

Analysis of Project Supervision Performance in the Water Resources Sector of the Public Works and Spatial Planning Service of Central Maluku Regency

Sarbun Tuankotta¹, Tehubijuluw Zacharias^{2*}, Samson Laurens³

Universitas Pattimura, Ambon, Indonesia¹

Universitas Kristen Indonesia Maluku, Indonesia^{2*3}

Email: tehubijuluwzaharias@yahoo.com^{2*}

Abstract

This research aims to determine and analyze the implementation of the Water Resources Project for the Public Works and Spatial Planning Department of Central Maluku Regency. This research uses a descriptive qualitative approach. Carrying out research in the Water Resources Sector of the Public Works and Spatial Planning Department of Central Maluku Regency for 2 (two) months, namely July to September 2023. The data analysis technique in this research uses the Miles and Huberman model. The results of the research concluded that supervision of the implementation of the Water Resources Project for the Public Works and Spatial Planning Department of Central Maluku Regency was reviewed from the indicators of performance, conformance, aesthetics, time, timelines, consistency, accessibility & convenience, accuracy, responsiveness, reliability, communication, security, competence. in accordance with applicable regulations and standard operating procedures

Keywords: monitoring project performance

INTRODUCTION

Supervision is function final from management maintenance government. Supervision is something activity for obtain certainty is implementation work/activities has done in accordance with plan beginning. Activity supervision on basically compare condition Which There is with which should happen. When it turns out found any deviations/obstacles should be taken immediately correct (Aituru, 2022).

Supervision aim evaluate system control management, efficient And effectiveness implementation task principal and function as well as compliance with regulation legislation in frame repair And or enhancement performance. Entire activity supervision must is a comprehensive effort in building a government internal control system through culture and management ethics Which Good, analysis And management risk (Van Greuning & Bratanovic, 2020).

Water resources management is an effort to plan, implement, monitor, and evaluate the implementation of water resource conservation, utilization of water resources, and control Power damaged water. Pattern management source Power water is framework base in plan, implement, monitor and evaluate water resources conservation activities, utilization of water resources, and controlling the destructive power of water. Resource management plan Power water is results planning in a way comprehensive and integrated which required for carry out water resources management. Planning is a process of activities for determine the actions that will be carried out in a coordinated and directed manner in order to achieve objective resource management water (Tinoco et al., 2022).

The Water Resources sector is one of the fields in the Public Works and Planning Department Regency Space (PUPR). Central Maluku is responsible for resource management water power (SDA) in Central Maluku Regency. Based on the 2022 performance agreement, fields Central Maluku Regency PUPR Department's SDA is handling it 2 programs viz (1) Development and Management of Primary and Secondary Irrigation Systems in Irrigation Areas under 1000 meters Ha in 1 (one) Regency City Area and Management of Natural Resources and Safety Buildings Beaches in River Areas (WS) in 1 (One) Regency/City Area. From 7 (seven) activities on 2 (two) In this program, there are 4 (four) physical development activities, namely: rehabilitation of 250 ha Surface Irrigation Network, construction of river embankments along 1,385 meters, construction of cliff reinforcement buildings along 277 meters and construction seawall and coastal security structures 1636 meters long. The physical development, In development activities it is termed a project, which according to (Setiawan & Febryanto, 2018), is a process of combining a series of temporary activities that have starting point and end point, which involve various limited/certain resources to achieve the goals and objectives that have been set. Project implementation in general is a series of complex, interconnected, interconnected mechanisms of tasks and activities dependency and pregnant various problems separately.

Thereby also Rochman & Wahyuni (2017) explain that project is activity very past, with time And source Power limited For reach results end Which has specified, for example products or production facilities. Project activities can be interpreted as one temporary activities that last for a limited period of time, with resource allocation certain and intended to produce products or deviables whose quality criteria have been met clearly outlined. In implementing a project, planning and controlling as well as Supervision is the most basic function in realizing the success of an activity in project. Success something project No free with series activity which covers planning, implementation and monitoring stages. Like which stated (Kerzner, 2018), the project management process is an input process; such as setting goals, objectives, information, data, and sources Power. Process managerial; covers planning, organizing, implementing and controlling. Outputs; in the form of project performance optimization outputs, namely, costs, time, safety (K3), and project quality.

