), while the main task of the division is not only related to the implementation of Environmental License.

Therefore, the characteristics of the problem (technical difficulties of the problem) proved to be one of the factors affecting the implementation of management and monitoring of business environment and/or activity in Padang Pariaman District. Various types of problems encountered, both from the party responsible for the business and/or activities and government officials can certainly complicate the implementation process and affect its effectiveness.

### *The Role of Policy Characteristic*

#### 1. Clarity of policy content

Business and/or activity environmental management and monitoring policies include provisions concerning the obligations of Environmental License holders and the application of administrative punishment for violations of the Environmental License. From the perspective of LHPKPP Services of Padang Pariaman District, three items of Environmental License holder as regulated by Government Regulation No. 27 Year 2012 is quite clear and easy to understand, especially for the provisions on the implementation of RKL-RPL and reporting the results of RKL-RPL implementation. For example, in relation to the reporting, preparation and compilation it has been supported by the existence of the standard format as stipulated in the Decree of the State Minister of the Environment No. 5 Year 2005. Provisions on administrative punishment are also sufficiently clear and detailed. Especially with the support of Minister of Environment Regulation No. 2 Year 2013 which provides more details on procedures and criteria for applying administrative punishment (for each type/level of punishment).

In line with the LHPKPP Services of Padang Pariaman District, all businesses and/or activities (41.7%) that recognize the RKL-RPL implementation obligations and their reporting also recognize the clarity of the policy. In relation to the facts indicating that there are still businesses and/or activities that do not know about the obligations of the Environmental License holders, this is more due to the ignorance of the majority of business and/or activities responsible for the lack of socialization and low comprehension. Sufficiently clear that the provisions concerning the obligation and the application of administrative punishment to the holder of Environmental License should be a factor supporting the effectiveness of the implementation of the management and monitoring of the business environment and/or activity. The clearer the content of a policy, the implementation process will be easier because the implementor easily understand and translate it in real action (Mazmanian and Sabatier, 1983; Agustino, 2006).

#### 2. Accurate allocation of financial resources

The availability of financial resources in the form of funds/budgets with appropriate quantities is necessary to open the

opportunity for achieving the objectives of the implementation of a policy (Agustino, 2006). The results show that of the 48 responsible business and/or activities surveyed, 22 of them (approximately 45.8%) have allocated budgets for RKL-RPL implementation. Approximately 59.1% of the 22 businesses and/or activities are sufficient on the budget provided, or in other words the available budget can accommodate the implementation of all RKL-RPL items of business and/or activity. In contrast, another 40.9% stated that the budget was inadequate.

From the side of the government apparatus also obtained the same facts, namely the limited budget for the implementation of guidance and monitoring of business and/or activity directly. The amount of budget per year is only able to accommodate the guidance and monitoring of 22.9% of a total of 109 businesses and/or activities that have Environmental License.

#### 3. Integration between implementing agencies

This factor is important since the failure of implementation of a policy is often caused by a lack of cohesiveness between the implementing agencies involved (Mazmanian and Sabatier, 1983). Based on information from the LHPKPP Services of Padang Pariaman District, the guidance and monitoring activities of RKL-RPL implementation do not involve related technical institutions, one of them is due to budget problems. Likewise with the supervision of the business and/or activities undertaken by the relevant technical institutions, never involve environmental agencies. This shows the absence of synergy between coaching and supervision conducted by each agency.

The results of guidance and monitoring conducted by each related agency are often only followed up by the delivery of letters to the business person in charge and/or activity. There is no further coordination of matters that need to be undertaken or further coordinated with the business and/or activities. Coordination is only done when there are problems arising and faced by the business and/or activities, or there is a complaint from the community related to business and/or activities operational. Nevertheless, the follow-up and settlement efforts are carried out independently.

#### 4. Commitment of officials to policy objectives

The results of this research show that there is a good indication of the personnel of the LHPKPP Services of Padang Pariaman District towards the urgency of environmental management and monitoring policy, which includes the obligation of the environmental permit holder, the application of administrative punishment related to the violation of Environmental License, and the guidance and monitoring on the business and/or activity. The existence of commitment (or agreement) is important in the implementation of programs of a policy, especially if the commitment is in accordance with the purpose of implementation (Mazmanian and Sabatier, 1983).

