

Performance of the Public Works and Spatial Planning of Banten Province in Road and Bridge Management

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Abstract. This research was conducted to see how the Banten Province Public Works and Spatial Planning (PUPR) Department performs in managing roads and bridges. The budget required for the construction of road and bridge infrastructure is currently not commensurate with the number of roads that require repairs and capacity increases taking into account current traffic movements. As a result, community mobility and regional accessibility have decreased, which threatens economic growth and competitiveness in the Banten Province region. This research uses a theory that discusses the performance assessment model according to Dwiyanto, namely productivity, service quality, responsiveness, responsibility and accountability. This research was conducted qualitatively. The research results show that although several road and bridge construction failed or were delayed, the performance of the Banten Province PUPR Service was considered quite good because the work was carried out in accordance with the vision and mission of the organization.

Keywords : Performance, Infrastructure, Roads and Bridges

1 Introduction

The existence of adequate infrastructure is very necessary, such as road and bridge infrastructure which is most often used by the community. Roads and bridges also have a huge function for daily activities. Therefore, it is very important that roads and bridges are in accordance with community expectations. Roads and bridges as part of transportation infrastructure have an important role in the economic, socio-cultural, environmental, political, defense and security fields, and are used for the prosperity of the people.

Infrastructure development can be used as a strategy by the government, namely the locomotive becomes the movement of the economy [1]. The government is increasing public attention to infrastructure, while simultaneously carrying out infrastructure development. However, the problem is whether the implementation of this strategy can be effective in the field [2].

Banten Province has a Public Works and Spatial Planning Service in the Highways Sector which handles road and bridge infrastructure management. One of the duties and functions of the Banten Province Public Works and Spatial Planning Service is related to public services for managing roads and bridges which are the authority of Banten Province. Road and bridge infrastructure is a form of public service to facilitate public transportation and drive the

economy in the Banten Province region. The planning, construction and preservation of roads and bridges certainly cannot be separated from the role of the Public Works and Spatial Planning (PUPR) Department in Banten Province.

The construction of roads and bridges is carried out in accordance with the authority of the Provincial Government, prioritizing roads and bridges that have an impact on economic growth and are evenly distributed throughout the Province, taking into account the interrelationships of road and bridge infrastructure development programs. Currently, the budgeting needs for road and bridge infrastructure development are not commensurate with the number of road sections that require repair or additional capacity, taking into account the demand for existing traffic movements. As a result, there is a decrease in the level of regional accessibility and community mobility which can threaten economic growth and reduce regional competitiveness in Banten Province.

The Department's performance in managing roads and bridges will be implemented optimally when local governments have the concept of sustainable and equitable development, effective and efficient government management and investments that accommodate the interests of related parties. By managing these roads and bridges, damaged roads and bridges will not be found and left without repair. The following is the latest data regarding road length and road conditions in Banten Province

Table 1. Road Length and Road Conditions in Banten Province in 2022

No	Description	Road Conditions	
		KM	%
1	Excellent		
	a. Good	3,582.43	57.54
	b. Currently	1,461,793	23.48
2	Damaged		
	a. Light Damage	633,513	10.17
	b. Heavy Damaged	548,612	8.81
	Total	6,226,348	100

Source: LKIP PUPR Department of Banten Province, 2023

Based on Table 1.1, it is known that of the 6,226,348 Km of roads in Banten Province, there are 5,044,223 Km or around 81.02% of the roads in good condition, divided into 3,582.43 Km of roads in good condition and 1,461,793 Km of roads in fair condition. Apart from that, around 1,182,125 Km or 18.98% of Banten Province's roads are unstable, there are 633,513 Km of roads in a slightly damaged condition, and even 548,612 Km of roads are in a heavily damaged condition. The management of road and bridge infrastructure in Banten Province still receives many complaints from various groups of society, especially from people who have not experienced adequate road improvements in their area.

The management of road infrastructure in Banten Province still receives many complaints from various groups of people, especially people who have not experienced adequate road improvements in their area. Provisions in the Banten Province Medium Term Development Plan (RPJMD) 2022-2027 have included several focuses on road and bridge infrastructure development; connecting all provincial roads in a provincial road network system in accordance with construction standards and in good condition.

