Strategy for institutional development of the regional technical implementing unit (UPTD) of regional waste landfill of NTB Province

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Abstract. The Kebon Kongok Regional Landfill (TPA) is one of the final processing sites serving West Lombok Regency and Mataram City. The Landfill is managed by the Regional Technical Implementing Unit (UPTD) of the Regional Waste Landfill of NTB Province under the Department of Environment and Forestry of NTB Province. Currently, waste services in Mataram City and West Lombok Regency have not met the sanitation target. One of the factors that affect it is the financial problem where there is no budget flexibility which often causes difficulties in handling operations, especially at the beginning and end of the year. Therefore, the purpose of this study is to determine the institutional development strategy as an effort to increase the role of UPTD in solid waste services. The analytical method used is Force Field Analysis (FFA). Based on the FFA, it is found that the Total Weight Value (TNB) driving forces are more significant than the restraining forces; this means that UPTD of Regional Waste Landfill of NTB Province is encouraged to carry out institutional development. Therefore, the institutional development strategy is that UPTD applies for the Financial Management Pattern of Public Service Agencies (PPK-BLUD).

1. Introduction
Waste is a national problem so that its processing needs to be handled in a comprehensive and integrated manner from upstream to downstream to provide economic benefits, be healthy for the community, be safe for the environment, and change people's behaviour. Wastes from various sources are transported to the Landfill, which is a place where waste is isolated safely in order not to cause disturbance to the environment [1]. Therefore, it is necessary to provide proper facilities and treatment so that security can be appropriately achieved [2].

The problem of waste in Indonesia from year to year continues to increase. Moreover, it is increasingly difficult to find land to be used as a landfill which triggers the development of the use and procurement of a joint landfill (Regional Landfill) by several cities/regencies that are located close together. However, in its implementation, Regional Landfills are often ineffective because of large institutional structures but poor functions, lack of coordination among local government institutions, and overlapping tasks and institutional functions between one district and other problems [3]. In addition, one of the factors that influence the low level of solid waste services was the form of waste management institutions which generally have a smaller capacity, or capacity for local institutions or managers, compared to the amount of waste they have to manage [2].
The success of waste management cannot just rely on the government's role, but community involvement in waste management can be the key to success in waste management. As a source of household waste, the community must help the government in waste management [4]. In addition, community participation is expected to support implementing a waste management system using the 3R method [5].

One form of solid waste management institution is the Regional Technical Implementing Unit (UPTD). Landfill's UPTD, one part of the Environmental Service, has its organizational structure [6]. This form of waste management service institution has many limitations, mainly related to flexibility in budget management, sanctions and appreciation for the community in waste management, and the implementation of technical regulations related to waste management at both central and regional levels [7]. Optimization of landfill management can be achieved through four alternative strategies: improving infrastructure, involving investors in the construction and operation of landfills, promoting social participation, and improving the quality of human resources [8].

The Mataram City Environment Service initially managed the Kebon Kongok Regional Landfill from 1993 to 2017. Furthermore, in 2018 based on the Decree of the NTB Governor concerning the Appointment of Regional Landfills for West Lombok Regency and Mataram City, West Nusa Tenggara Province number 658.1-29 dated 2 January 2018, the Kebon Kongok Regional Landfill was officially managed by the Regional Technical Implementing Unit (UPTD) of Regional Waste Landfill of NTB Province under the NTB Provincial Environment and Forestry Service. The reason behind management change is that the Landfill location in West Lombok Regency was difficult to handle by the previous Mataram City Government, as it was not the authority of the Mataram City Government. For example, the Mataram City Government cannot issue social assistance funds (compensation) because it is outside the government authority. Therefore, with the establishment of UPTD of Regional Waste Landfill of NTB Province under the Provincial Government, it will be easy to handle this problem. District/city waste affairs in collaboration with other local governments or in the sense that they are managed regionally are the affairs of the provincial government. Thus, if viewed from the position of the subjects in the regional waste management cooperation, it consists of the provincial government, regional government and city government [9].

In operating the Landfill, UPTD only uses regional expenditure budget (APBD) funds which is the primary source of income and does not collect retribution from the community. Because it is tied to APBD funds, UPTD faces many obstacles in procurement at the beginning and at the end of the year. Problems related to financing are that the APBD funds allocated for waste management are still low, the realization of retribution withdrawals is still low, the levy rates are still not based on the community's ability to pay, and alternative sources of funds such as funds from soft loans, private participation, grant funds, and others have not been explored optimally [10]. However, UPTD has some potential as it has as an external factor that supports the efforts to increase productivity and efficiency of waste services, such as cooperation with PT Indonesia Power – Jerajang OMU in the manufacture of solid recovered fuel (SRF) and plans for future cooperation with PT. Geo Trash Management for large-scale biogas management by capturing 90% biogas, PT. Geo Trash Management for processing plastic into fuel with plastic supply and road access, and PT. GNE for SRF processing with a capacity of 5 tons/day. Therefore, an institutional development strategy is needed to increase the role of UPTD in waste services.