The agency has sought to follow up on any findings at the time of guidance and monitoring, and to impose administrative punishment on any business and/or activity proven to be in violation. Implementation of administrative punishment imposed by the Government of Padang Pariaman District is in the form of written warning. Written warning can be applied up to three times. If there is no significant change in the third warning (still found



violations of the same intensity or more), then the application of administrative punishment will be increased to government coercion.

##### 5. Access to external parties

Approximately 30% of businesses and/or activities claim to have involved the community in the implementation of several RKL-RPL items, such as air pollution control through reforestation activities around the business location and/or activities and affected settlements, compensation due to community land acquisition on construction phase, and others. The communities involved are generally village heads, community leaders, and community members' representatives. This fact indicates a positive development in terms of community involvement, as some previous studies, such as those of Shoba (2006) and Tias (2009), suggest that some communities have no access to be involved in the implementation of the management and monitoring of the business environment and/or activities.

The existence of community involvement can also be seen from their response to an indication of problems that occur related to business activities and/or activities. The community spontaneously submits a complaint to the LHPKPP Services of Padang Pariaman District or any objections (complaints) to the business party and/or activity concerned.

##### *The Role of Non Statutory Variables*

###### 1. Public support for policy implementation

Based on the results of interviews with community representatives around the 48 locations of businesses and/or activities, they generally responded positively to the environmental management and monitoring policies applied to the responsible business and/or activities through the implementation of Amdal and UKL-UPL. Communities acknowledge that environmental management and monitoring should be undertaken in order to control the environmental impacts arising from such business operational and/or activities.

Positive response is also given by the village heads as community leaders and the extension of the Padang Pariaman District Government. A number of village heads showed their support to the implementation by fulfilling the request of LHPKPP Services of Padang Pariaman District to jointly conduct field verification related to handling a complaint of environmental cases. They also declare a willingness to participate in supporting any environmental management and monitoring efforts undertaken by businesses and/or activities, to the extent that they do not conflict with applicable rules. This can certainly support the effectiveness of implementation because the success of a policy desperately needs community support in its implementation in the field (Mazmanian and Sabatier, 1983; Agustino, 2006).

###### 2. Response of the target group to the policy

Based on the research result, it is known that there are seven businesses and/or activities that do not know at all the item of the obligation of the holder of Environmental License as regulated by Government Regulation No. 27 Year 2012. While 21 others know the obligation to implement RKL-RPL or report the results of RKL-RPL implementation only (Figure 4). Knowledge of the application of administrative punishment is also very low. No business and/or activity can adequately respond to four levels of administrative punishment that can be applied in the event of a

violation.

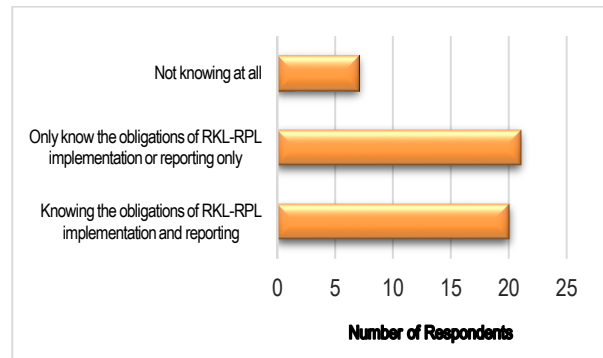


Figure 4. Knowledge Level of Person in charge of Business and/or Activity about Obligation of Environmental License Holder

(Source: The Results of Questionnaire Data Processing, 2017)

Approximately 33% of business and/or activity responsibilities consider that the application of both is only an administrative requirement to obtain a business license and/or activity (Figure 5). This assumption is similar to that developed in some other areas of Indonesia, such as in Tangerang District (West Java) where 26.7% of businesses and/or activities consider the preparation/implementation of Amdal and UKL-UPL only in an effort to comply with legislation (Shoba, 2006), and in Kudus District (Central Java), approximately 44.4% of employees in five businesses and/or activities that have not been effective in the implementation of environmental management and monitoring also assume the same (Tias, 2009).

From that description it can be understood that attitudes/responses of businesses and/or activities can give effect to the effectiveness of policy implementation. This is in accordance with the Mazmanian and Sabatier (1983) theories which states if positive target group responses and support the implementation of a policy will facilitate the successful implementation of the policy.