Performance supervision project is results work which have connection strong with the organization's strategic objectives, customer satisfaction, and providing economic contributions. Measurement performance supervision need done Because For know is in There are deviations in the implementation of work from what has been determined or determined or is the performance carried out according to the specified time schedule and is the performance in accordance with Which expected. According to Loch (2017), achieved or or not objective something project determined by role control and supervision. Project which currently taking place certain experienced more or less deviations from the agreed plan so that it was necessary there is control and activities internal supervision its implementation.

Project supervision according to Hidayah (2015) aims to: 1. evaluate And monitoring realization physique And financial And evaluate efficiency And its effectiveness in a way quantitative whether it is in accordance with the work plan; 2. research and evaluate project conditions and give suggestions or briefing If there is problem Which impact on Project progress ;3. Informing findings in the field and providing suggestions constructive to management.

Much research has been conducted on project performance. Hidayah & Soekiman (2015) found that the performance of supervision consultants in the Aceh region is salary apart from that The direct influence of salary is influenced by quite other factors

influential ie training and experience factors. Different from Amir (2022) who found that performance supervisory consultant significant on road construction projects in the province Kalimantan East is the management capability factor for monitoring project implementation. Different too with Djaelani & Retnowati (2022) who found that work supervision and implementation program safety And health Work determine productivity project workers construction.

The existence of differences in the research above provides an opportunity for researchers to reviewing project monitoring issues. As for the differences, where previous research is study field knowledge technique, whereas study This is at on field knowledge administration public with approach study qualitative, with refers on indicator supervision as explained by Suci (2019) and Ahadian (2020), namely performance, conformance, aesthetics, time, timelines, consistency, accessibility & convenience, accuracy, responsiveness, reliability, communication, security, competence.

RESEARCH METHOD

Study this use approach descriptive qualitative which mean for understand what the phenomenon is about experienced by research subjects, for example behavior, perceptions, motivation, action, And other etc. In study This which become subject study namely, Head of Service and Secretary of PUPR Service, Head of Division, Head of Section and staff at Water Resources Sector, District Public Works and Spatial Planning Service Central Maluku. Technique analysis data in study this use model Miles and Huberman which put forward that activity in analysis data qualitative done in a way interactive and continues continuously and until complete, so that the data is saturated. Internal activity data analysis, ie data reduction, display data, and conclusion drawing/verification. Process This qualitative research involves efforts such as asking questions and collecting data the specific one from para participants, analyzing data. Another reason for this research use method descriptive Because want to analyze in a way deep implementation Project Field Resource Water Service Work General And Structuring Room Regency Maluku Middle in terms of indicator performance, conformance, aesthetic, time, timelines, consistency, accessibility & convenience, accuracy, responsiveness, reliability, communication, security, competence.

RESULTS AND DISCUSSION

Results Study

The Water Resources sector is one of the fields in the Public Works and Planning Department Space (PUPR) Central Maluku Regency which is responsible for resource management water power (SDA) in Central Maluku Regency. Based on the 2022 performance agreement, fields Central Maluku Regency PUPR Department's SDA is handling it 2 programs viz (1) Development and Management of Primary and Secondary Irrigation Systems in Irrigation Areas under 1000 Ha in 1 (one) Regency Area City and Management of Natural Resources and Coastal Safety Structures in Subgai Region (WS) in 1 (One) Regency/City Region. From 7 (seven) activities in 2 (two) In this program, there are 4 (four) physical development activities, namely: rehabilitation of Irrigation Network 250 ha of surface, construction of a 1,385 meter long river embankment, construction building strengthening cliffs along 277 meters and construction of seawalls and security buildings beach throughout 1636 meters.

Project supervision according to Hidayah (2015) aims to: 1. evaluate and monitoring physical and financial realization and assessing its efficiency and effectiveness quantitatively is it in accordance with the work plan; 2. research and evaluate project conditions and deliver suggestions or direction if there are problems

that impact the progress of the Project;3. Inform findings in field and give suggestions constructive to management. Indicator supervision as explained by Suci (2019) and Ahadian (2020) that is performance, conformance, aesthetic, time, timeline, consistency, accessibility & convenience, accuracy, responsiveness, reliability, communication, security, competence.

1. Aspect performance

Project supervision in the aspect of fulfilling building functions is a critical stage in building construction aimed at ensuring that the project achieves its objectives functional which has set. Important for understood that function building specifically physical development at the District Public Works and Spatial Planning (PUPR) Department Maluku The center covers various aspects, such as safety, sustainability and efficient use of space. By because that, supervision must done with carefully for ensure all aspect this fulfilled. The project supervisor is responsible for monitoring each stage of construction, starting from planning to implementation, to ensure that design plans and technical specifications which has Approved fulfilled with Good. They Also must behave proactive in identify potency problems and look for that solution on time.