2. Methods
This research was conducted at UPTD of Regional Waste Landfill of NTB Province. The research sampling method is Judgment/Purposive sampling. This approach is used when the sample is taken based on an expert judgment regarding the population as a whole (must have sufficient knowledge about the population) [11]. This method is done by interviewing several experts and practitioners in their fields. Thus, five experts became interviewees/respondents in this study.

The analytical method used to analyze institutional development is Force Field Analysis (FFA) [12]. Force Field Analysis is an appropriate tool used in planning change. Knowing the source of their
strengths and understanding what can be done about these forces or strengths [13]. FFA analysis in its implementation uses the driving forces (forces for a change) and restraining forces (forces against change). The steps used in the FFA analysis [14] and [15] are:

a. Set the goals. The first step is to agree on the areas of change to be covered. These areas of change can be written as desired policy goals or objectives.

b. Identify the driving and restraining forces. The driving and restraining forces used are sourced from internal and external forces. The motivators are Strengths and Opportunities, while the restraining forces are a combination of Weaknesses and Threats.

c. Assess the driving and restraining forces. The assessment of each identified factor will determine the success factor of the goal. Determination of the value is done by analyzing the driving and restraining forces of the existing institutional system in UPTD of Regional Waste Landfill of NTB Province. Several aspects need to be considered in assessing each force, i.e.:
   - The urgency of the factor to the goal, consisting of the Urgency Value (NU) and Factor Weight (BF).
   - Factor support for goals, consisting of Support Value (ND) and Support Weight Value (NBD).
   - The linkage between forces to the goal consists of Associated Value (NK), Average Correlation Value (NRK), and Associated Weight Value (NBK).

The determination of the Support Value (ND) scale will use the suitability and similarity of the interview results [16]. The range class of the scales is determined as follows:
   - Value 5 = 5 respondents gave the same answer, which supports the factor
   - Value 4 = 4 respondents gave the same answer, which supports the factor
   - Value 3 = 3 respondents gave the same answer, which supports the factor
   - Value 2 = 2 respondents gave the same answer, which supports the factor
   - Value 1 = 1 resource person answered the same, which supports the factor

The NK assessment uses a rating scale between 1 – 5 where:
   - Number 5 means, very high value of urgency.
   - Number 4 means a high value of urgency.
   - Number 3 means that the urgency value is relatively high.
   - Number 2 means less value of urgency.
   - Number 1 means significantly less value of urgency.

The determination of the Key Success Forces (FKK). The FKK are vital strategic factors. The FKK was selected from the driving forces, which are the two strengths category and two opportunities category, and from the restraining forces, which are two weaknesses categories and two threats category. It is determined in the following way:
   - Select each restraining force and driving force based on the largest TNB or Total Factor Weighting Value.
   - If the TNB is the same, then the most significant BF is chosen.
   - If BF is the same, then the largest NBD is selected.
   - If the NBD is the same, then the largest NBK is selected.
   - If the NBK is the same, then choose based on experience and rational considerations.

d. Create an Organizational Strength Field Diagram.

e. Strategy Development.
3. Results and Discussion
After interviewing the experts, the driving and restraining forces can be identified; then these forces are analyzed using the FFA method. In Table 1, it can be seen that the results of the assessment of the TNB value for the driving factor is 8.35 and the restraining factor is 7.91; this means that the TNB value of the driving factor is greater than the restraining factor of TNB, so UPTD of Regional Waste Landfill of NTB Province has the opportunity to develop its institutions. A depiction of the attraction between the driving and restraining forces along with the value of each TNB can be seen in Figure 2. It explains that development has been in a positive direction, which means that UPTD of Regional Waste Landfill of NTB Province has an excellent opportunity to make institutional changes.