However, the Banten Province RPJMD target for the 2022-2027 period for the development of road and bridge infrastructure is difficult to achieve. This can be seen from the development of road and bridge infrastructure over the years which has made it impossible to

achieve the existing RPJMD targets. one of which was caused by the implementation of the road and bridge infrastructure development program which was hampered by technical factors and the impact of budget *refocusing* in previous years.

1.1 Definition of Performance

Humans come together and form organizations to collectively achieve individual and organizational goals [3]–[5], and their performance is an important function for organizational development through goals [6]. Performance in general can be interpreted as an assessment to determine the ultimate goal of an individual, group or organization. [7] believes that performance is the output produced by indicator functions or indicators of a job or profession within a certain time. According to Arnold and Feldman in [8] performance is a series of individual behaviors or activities that are in accordance with the expectations or desires of the organization where he works. This is also supported by Gibson, Ivancevich, and Donnelly [8], saying that performance is the level of success in carrying out tasks and the ability to achieve predetermined goals. This limitation means that performance is declared good and successful if the desired goals can be achieved well. In an organization, assessing the performance of an organization is important. This is because performance and performance appraisal are inseparable things. [9] states that there are several types of performance indicators, namely: Input indicators measure resources such as budget (funds), Human Resources, equipment, materials and other inputs, which are needed to carry out activities. By reviewing the distribution of resources, an institution can analyze whether the allocation of its resources is in accordance with the established strategic plan.

1.2 Performance Measurement Model

The performance measurement model according to Dwiyanto [10] includes:

- a. Productivity
The concept of productivity not only measures the level of efficiency, but also the effectiveness of services. Productivity is generally easy to understand as the ratio between input and output. Productivity is a level of organizational achievement in achieving predetermined goals that can be achieved.
- b. Service Quality
Many negative views are formed about public organizations that arise because of public dissatisfaction with quality. Thus, according to Dwiyanto, public satisfaction with services can be used as an indicator of public bureaucratic performance.
- c. Responsiveness
Responsiveness is an organization's ability to recognize community needs, set service agendas and priorities and develop public service programs in accordance with community needs and aspirations. One of the performance indicators, responsiveness directly describes the ability of a public organization to carry out its vision and mission, especially to meet community needs.

- d. Responsibility
Explain whether the implementation of public bureaucratic activities is carried out in accordance with correct administrative principles and bureaucratic policies, both explicit and implicit.
- e. Accountability
The extent to which public policies and activities are subject to political officials elected by the people or a measure that shows the level of conformity of service providers with external values or norms existing in society.

2 Research Methodology

The research method used in this research is qualitative descriptive research. The use of qualitative descriptive methods is intended to create systematic, factual and accurate descriptions, descriptions of an object, a set of current conditions and the relationships between the phenomena being investigated [11] . So by using qualitative research we can analyze comprehensively and in depth the performance of the Banten Province PUPR Service in managing roads and bridges. To obtain data that suits research needs, the author must go through a process called data collection. In this research, the data collection technique carried out by the author was through interviews with the technique of determining informants using purposive techniques. In this research, the author also carried out a documentation study by reading, studying, and analyzing various regulations and documents related to the research carried out.

3 Research Results and Discussion

The performance of the Banten Province Public Works and Spatial Planning Service in managing roads and bridges needs to be considered because the existence of adequate infrastructure is very necessary, as is road and bridge infrastructure. One of the infrastructures most frequently used by the community is roads and bridges. Roads and bridges also have a huge function for daily activities. Therefore, it is very important that roads and bridges are in accordance with community expectations. The existence of good roads and bridges will make it easier for people to transport and feel comfortable. Article 1 number 4 Law no. 38 of 2004 concerning Roads, defines roads as land transportation infrastructure which includes all parts of the road, including complementary buildings and equipment intended for traffic, which are on the ground surface, above the ground surface, below the ground surface and/or water, and above water level, except for railways, lorry roads and cable roads.

The results of the research show that the performance of Banten Province PUPR Service employees is in the quite good category by prioritizing community needs. The responsiveness of the PUPR Service in coordinating the information system if there are reports from the public or news from the mass media (radio, television and other social media) regarding damage to roads and bridges, the PUPR Service immediately carries out an examination (survey) of mass media reports/notifications so that if conditions Roads and bridges are quite bad, so action will be taken to obtain administrative data and data on the condition of the road or bridge. The PUPR Service is also appropriate in responding to public complaints. Service time is an important thing in the service process.