Based on interviews, it is known that the aspects of fulfilling the building's function have been completed fulfilled in 4 (four) physical developments in the Water Resources Sector of the Maluku PUPR Service Middle. This aspect is an important step in ensuring that the building is constructed truly in accordance with the goals and expectations and can be used safely and efficient accordingly with its function.

2. Aspect conformance

Supervision on aspect scope work in accordance with document contract is stagescritical in management project which aim for ensure that all work which carried out in accordance with the terms and conditions stipulated in the contract. Based on the results interviews revealed that several steps had been taken by the Water Resources Sector Service PUPR Central Maluku is as following:

a. Reviews Document Contract

The first step in supervision is to deeply understand the contract documents. This covers everything regulations, specifications technical, schedule projects, and other requirements which was agreed upon by all related parties.

b. Compile checklist

Prepare a checklist containing all the requirements and work that must be carried out accordingly with contract documents. This will be an important guide in ensuring that it does not there's a part that overlooked in supervision.

c. Assignments and Not quite enough Answer

Duties and responsibilities of the project supervisor and related project team in implementing supervision. Every team member must have an understanding clear about his role in ensure work is in accordance with the contract.

d. Monitoring

Do monitoring in a way periodically implementation work And compare withwhat which has arranged in document contract. As well as notice quality work, fulfillment deadlines, and compliance to technical specifications.

e. Inspection

Carry out regular inspections of key parts of the work to ensure that work carried out in accordance with that standard has been established.

f. Revision

If there are changes or revisions in the contract documents, the existing changes are documented well and implemented correctly. This involves communication with all parties related and obtain necessary approvals.

g. Record documentation footsteps

Make documentation from all findings, inspection, and communication related with supervision. This includes photos, inspection reports, emails, and other possible records required to track progress project.

h. Performance evaluation

Periodically, evaluate project performance to ensure that all work is being done carried out in accordance with the contract documents. Identify problems or nonconformities needs to be repaired.

i. Corrective action

If there is nonconformity or problem in implementation work, quick take action corrective as soon as possible. This can covers change in plan or repair that job does not comply with specifications.

Based on explanation the is known supervision Which carefully on aspect scope the work is in accordance with the contract documents and has been carried out in accordance with the steps specified is the key to ensuring that the project runs according to expectations and requirements has set, as well as for avoid dispute contract Which Possible arise in Then day.

3. Aspect aesthetic

Supervision of aesthetic aspects is an important step in construction and design projects which aims to ensure that the project reaches the desired level of aesthetics (neatness). Desired or specified in the initial design. The neatness of the physical building in the form of Network Surface Irrigation for 250 ha, 1,385 meter long river embankment, strengthening buildings cliffs 277 meters long and seawalls and coastal security structures 1636 meters long is known through interview with the Department PUPR Maluku Middle.

"Since the start of the project, we have scheduled meetings with the contractor to discuss aspect aesthetics from building physique which will done. We also ensure that material Which used in accordance with specification design And appropriate with appearance which are desired" (Interview with Head Field Source Power Water Service PUPR Maluku Middle)

"After the project is completed, we carry out a final evaluation with the team to ensure that the aesthetic aspect, in this case prioritizing elements of building neatness has been fulfilled accordingly with initial vision." (Interview with Secretary Service PUPR Maluku Middle)

Apart from that, it is also known that monitoring of aesthetic aspects is carried out regularly through consult the design team to check progress and ensure that design elements and materials are used in accordance with the contract. Likewise, inspections are carried out during its progress project to look closely at the overall appearance of the building to reflect the established aesthetic vision agreed.

Based on interviews it is known that Supervision of aesthetic aspects has begun planning stage to project completion to ensure that the development project achieves the expected level of neatness is in accordance with the initial design and meets the expectations of the project owner in this case the Central Maluku PUPR Service and other stakeholders at large ie general public.