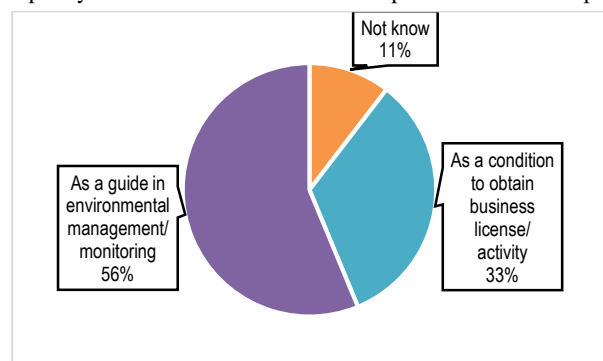


Figure 5. Percentage of Type of Business Response and/or Activity to Amdal Urgency and UKL-UPL

(Source: The Results of Questionnaire Data Processing, 2017)

###### 3. Skills of implementor

Approximately 64.6% of businesses and/or activities are known to have an organizational structure with specific divisions/sections responsible for environmental management and monitoring activities. This particular division/section has an average of S-1 qualified personnel, but not all of them have an environmental education background. The number of personnel that there is an average of only one person. In addition, only 12.5%

of businesses and/or activities that have personnel (in the divisions/sections of environmental management and monitoring) have been provided with technical training in the field of environment. This condition can certainly affect their capability/ability in implementing RKL-RPL. Therefore, the skills of the implementor is one of the important factors in the implementation process. This is in accordance with Mazmanian and Sabatier's (1983) theory which is in line with Subarsono (2006) opinion, which states that the apparatus/personnel of the implementor must have skills in prioritizing the objectives and then realize the priority of the objectives in the implementation of a policy.

### *The Role of Other Factors*

#### 1. Communication

Seven businesses and/or activities (all have UKL-UPL) who do not know the obligations of RKL-RPL implementation and their reporting states that the main factors causing their ignorance are lack of information and socialization. On the other hand, the LHPKPP Services of Padang Pariaman District does not deny that the delivery of information and socialization regarding the environmental management and monitoring policy to the related agencies and the business and/or activities has not been optimal yet, and the condition is one of them due to budget problems. Socialization is not never done, it's just not sustainable. To overcome this problem, the agency still reminds the person in charge of the business and/or activity in every guidance and supervision regarding its obligation as the holder of Environmental License, but because the guidance and monitoring has not been able to accommodate all the existing business and/or activity, there are a number of responsible businesses and/or activities that are not getting the information they should have.

In addition, to communication between the LHPKPP Services of Padang Pariaman District with the business person in charge and/or activity, also identified other factors related to the communication problem, that is in the internal environment of the business organization and/or activity. Approximately 8.3% of businesses and/or activities recognize this as one of the factors affecting the implementation of RKL-RPL. According to them, communication problems often occur when the organizational leadership is in charge of the business and/or activity, either between the new leader and the staff/ subordinates or between the new leader and the previous leader. The new leaders tend to be less understanding of the urgency of implementing Environmental License.

#### 2. Unclear ambiguity of RKL-RPL

From Figure 2 it is found that 28% of businesses and/or activities expressed unclear operationalization of RKL-RPL as the main problem causing non-implementation of all provisions in RKL-RPL. While related to the general clarity of RKL-RPL substance, 35.4% of businesses and/or activities stated unclear that it is difficult to implement. According to Soemarwoto (2014), the recommendations given in Amdal (as well as UKL-UPL) should be specific and clear so that planners (initiators businesses and/or activities) can use them. General recommendations are useless (can not help).

One example of this uncertainty is related to RKL for waste water management. In the document only mentioned the obligation

to have WWTP to treat the resulting liquid waste, not explained more about the type/ specification of WWTP to be made. In addition to some building activities do not explain the applicable RKL form to overcome the impact of air pollution due to construction or material mobilization. In the document only mentioned responsible person shall control and monitor air quality around the activity location.

#### 4. Conclusion

Factors influencing a policy adopted from the Mazmanian and Sabatier (1983) theories have been shown to have an effect on the implementation of environmental management and monitoring of businesses and/or activities in Padang Pariaman District, although with varying degrees of significance. Influence can be either positive or negative. The results also succeeded in identifying two other factors that may affect the effectiveness of the implementation. In the future, it should be considered to study more deeply about the interrelationship between these factors, so that we can know the main problem in the implementation process.

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