Because in principle, people want fast, precise and certain service. The PUPR Department also provides good quality services to the community, this can be seen from the quality of the road and bridge construction provided. The PUPR Department really prioritizes the quality of development, although sometimes the quality of development is not good, this is due to a lack of supervision of the development implementation team (Contractor) so quality assurance is not guaranteed. The apparatus which constitutes Human Resources (HR) in the Banten Province Department of Highways and Spatial Planning, consists of civil servants (PNS) and Non-Permanent Employees (PTT), until January 2023, the number of personnel in the Department of Highways Banten Province PUPR is 136 people, with details, 43 employees with civil servant status and 93 employees with non-permanent employee status.

Data on employees (PNS) within the Department of Highways and Spatial Planning of Banten Province, when viewed based on educational level, can be seen in table 4.1 as follows:

Table 2. Data Level of Education Final Civil Servants Field Build Clan Banten Province PUPR Service

Last education	Number of Employees
Elementary School (SD)	1
First Level Secondary School (SLTP/Equivalent)	-
High School (Senior High School/Equivalent)	13
Diploma III	3
Bachelor degree	18
Bachelor Degree-2	8
Total	43

Source : PUPR Department , 2023

Whereas, if seen based on rank or classcan detailed on table 4.2, as following:

Table 3. Data civil servants Field Build Clan Service PUPR Province Banten Based on Rank and class

Rank/Group	Number of Employees
Coach/Gol.IV	1
Arranger/Gol.III	29
Regulator/Goal.II	12
Interpreter/Goal.I	1
Total	43

Source : PUPR Department, 2023

From description on can seen that the Highways Sector employee who educated S1 as much 41.86% of employees, employee Which educated high school 30.23% employee, education S2 only 18.6%, besides it's still there Which elementary school education 2.3%. Therefore Field Build Clan Service PUPR Banten Province still has many educated people high school. For face challenge in the future, the Highways Division of the PUPR Service Province Banten Keep going do effort employee development through courses, training technical, as well as chancelearn about the scholarship programs offeredby government. All of them this is done in effort enhancement professionalism source Power man especially fields Clan development.

Based on study This explained that Level education formal status held by PUPR Service employeesProvince Banten, there are still staff with high school education level (some staff currently finish S1) added the number of undergraduate staff is not suitable with skill or No graduate ofbachelor technique civil. Level education Which low or No in accordance naturally

influence performance, Because employee those with low or inappropriate education the possibility of having that knowledge not enough compared to with employee Which educated tall And in accordance skill.

The performance of the PUPR Service is measured by the level of success of what is being done. Accountability for programs that have been implemented must be in accordance with what happened, if things do not go well, it will raise questions in the minds of the public and of course they will judge that the performance of the Banten Province PUPR Service is considered weak. The performance of road and bridge management in public services in accordance with the performance measurement model according to Dwiyanto includes, among other things:

- a. Productivity
The performance of the Public Works and Spatial Planning Department of Banten Province does not yet have good productivity because not all development activities can be realized due to many tender failures and difficulties in obtaining permits from related parties such as permits from the center. The human resources at the PUPR Service are quite reliable, although they do not yet meet the required criteria, but the PUPR Service has anticipated this by carrying out technical training in the jakon sector, then there is a lack of adequate budget, a lack of sufficient equipment and heavy equipment.
- b. Quality of Service
The quality provided by the PUPR Service can be said to be quite good considering that the PUPR Service has provided good service to the community, this service can be seen from the construction of roads and bridges as a form of service to the community. However, many obstacles to the quality of development are caused by very complicated requirements when customer activities hinder and reduce implementation time.
- c. Responsiveness
The responsiveness provided by the PUPR Service can be said to be quite good because the PUPR Service has tried to respond well to reports from the public regarding the construction of roads and bridges that are damaged or that are no longer fit for use. Then the PUPR Service has also provided outreach regarding the construction of roads and bridges to the community so that the community can take part in maintaining these roads and bridges.
- d. Responsibility
The PUPR Service has provided good service to the community. This can be seen from the PUPR Service's quick response to reports from the public regarding damaged roads and bridges, then the PUPR Service immediately inspected (surveyed) the location so that it could be reported directly and handled (repaired).
- e. Accountability
The PUPR Service has provided accountability in accordance with the existing legal basis. Every road and bridge construction activity is always made a report and then the report continues to be given to regional leaders for follow-up. Apart from that, when there are reports from the public regarding damaged roads and bridges, the PUPR Service is immediately ready to repair the roads and bridges in accordance with existing regulations.