4. Aspect time

Supervision of aspects of work planning or scheduling what is realistic is the steps key in management project which aim for ensure that project walk in accordance with a predetermined schedule. Especially for government projects that use the APBN and APBD, A realistic schedule is very important because it relates to targets and realization budget. Team project must own understanding Which Good about

timetable beginning project. This includes an understanding of key activities, dependencies between activities, and deadlines time which has been established. Based on interview is known that:

"We review the work plan periodically to check whether there is change which need accommodated in timetable, like change scope project, resource constraints, or technical issues that may arise." (Interview with Head Resource Field Service Water PUPR Central Maluku).

"We routine communicate possibility change timetable or problem which appear to all over team project and holder interest related. This possible all parties to have a clear understanding of the schedule changes and how they can contribute to solving the problem." (Interview with staff on Resource Field Water Service PUPR Central Maluku).

"In work implementation, potential considerations risks too we do what you can affect the project schedule. We create appropriate mitigation plans to address risks This If happen". (Interview with Head Service PUPR Central Maluku).

Based on results interview is known that supervision Which carefully to aspect plan work And scheduling Which realistic has accomplished with Good For help ensuring that projects proceed according to plan, avoiding delays who does not desired, and meet expectations holder interest.

5. Aspect timelines

Supervision of the aspect of project completion time is an activity that aims to ensure that the project can be completed on time as stated planned previously. Wrong One step in aspect timelines is give implementation plan and sequence of work implementation within the specified time period. Based on the results interview with party Service PUPR Regency Maluku Tengah is known several things:

" The supervision we carry out regarding timelines is to ensure the start time and project completion, planning cash flows, and evaluating the effects of changes to completion time and project costs" (Interview with Head of Water Resources Division Service PUPR Central Maluku).

"We carry out direct supervision of the construction implementation to ensure the project can be completed within the specified time limit. We also always pay attention time control because lateness solution project inaccurate consequences time that is planned will be very impact on the project" (Interview with Head Service PUPR Central Maluku).

Based on results interview is known also that for ensure implementation project running according to time, there are several stages that have been carried out by the Regency PUPR Service Maluku Middle namely:

- 1) Planning: ensuring that project planning has been carried out properly and appropriately with project requirements. This includes budget, schedule and resource planning human being needed.
- 2) Implementation: ensuring that project implementation goes according to the plans that have been made. This includes procurement of materials and equipment, implementation of work, and Coordination between team
- 3) Supervision: monitor progress, quality, and expenditure project. Matter this covers monitoring construction progress at each stage of work, such as installation of structures, walls, And etc.
- 4) Control: carry out control over the implementation of the contract either directly or through another appointed party. This includes controlling the work

schedule And method Work

- 5) Completion: completing final details, commissioning, and handover. This ensures that project have been completed in accordance with specifications Which has been established

Based on the results of the interview, it is known that monitoring of the timelines aspect has been carried out properly through preventive steps to ensure physical development projects is the responsibility of the Water Resources Division of the Central Maluku PUPR Service can be resolved in accordance with Which has been planned previously.

6. Aspect consistency

Aspect this related with guard consistency between plan and implementation project, so that projects can be completed effectively and efficiently. By maintaining consistency between project planning and implementation, it is hoped that the project can completed effectively and efficiently in accordance with which has been planned previously.

Based on results interview with Secretary Service PUPR Regency Maluku Middle is known that:

"During the implementation of physical development projects in 2021 to 2022, deep consistency project monitoring refers to ensuring conformity between plan and implementation project. Consistent No only on proof physique just, but also related with consistency in terms of administration and reporting".

This was also stated by staff in the Water Resources Sector of the Maluku PUPR Service Middle:

"commitment And consistency in licensing as well as supervision from provider service in carry out Health And Safety Work (K3) during implementation project infrastructure."

"We monitor this aspect by maintaining clarity and consistency of information delivered in the project monitoring process. Mobilization must have been carried out most slow within 30 (thirty) the day after commencement of project implementation."

Based on interviews, it is also known that there are several methods used by the PUPR Service Regency Central Maluku to measure consistency every project is:

- a. Carry out regular measurements and monitoring of project progress to ensure that the project runs according to the predetermined schedule. This matter this can be done by comparing the project schedule with actual implementation project.
- b. Monitoring process supervision project for ensure clarity and consistency information submitted by the contractor as project implementer. This can done with monitor process project supervision continuously continuously.
- c. Do control to implementation contract Good in a way direct or through another appointed party. This can be done by ensuring that there are coordination which between various parties which involved in the project.

Based on results interview is known that implementation project has done in a way consistent, from an administrative and technical perspective. This is done through a monitoring mechanism which through a number of stages, start planning until monitoring and evaluation.