Table 1. Identification of Driving and Restraining Forces

| No | Driving Forces | TNB | Weakness | Restraining Forces | TNB |
|----|----------------|-----|----------|--------------------|-----|
| Strenght | | | | | |
| D1 | Regulatory and institutional structure | 0.98 | R1 | Facilities and infrastructure are not adequate and do not work optimally | 1.58 |
| D2 | Clear Work Plan | 1.01 | R2 | Human Resources (HR) | 1.64 |
| D3 | Implementation of duties, authorities and responsibilities | 1.00 | R3 | Availability of landfill infrastructure | 0.80 |
| D4 | Landfill operational officers and personnel in working according to SOP | 0.67 | R4 | Insufficient and inflexible budget | 2.32 |
| D5 | Provide counselling or outreach to the community | 0.10 | R5 | There is an incident of environmental contamination around the Landfill | 0.00 |
| D6 | The routine of monitoring and evaluation | 0.40 | | | |
| D7 | There is a commitment from the local government | 1.07 | R6 | The waste service target at JAKSTRADA has not been achieved. | 0.79 |
| D8 | Involvement/cooperation with other agencies/private sector in Landfill | 0.76 | R7 | People do not understand waste sorting | 0.28 |
| D9 | Funding support from APBD, APBN and CSR | 0.78 | R8 | There was a demonstration/rejection from the community. | 0.51 |
| D10 | There are income opportunities other than from the local government. | 1.32 | | | |
| D11 | Regular compensation from the local government to the community | 0.26 | | | |
| D12 | There is a waste management community organization. | 0.00 | | | |
| Total of Driving Forces TNB | 8.35 | | Total of Restraining Forces TNB | 7.91 |

Source: Analysis, 2021

The fundamental forces in the institutional development of UPTD of Regional Waste Landfill are determined by the Key Success Forces (FKK), where the FKK value is obtained from the highest TNB value based on the assessment in Table 1.
The institutional development strategy can be determined based on the FKK (Table 2.) by
maximizing the existing potentials. One of the changes-institutional development is to form a UPTD
with the Financial Management Pattern of the Regional Public Service Agency (PPK-BLUD) [3]. PPK-
BLUD was formed to provide services for the implementation of Regional Landfill to the community
without finding profit and based on the principles of efficiency and productivity. In the form of BLU,
the Regional Landfill management agency provides more than various factors that affect waste
management operations both in terms of funding and institutions so that it will support the proper
operation of Regional Landfill [17]. The concept of the future fund is that the institution is given
convenience in managing its finances. The consequence is that the percentage of funds originating from
APBD is reduced, so it is hoped that they can be independent [3]. Regional Landfill Units can apply
BLUD financial management pattern have to qualified the substantive, technical, and administrative
requirements [18].

The Regional Landfill Unit has fulfilled the substantive requirements that the duties and functions
of the Regional Landfill Unit are operational in providing public services that produce semi-public
goods/services (quasi-public goods).

The service performance of the Regional Landfill Unit must be declared feasible to be managed
through BLUD, which can improve its service effectively, efficiently, and productively to meet the
technical requirements. The determinations of these criteria is based on the recommendation of the Head
of the Department of Public Works. In addition, the financial performance of the Regional Landfill Unit
has been declared healthy, which is indicated by the level of income from services that tend to increase
and is efficient in financing expenses.

Administrative requirements can be fulfilled if the Regional Landfill Unit prepares and submits
documents which include:

a. a statement of ability to improve service performance, finance, and benefits for the community;
b. governance patterns;
c. business strategic plan;
d. minimum service standards;
e. the main financial report or the prognosis/projection of the financial report; and
f. the latest audit report or statement of willingness to be audited independently.

Furthermore, the Regional Landfill Unit submits an application to the Local Government through
the Head of the Department of Public Works, accompanied by the administrative requirements
documents. Based on the request, the Head of Local Government forms an assessment team to examine
and evaluate the proposed implementation of the Regional Landfill PPK-BLUD. Suppose that the results of the assessment by the team are declared eligible, the results are then submitted to the Head of Local Government to determine the application of PPK-BLUD status with the decision of the Head of Local Government. Determination with BLUD Status in the form of Full BLUD or Gradual BLUD, while what distinguishes the BLUD status is in the provision of flexibility, i.e., in the form of the flexibility to implement sound business practices to improve services to the community, such as exceptions to regional financial management provisions in general [19].

4. Conclusion

Based on FFA analysis, the Total Weight Value (TNB) of the driving forces is greater than the restraining forces; this means that UPTD of Regional Waste landfill of NTB Province has the opportunity to carry out institutional development. The institutional development strategy is suggested to make institutional changes to become UPTD that implements the Financial Management Pattern of Regional Public Service Agency (PPK-BLUD), which operationally provides direct services to the community. To achieve PPK-BLUD, UPTD of Regional Waste Landfill of NTB Province must meet the substantive, technical, and administrative requirements.

5. Acknowledgement

The author would like to express gratitude to the primary supervisor, IDAA Warmadewanthi, who guided the author throughout this project. The author would also like to thank the education staff who have supported the author in the preparation of this project, and all employees of UPTD of Regional Waste Landfill of NTB Province who have spent their time to help the author in compiling the project. Last but not least, thanks to the author's parents and all family members, for all the support, enthusiasm, motivation and prayers so that this research can be done well and smoothly.

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