Performance Indicator Achievement The percentage of the provincial road network in steady condition is 99.04%. The percentage of stable roads is calculated from the length of roads in good and fair condition divided by the total provincial road sections. The performance

achievements of this indicator were not achieved according to the targets that had been set due to the following reasons:

- a. In 2022, there will be a delay in handing over land due to the land acquisition process, thus affecting the physical work in the field related to the land acquisition process. Apart from that, there is the influence of accumulated targets in the previous year (2020 and 2021) which were not achieved due to the impact of refocusing. The budget for handling the Covid-19 pandemic, so that several work packages that support the achievement of a steady road in the 2021 fiscal year have been cancelled. This has an impact on the results at the end of 2022 not being able to reach the 100% target
- b. Constrained by technical factors due to changes in work items in the field. There are several work packages that have not been completed in the 2022 budget year, so construction will continue in the 2023 budget year which will be paid for in the 2023 APBDP obligation DPA. These work packages include: Construction of the Banten Lama-Tonjong road, construction of the Cipanas-Warung Banten road, road widening Sempu-Dukuh Kawung, widening of Simpang Gondrong and widening of the Pakupatan-Palima road, rehabilitation of Jalan KH. Hasyim Ashari, Periodic maintenance of Roads in the Tangerang City Region, Periodic maintenance of Roads/Bridges in the South Tangerang City Region and Periodic maintenance of the Malanggah-Catang Road Section
- c. Landslides and floods often occur during the rainy season, especially at the end of the year, which results in a sudden decline in conditions

Then, several obstacles were faced so that the achievement of the percentage of provincial bridges in stable condition did not reach 100%, including the following:

- a. There was an impact of the previous year's targets (2020 and 2021) which were not achieved due to the impact of refocusing the budget for handling the Covid-19 pandemic, so that several work packages that supported the achievement of the Bridge in a stable condition in the 2021 budget year were cancelled. This has an impact on the results at the end of 2022 not being able to reach the 100% target
- b. Technical factors, changes in work items in the field. Based on these considerations and taking into account the principle of benefit from the work that has been carried out, the opportunity to complete the work beyond the 2022 Fiscal Year is given for the following works :
 1. Construction of the Cisoka bridge
 2. Construction of a temporary bridge (Bailey Bridge) for traffic access, high water discharge so that the work area is submerged and the work process is hampered
 2. Construction of the Jatipulo bridge. There are buildings owned by residents located at the bridge abutment location, difficult access to work, high river water levels.
 3. Dadap bridge rehabilitation

Road and bridge construction work is based on a priority scale, where the priority scale is to prioritize roads and bridges that are seriously damaged, moderately damaged or lightly damaged and need immediate treatment. For this construction, the PUPR Department divided the work. For example, construction of heavily and moderately damaged roads and bridges will be carried out by the Highways Division, while repairs and maintenance of lightly damaged roads and bridges will be carried out by the UPT (Technical Implementation Unit) in each region. The priority scale is carried out because the PUPR Department has many obstacles, including a lack of heavy equipment and a lack of skilled workers.

Lack of adequate budget, lack of sufficient equipment and heavy equipment, changes in road status, namely several provincial roads becoming national roads and national roads becoming provincial roads, which means that not all roads that have dropped status are in good condition. There are jobs that fail to be tendered. Construction implementation is according to plan but sometimes it is not on time (according to natural conditions) in achieving maximum results, according to the targets that have been set, which are useful and support the ongoing process of the Public Works Department's activities and spatial planning.