7. Aspect accessibility & convenience

In the context of project supervision, accessibility & convenience refers to ease access and services provided to various parties involved in the project. This aspect ensure there is good coordination between the various parties involved in the project, e.g contractors, consultants and supervisors. This aims to ensure that the project can runs smoothly and according to the predetermined schedule. Based on interview results with the Department PUPR Maluku Regency Middle to know that:

"We always ensure that the services provided in project supervision are easy accessible and cooperative. One of them is the provision of easily accessible project reports and be delivered in a way regular to party which interested." (Interview with Head of Division Source Power Service Water PUPR Central Maluku).

"We dare to guarantee and ensure that information related to the project is easy to access and easy to access available in format which easy understood. We use technology which possible accessibility for person with various ability, like accessibility web." (Interview with Head Service PUPR Maluku Middle).

Based on the results of observations, it is known that in the implementation of physical development projects which is within the scope of the main duties of the Central Maluku PUPR Service, supervision has been carried out well and gives results that in that aspect Accessibility refers to convenience access and availability of project related information, easily accessible and available in easy formats understood. Whereas from aspect convenience, which refers on convenience service which provided in project supervision, providing project reports that are easy to access and submit regularly to interest parties, in this case the Maluku Regency PUPR Service Middle, Government Regency Maluku Middle and Body Supervisor Finance Republic Indonesia.

8. Aspect accuracy

The accuracy aspect in the project refers to the shop drawings submitted before implementation construction, conformity of the project report with actual conditions in the field, determination in selecting suppliers and subcontractors. Shop drawings in the physical construction of Surface Irrigation Networks, river embankments, cliff strengthening buildings as well as seawalls and coastal security buildings form technical drawings made by contractors, suppliers, subcontractors and consultants as a reference in carry out work on building construction projects.

Based on results interview with party Service PUPR Regency Maluku Tengah is known that:

"Shop drawing project this containing details from making component construction nor components that will be used during the installation process. Shop drawings are made to explain the fabrication and/or installation process of these items to the production or installation crew of contractor." (Interview with Head Field Source Power Water Service PUPR Maluku Middle).

"Shop drawings are different from architect's drawings, and the main focus of shop drawings is on specific product or installation, and does not include information about the product or installation else, except if integration with products concerned is required. Shop drawings must covers information which required For architect For compared to with specification And picture." (Interview with Team Technical Service PUPR Maluku Middle).

Based on results interview is known that aspect accuracy in supervision project development physique related main duties Service PUPR Maluku Middle includes several matter ie:

- a. Ensure that report project which be delivered to party which interested in accordance with the reality that occurs in the field. This involves supervision regarding suitability report project with performance contractor.
- b. Ensure that project costs are within the established budget. This matter involve supervision to consultant performance supervisor And allocation fund
- c. Ensure that the project can be completed on time as stated planned beforehand. This involves monitoring performance over time project construction.

Based on the explanation above related to the implementation of supervision on accuracy aspect, it is in accordance with the target and the realization in the field which includes on shop accuracy drawings submitted before construction, suitability of the project report to conditions actual in the field, decisions in choosing a supplier and subcontractors.

9. Aspect responsiveness

This aspect includes the speed of handling problems (cost, quality, time, conflict, etc.) what happens in the field and speed in responding to project owner requests. Responsiveness in supervising physical development projects at the Central Maluku Regency PUPR Service, referring on ability supervisor project For respond change Which happen with fast And effective.

The results of interviews with the PUPR Department of Central Maluku Regency are as follows: "supervision on aspect This done with do monitoring project in a way Keep going-continuously For ensure that project walk in accordance with plan Which has made. Matter this covers supervision to performance time on project construction." (Interview with the Department Secretary PUPR Central Maluku).

"we do monitoring For ensure exists coordination Which Good between various parties involved in the project, such as contractors, consultants and supervisors. This matter aims to ensure that the project can run smoothly and in accordance with timetable which has determined." (Interview with Head Service PUPR Maluku Middle).

"As commitment-making officials, we do it control over implementation contract either directly or through another appointed party. This can be done by ensuring good coordination between the various parties involved project." (Interview with Head Field Source Power Water Service PUPR Maluku Middle).

Supervision in aspect responsiveness on project development physique Service PUPR Central Maluku Regency has been implemented well for ensure that supervision projects can respond to changes that occur quickly and effectively. This includes supervision to change design, change timetable, and change other which can influence project.

10. Aspect reliability

Reliability aspects in project implementation includes: safety supervision and occupational health (K3) during construction which is an important part of ensuring that work is carried out safely and does not endanger the health of workers. Health and Work Safety (K3) is an effort to create a healthy and safe work environment, so that can reduce probability accident work/illness consequence negligence which result demotivation and deficiency productivity Work.

Results of interviews with the Central Maluku Regency PUPR Service regarding K3 aspects revealed as follows:

"as agency technical related project development network irrigation surface, embankment rivers, cliff strengthening buildings as well as seawalls and coastal

security buildings, we do monitoring project in a way continuously For ensure that work carried out safely and in accordance with established K3 standards." (Interview with Head Service PUPR Central Maluku).

"We ordered the contractor to regularly carry out brief counseling or safety talks such as a short motivation about work safety which is generally done every time you start work or on certain days for 10 minutes before work starts. Also putting up posters work safety as well as showing films or slides about work safety." (Interview with Head of Division Source Power Water Service PUPR Maluku Middle).

Thereby also stated by Secretary Service Regency PUPR Maluku Middle:

"to ensure fulfillment K3, we carry out control over implementation contract either directly or through another appointed party. This can be done by ensuring good coordination between the various parties involved project."

Results interview with party contractor Also show that existence safety The committee aims to create a working atmosphere which is safe, instills flavor awareness or discipline Which very tall about importance safety Work And giving training K3.

Based on the results of the interview, it is known that reliability aspects in project implementation in The Maluku Regency PUPR Service has been fulfilled with good coordination between various party Which involved in project, like contractor, consultant, And party supervisor. Matter this aims to ensure that project can walk with fluent and in accordance with a schedule which has set.

11. Aspect communications

Aspect communication in implementation project refers on ability manager project in communicating both verbally and in writing, informing of possible risks occurs during construction, integrated communication between contractors, subcontractors and suppliers. Good communication is the foundation of successful collaboration in project management efficient. Based on results interview, is known that aspect communication on implementation Physical development at the PUPR Department of Central Maluku Regency was implemented in several ways step ie :

- a. Carrying out communication planning to determine stakeholder information needs, and develop a communications plan that meets those needs. This matter includes collecting information, storing information, and distributing information to stakeholders.
- b. Carry out communication control to monitor and regulate the flow of internal information project. This includes monitoring the information submitted, regulation Genre information, and control over change information.
- c. Coordinating good relations between the various parties involved in the project, such as contractors, consultants and supervisors. This aims to ensure that project can walk with fluent and in accordance with timetable which has set.
- d. Deliver clear information to those stakeholders easy to understand through the use of language that is easy to understand, conveying information in an orderly manner, and media use Which right for convey information.

Based on the results of the interview, it is known that the communication aspect of project implementation Physical development at the PUPR Department of Central Maluku Regency is being carried out well which aim for increase collaboration between various party which involved, reminded effectiveness, transparency and responsiveness. With good communication, stakeholders can understand the information which conveyed more clearly and can provide input that more precise.

12. Aspect security

Security aspect in project implementation is very important to ensure security and safety during implementation project. Security and safety must fulfil four matters namely information security, asset security, work safety and physical security. Based on the results interview with party from the Department PUPR Regency Maluku Middle is known that:

"Security information done in implementation project development physique which held by Field Source Power Water Service PUPR Maluku Middle, Wrong the only one related to information security, both internally and externally. It means that not all internal information can be accessed by external parties, because there are things that becomes an internal discourse and there is a public discourse" (Interview with Head of Resources Power Service Water PUPR Central Maluku).

"Security of assets, both assets of the company winning the tender and assets owned by the government always maintained during project implementation. This includes protecting the environment/place work and security tools and equipment used during the project." Interview with technical staff Service PUPR Central Maluku).

On the security aspect of work safety, Secretary of the Central Maluku Regency PUPR Service explains that work safety during project implementation always taken care of identification risk safety Work, control risk safety Work, And training safety Work. Thereby Also with security physique which covers security regarding access to the project site, security of materials and equipment used in the project, and security towards workers And local communities.

Based on the results above, it is known that the security aspect in project implementation Physical development at the PUPR Department of Central Maluku Regency has been carried out well and help in ensure success And continuity project in period Which will come.