For this reason, it is hoped that Banten Province PUPR Service employees can maintain and further improve their performance in building roads and bridges, so that they can provide excellent service to the community using roads and bridges. The successful implementation of road and bridge construction carried out by employees supports the process of running the activities of the Banten Province Public Works and Spatial Planning Service and employees already have procedures or instructions as information for the implementation of road and bridge construction. Leaders should continue to work in accordance with existing procedures so that the activity process can run effectively and efficiently, until the desired goals are achieved in accordance with the Vision and Mission of the Banten Province Public Works and Spatial Planning Service.

The PUPR Service is the authorized and appointed organization in carrying out road and bridge issues. After the author has conducted interviews, the author will explain the factors that hinder performance:

- a. The facilities and infrastructure that are still lacking are heavy construction equipment for road and bridge management work. If there is a lot of heavy equipment and it is capable, it is possible that the PUPR Department can manage roads and bridges more quickly. Apart from that, official cars are inadequate. Reviews for road and bridge management require site inspections. The location inspection schedule is usually to save time and so that it can be carried out more quickly at the same time, but the limited number of official cars is an obstacle for the PUPR Department of Banten Province, in this case it is still lacking and needs to be increased so that it can support and optimize the performance of the PUPR Department in Road and Bridge Management in Banten Province
- b. The number and quality of human resources and employees are the main driving instruments of an organization, because without employees, organizational activities cannot be carried out. Not only that, the quantity or number of employees also greatly determines the achievement of organizational goals effectively and efficiently. The number of Banten Province PUPR Service Employees is not commensurate with the number of public complaints and is not commensurate with the area of roads and number of bridges that must be handled. Then the level of employee education influences the employee's ability to carry out their duties. The higher an employee's level of education, the better their ability to carry out their duties. As the volume of work continues to increase, the current number of PUPR Department employees is felt to be less capable of carrying out increasingly difficult tasks.
- c. The PUPR Department really prioritizes the quality of development, although sometimes the quality of development is not good, this is due to a lack of supervision of the development implementation team (Contractor/service provider) so that quality assurance is not guaranteed. Improvements to construction service providers as development partners in Banten Province are still being carried out in stages. It cannot be denied that the spearhead of development in the field of community

development is the construction service providers as implementing parties. Implementing infrastructure development for the PUPR Service requires readiness from service providers. Based on experience, local construction service providers still have a central role in implementing development in their area. Generally, even though this has been done openly by customers, there are still very few construction service providers from outside the area who enter. The current situation is that many local construction service providers still have inadequate human resources and equipment. There are still many local construction service providers who rely on the use of heavy equipment by renting it to other parties. Or from a management perspective that is still not optimal. This is shown by the fact that there are still very few local construction service providers who have ISO.

- d. Another obstacle from external factors in road and bridge management is the public's perception of consistency. Perception is a process that starts from the individual so that the individual is aware of everything in his environment through his senses. With the development of this perception in society, people feel that there has been no change in the condition of the roads and bridges they often pass by.
- e. Natural conditions: Natural conditions are a factor that influences the management process and the length of time the condition of the road or bridge lasts. This can cause the PUPR Department to take a long time in handling road and bridge management. Natural conditions are also a factor that influences the maintenance process and how long a road or bridge lasts. The natural conditions in Banten Province, as is known in most areas, are quite steep. It is not easy to conquer roads with steep conditions. This can cause the PUPR Department to take a long time in handling road and bridge maintenance.

4 Conclusion

The performance of the Banten Province Public Works and Spatial Planning (PUPR) Department is measured based on several aspects. First of all, productivity is considered to be still not good because several development activities cannot be realized due to failed tenders, difficulties in obtaining permits from the center, as well as limited budget and equipment. Even though the human resources are considered reliable, technical criteria and training need to be improved. Second, in terms of service quality, the PUPR Department is considered to provide good services to the community through the construction of roads and bridges. Third, responsiveness is considered quite good because the PUPR Service tries to respond well to reports from the public.

Furthermore, the fourth aspect, namely the responsibility of the PUPR Service, is considered good because they quickly follow up on reports regarding damaged community roads and bridges, as well as providing outreach to the community to participate in infrastructure maintenance. Finally, in terms of accountability, the PUPR Service has provided accountability in accordance with the applicable legal basis. Every development activity is reported to regional leaders, and they are ready to repair roads and bridges in accordance with regulations that accept reports from the community. This performance evaluation is important to prevent negative assessments from the community and ensure transparency and accountability in the implementation of development programs.

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