13. Aspect competence

The competency aspect in project implementation is very important to ensure that the project can be implemented properly and in accordance with established standards. Competence in the context of project supervision refers to the capabilities and qualifications required by the individual or team responsible for overseeing and managing the project. Related with the implementation of development projects physical Surface Irrigation Network, river embankment, cliff strengthening buildings as well as seawalls and coastal security buildings in Maluku Regency Middle, There is a number of embodiment competence Which intended ie :

Technical qualifications which include understanding of the technology used, comprehension of the processes involved in the project, and an understanding of the standards required fulfilled.

Experience in previous project implementation can help in improving competence in implementation project Which covers experience in manage project, experience in working with various parties involved in the project, and experience in solve that problem related to the project.

Financial capacity which includes the ability to manage project budgets, capabilities to manage financial risks, and the ability to manage financial resources available.

Human resources which include the ability to recruit and manage resources man which quality, ability for develop Skills And knowledge source Power man,

and abilities to motivate human Resources.

Attitude professional which covers ability For Work with various party which involvement in projects, the ability to appreciate differences of opinion, and the ability to take that decision appropriate.

Based on the results of the interview, several things were explained: competence in implementation Physical development projects at the PUPR Department of Central Maluku Regency include technical capabilities, leadership ability, ability intellectual, spiritual abilities, social abilities, communication skills and management skills. In its implementation in the field, aspects this competency meets all the requirements, both at the top managerial (supervisory) level to low managerial (worker project).

Discussion

Supervision project development physique on agency government need attention specifically regarding the aspect of competent supervision. One thing to pay attention to is qualification technical. Qualification technical which strong very important in supervision project physical development. This includes understanding the technology used, comprehension of the processes involved in the project, and an understanding of the standards required fulfilled. Additionally, experience in previous project supervision can be helpful in increase competence in supervision project development physique. Matter this covers experience in managing projects, experience in working with various parties involved in project, And experience in finish problem Which related with project.

This is in line with research by Tumigolung et al. (2013) who found that quality aspects, cost aspects, personnel qualification aspects and reporting aspects had a particularly significant influence on increasing or decreasing the performance of road and bridge project supervisory consultants in North Sulawesi Province. Likewise with research Hidayah & Soekiman (2015), Aditya (2021) and Rivelino & Soekiman (2013).

In addition, good leadership skills are essential in project supervision physical development. This includes the ability to direct and manage a team of supervisors projects, including resource and task coordination, delegation, negotiation, time management, and human Resource Management. Communication skills are also very important in supervision physical development projects. Ability to communicate clearly and effectively with Team members, clients, suppliers, and other stakeholders are very important in project oversight physical development. This includes the ability to understand and convey information clearly, as well as the ability to handle conflicts and problems that arise. Importance Leadership abilities in implementing this project are in line with research Suhariyanto (2018) and Tama (2020).

Additionally, the project supervisor's resource management capabilities, including people, time, and budget, so that supervision of physical development projects can be carried out efficiently and effective. In this case, government agencies need to ensure that resources are available used effectively and efficiently to achieve project goals. Lastly, government agencies need to ensure that supervision of physical development projects is carried out with due attention aspects of work safety and security, so as to minimize the risk of work accidents and other losses. The importance of work safety aspects in project implementation is the focus study which done by Hidayati (2020) and Elliot (2020).

CONCLUSION

Based on results analysis And discussion concluded that supervision implementation Project in the Water Resources Sector of the District Public Works and

Spatial Planning Department Maluku Centrally reviewed from indicators of performance, conformance, aesthetics, time, timelines, consistency, accessibility & convenience, accuracy, responsiveness, reliability, communication, security, competence Already in accordance with regulations and standard operational that procedure applies.

REFERENCES

- Ahadian, S., Finbloom, J. A., Mofidfar, M., Diltemiz, S. E., Nasrollahi, F., Davoodi, E., Hosseini, V., Mylonaki, I., Sangabathuni, S., & Montazerian, H. (2020). Micro and nanoscale technologies in oral drug delivery. *Advanced Drug Delivery Reviews*, 157, 37–62.
- Aituru, Y. P. (2022). Juridical Analysis Of Regional Income And Expenditure Budget Management And Legislation Functions Of Regional People's Representative Boards In Keerom District. *Journal of Positive School Psychology*, 7496–7513.
- de Bem, P. P., de Carvalho Júnior, O. A., de Carvalho, O. L. F., Gomes, R. A. T., Guimarães, R. F., & Pimentel, C. M. M. (2021). Irrigated rice crop identification in Southern Brazil using convolutional neural networks and Sentinel-1 time series. *Remote Sensing Applications: Society and Environment*, 24, 100627.
- Djaelani, M., & Retnowati, E. (2022). Pengaruh Pengawasan Kerja Dan Penerapan Program Keselamatan Dan Kesehatan Kerja Terhadap Produktivitas Pekerja Proyek Konstruksi. *Jurnal Ilmiah Satyagraha*, 5(2), 32–38.
- Elliot, E. (2020). *Sufrir nunca es en vano*. B&H Publishing Group.
- Hidayah, T. P., & Soekiman, A. (2015). Kajian Kinerja Konsultan Supervisi Proyek Konstruksi Jalan Di Wilayah Aceh. *Jurnal Teknik Sipil Unaya*, 1(2), 105–116.
- Hidayati, R. A. (2020). *Uji aktivitas antibakteri sediaan gel hand sanitizer ekstrak kulit buah jengkol (archidendron pauciflorum (benth.) nielsen) terhadap bakteri escherichia coli*. Stikes Karya Putra Bangsa Tulungagung.
- Kerzner, H. (2018). *Project management best practices: Achieving global excellence*. John Wiley & Sons.
- Loch, C., Mähring, M., & Sommer, S. (2017). Supervising projects you don't (fully) understand: Lessons for effective project governance by steering committees. *California Management Review*, 59(2), 45–67.
- Lyanawati, Y. M., Mulyadi, L., Wulandari, L. K., Hidayat, S., & Maranatha, W. (2022). Analysis to Factors Affecting Contractor Work Performance to Quality of Road Improvement Projects in Probolinggo Regency. *Journal of Architecture and Civil Engineering*, 7(6).
- Permatasari, I. R. I., Mayulu, N., & Hamel, R. (2013). Analisa riwayat orang tua sebagai faktor resiko obesitas pada anak SD di Kota Manado. *Jurnal Keperawatan*, 1(1).
- Rochman, F., & Wahyuni, H. C. (2017). Analisa pengaruh pengendalian kinerja proyek terhadap mutu proyek konstruksi dengan menggunakan uji statistika. *J@ Ti Undip: Jurnal Teknik Industri*, 12(1), 1–6.
- Ruci, M., & Kristiana, W. (2019). Pandangan Pemilik Proyek Terhadap Kinerja Kontraktor Pada Pekerjaan Konstruksi Di Kabupaten Barito Timur. *Jurnal Teknika: Jurnal Teoritis Dan Terapan Bidang Keteknikan*, 3(1), 53–63.
- Setiawan, B., & Febryanto, F. (2018). Analisis Kinerja Konsultan Pengawas Pada Proyek Gedung Pemerintah Daerah Kabupaten Kampar. *Jurnal Teknik Industri Terintegrasi (JUTIN)*, 1(2), 69–73.
- Suhariyanto, D., & Putro, T. A. (2018). Analisis pengawasan dan disiplin kerja terhadap kinerja karyawan CV Tiga Putra. *Jurnal Penelitian Manajemen Terapan (PENATARAN)*, 3(1), 81–92.
- Tama, A. K., Anggraini, L., & Tutuko, B. (2020). Analisis Kinerja Manajemen Konstruksi

- Pada Proyek Gedung Digitasi Universitas Negeri Semarang. *Jurnal Teknik Sipil*, 3, Tinoco, C., Julio, N., Meirelles, B., Pineda, R., Figueroa, R., Urrutia, R., & Parra, Ó. (2022). Water resources management in Mexico, Chile and Brazil: comparative analysis of their progress on SDG 6.5. 1 and the role of governance. *Sustainability*, 14(10), 5814.
- Tumigolung, H. C. S., Wungouw, H., & Onibala, F. (2013). Pengaruh pendidikan kesehatan terhadap tingkat pengetahuan siswa tentang bahaya merokok di SMA Negeri 1 Manado. *Jurnal Keperawatan*, 1(1).
- Van Greuning, H., & Bratanovic, S. B. (2020). *Analyzing banking risk: a framework for assessing corporate governance and risk management*. World Bank Publications.

Copyright holder:

Sarbun Tuankotta, Tehubijuluw Zacharias, Samson Laurens (2024)

First publication right:

Journal of Social Science

This article is licensed under:

