

The Implementation of Health Protocol in Irrigation Small Scale Project in Padang Pariaman District

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Abstract—Infrastructures play an essential role in the development and revitalization of the economy of a country. However, the outbreak of COVID-19 and its spreading have hindered the acceleration of Indonesia's development. Particularly in Irrigation Projects, the Government of Indonesia combined the Cash for Work Program (in Bahasa: 'Padat Karya Tunai', abbreviated as PKT) and Accelerated Program for Improving Irrigation Water Management (in Bahasa: 'Program Percepatan Peningkatan Tata Guna Air Irigasi', abbreviated as P3-TGAI), which empowered the community during its implementation. As the projects involved many workers, massive efforts are needed to prevent the spreading of COVID-19. The Ministry of Public Works and Housing (PW-H) issued ministerial instruction number 2-year 2020 regarding the health protocol to avoid spreading COVID-19. The study's objective is to determine the implementation of the Ministry's instruction in small-scale irrigation projects. Primary and secondary data were used. A set of questionnaires was distributed to 22 respondents to assess the reliability perception and implementation of Ministry Instructions at the project site. This study used Descriptive Statistics, Inference Statistics, Gap, and Quadrant Analysis methods to describe whether the instructions were well-implemented. The results of this study show that the most significant gap in reliability perception and implementation is the instruction to "Measure the body temperature of all workers and employees," with a value of 0.64, which shows a significant difference. Based on quadrant analysis, the position of this instruction is also in quadrant A, which means that this instruction is a top priority for attention in the project.

Keywords: Irrigation project; coronavirus disease (COVID-19) pandemic; health protocol; P3-TGAI; cash for work program.

Manuscript received 21 Aug. 2022; revised 14 Jul. 2023; accepted 18 Aug. 2023. Date of publication 31 Aug. 2023. IJASEIT is licensed under a Creative Commons Attribution-Share Alike 4.0 International License.



I. INTRODUCTION

Economic growth and development were disrupted during the Coronavirus disease (COVID-19) pandemic. As a result, people's ability to purchase decreased significantly. To solve this problem, particularly in rural areas, the government combined the Cash for Work (PKT) Program and Accelerated Program for Improving Irrigation Water Management (P3-TGAI). The purpose is to empower the community and to increase community revenue due to COVID-19. The PKT program is implemented through infrastructure development involving local communities as development actors, especially small-scale infrastructure. So, it is hoped that the PKT program can help people affected by COVID-19, reducing unemployment and maintaining the purchasing power of people in rural areas or distributing funds to develop remote villages [1], [2].

The PKT scheme aims to employ many workers by arranging direct cash salaries for laborers to increase people's purchasing ability, economic growth, and community welfare. Law No. 6/2014 Article 4 concerning Villages stated that village regulation aims to increase the economy of rural communities, reduce development gaps, and bolster rural communities as subjects of development [3].

P3-TGAI is a tertiary irrigation channel construction project carried out by farmers or residents with wages for them to increase the income of farmers or villagers, especially between the two planting and harvesting seasons [3]. This program is a form of a Community Based Infrastructure Program. Its implementation aims to foster the participation of a community group called Water User Farmers (in Bahasa: 'Perkumpulan Petani Pemakai Air', abbreviated as P3A) in repairing, rehabilitating, and improving irrigation networks based on community needs and principles of independence. Adji et al. [4] stated that implementing cash-for-work collaboration with P3-TGAI facilitated communities to

increase their income during the COVID-19 pandemic. On the other hand, they also noted that not all health protocols were obeyed, including a lack of discipline in wearing a mask. As a result of the COVID-19 pandemic period and to follow up on the direction of the President of the Republic of Indonesia on March 15, 2020, regarding a plan to prevent COVID-19, and considering that the COVID-19 outbreak was classified as an Extraordinary Event (in Bahasa: 'Keadaan Luar Biasa', abbreviated as KLB) by the Ministry of Health, Indonesia needs to make efforts to prevent the spreading and impact of COVID-19, including in construction sector. Thus, a particular health protocol for the prevention of the spreading of COVID-19 in construction projects is required. It will be part of the overall policy for realizing construction safety, including occupational health and safety, public safety, and environmental safety, at every stage of the implementation of construction services [5]. The main problems COVID-19 posed for irrigation projects include labor shortages due to lockdowns and travel restrictions, disruptions in the supply chain affecting materials and equipment availability, financial constraints on project funding, reduced maintenance leading to decreased infrastructure efficiency, limited farmer access to irrigation services and participation, challenges in water management, concerns about food security due to decreased agricultural productivity, and complex environmental impacts. These issues varied by region and project scale but collectively posed significant challenges to the operation and success of irrigation projects during the pandemic.

To prevent the spread of COVID-19, The Ministry of Public Works and Housing (PW-H) issued Instruction Number 2 in the year 2020 related to health protocol [6], [7]. There are four schemes in this Ministry of PW-H Instruction in preventing the spreading of the virus, namely: establishing a Prevention Task Force, identifying the potential COVID-19 hazards at the project site, providing health facilities at the project site, and implementing the prevention of the spreading of COVID-19 at the project site. Health protocols are necessary to safeguard the health and well-being of communities, workers, and ecosystems affected by irrigation projects. At the same time, the success and sustainability of irrigation projects often depend on adherence to these protocols to ensure that the benefits of irrigation are realized without compromising public health or the environment. The study aims to determine the implementation of the PW-H Ministry Instruction No. 2 of 2020 related to health protocol for preventing the spreading of COVID-19 in the small-scale project in Padang Pariaman District.

This study's benefit is providing recommendations to the Provincial Offices BWSS-V West Sumatra Province regarding the reliability, implementation, and obstacles faced in implementing the health protocol at the project site based on PW-H Instruction number 2 of 2020.

II. MATERIALS AND METHOD

A. Research Location

The study was carried out in the P3-TGAI Programs in Padang Pariaman District. There are twenty-six P3-TGAI Programs reviewed in Pariaman District. Padang Pariaman is one of the Districts in West Sumatra Province, Indonesia. As shown in Figure 1 below, Padang Pariaman District is

surrounded by Padang City, Solok City, Tanah Datar District, Agam District, and the Mentawai Strait.

B. Materials

In this study, identification of the health protocols implementation to prevent the spreading of COVID-19 was carried out in small-scale construction projects. The health protocols identified were taken from the Instruction of the Ministry of PW-H number 2 in 2020. Fourteen (14) health protocols were investigated as follows:

- Establish a COVID-19 prevention task force.
- Provide education and socialization to all parties involved in the project to protect themselves from COVID-19.
- Delivery of the explanations, recommendations, campaigns, and promotion of COVID-19 prevention techniques every morning, K3 counseling activity (morning safety talk).
- Install posters (flyers) regarding the appeal/recommendation for preventing COVID-19.
- Monitor workers' health conditions and control their mobilization/demobilization.
- Measure the body temperature of all workers and employees.
- Provide health clinic rooms in the field with adequate health facilities and vaccines, vitamins, and nutrients.
- Provide additional facilities, including hand washing basins (water, soap, and hand sanitizer), tissue, and masks in the office and field.
- Give vaccines, vitamins, and additional nutrients to increase worker immunity.
- Handle workers who are positive and have the status of patients under COVID-19 supervision.
- Coordinate cooperation with the nearest hospital and public health center in handling suspected COVID-19.
- Carry out the coordination operations between the COVID-19 prevention task force and the PW-H/Sumatra River Region Office V (in Bahasa: 'Balai Wilayah Sungai Sumatera V', abbreviated as BWSS V) of West Sumatra Province task force.
- Evacuate and spray disinfectants in all places, facilities, and work equipment if suspected COVID-19 is determined.
- Instigate temporary suspension due to positive workers and patient status under COVID-19 surveillance.



Fig. 1 Research location

The data used in this research is primary data. The data was collected by distributing questionnaires to the parties involved in the Accelerated Program for Improving Irrigation Water Management (P3-TGAI). Twenty-two respondents were given the questionnaire, including four respondents from PW-H, three from BWSS V of West Sumatra Province, and fifteen from independent consultants involved in the project. The selection of respondents was based on individuals involved in the project who were familiar with the implementation of Minister Instruction No. 02/IN/M/2020s in the project.

C. Method

Primary data were obtained by providing a set questionnaire and interviews (structured) with several parties, namely, BWSS V West of Sumatra Province Staff, Individual consultants, and Community facilitators. The data collection technique used was purposive sampling. Purposive sampling is a technique with specific considerations [8], [9]. The considerations taken in determining the sample for the purposive sampling technique used in this research are individuals involved in the Accelerated Program for Improving Irrigation Water Management (P3-TGAI). There were seven owners and fifteen independent consultants included as respondents. These Twenty-two respondents were selected based on their involvement in the project and their knowledge of whether Minister Instruction No. 02/IN/M/2020s was implemented.

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Purposive sampling is used when researchers want to target an individual by applying characteristics of research interest [10], [11]. The purposive sampling technique is based on considerations such as the characteristics or nature of a population [12], [13]. A purposive sampling technique was used due to specific concerns [14], [15]. The sample used or taken is not based on strata, random selection, or region but based on purpose [16]–[18].

In the questionnaire, two parts are discussed: the reliability of these health protocols in inhibiting the spreading of COVID-19 in construction projects and the implementation of the health protocol in the field. The assessment of each part uses the Likert scale. There were four scales. Scale one (1) is the lowest, and four (4) is the highest scale. The Likert scale measures someone's opinion or several groups as to a phenomenon where the answer to each instrument item has a graduation from low to high [19]–[21].

The secondary data were obtained from the Instruction of the PW-H Ministry number 2 in the year 2020 regarding the COVID-19 prevention protocol in construction projects and a review of the Implementation Final Report documents of the P3-TGAI Project in the District of Padang Pariaman, West Sumatra Province. In data analysis, descriptive statistics and inference statistics are used, as well as quadrant analysis, to identify the reliability of the PW-H Ministerial Instruction in

preventing the spreading of the COVID-19 virus and identifying the implementation of the Instruction at the project site. Descriptive statistics were used to determine the average reliability perception of the instruction on preventing the transmission of COVID-19 and the implementation of instructions at the project site.

The gap analysis determined the gap between the actual and expected ideal quality [22]–[25]. The gap occurs when users perceive the quality of service they receive is higher than the desired service or lower than the adequate service in the user's interests [26]–[28]. This study conducted a gap analysis to find the difference between the perceived reliability assessment and implementation at the project site. Inference statistics are used to determine whether the difference is significant or not.

Finally, the quadrant analysis Importance-Performance Analysis (IPA) was carried out to determine the performance of the PW-H minister's instructions. Quadrant Analysis was used to identify the planning and control activities that require great attention for effective implementation [29]–[32]. Importance Performance Analysis (IPA) is a technique for identifying service attributes that need improvement and also identifying facts that need to be reduced in priority [33]–[37]. IPA is an analysis of the level of importance and performance that is carried out using a two-dimensional grid that compares the opinion of the importance of a service attribute with the performance of the product attributes [38]–[41]. An overview of the quadrant analysis can be seen in Figure 2:

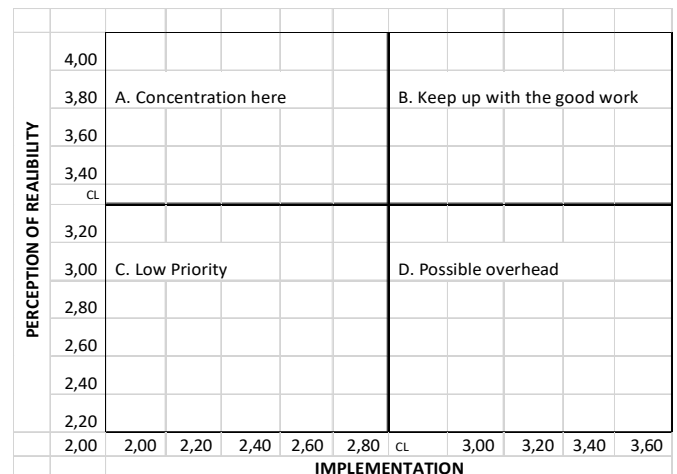


Fig. 2 Cartesian Diagram for Quadrant Analysis

The steps taken in conducting quadrant analysis are as follows:

- Calculating the mean of the reliability perception regarding the Minister's instructions in preventing the spread of COVID-19 at the project site.
- Calculating the mean of each respondent assessment on implementing the Instruction at the project location.
- Plotting the rating mean of the reliability perception and mean perception of implementation in a Cartesian way into quadrants.
- Perform the interpretation and analysis of what indicators fall into four categories:
 - 1) Concentrate here.
 - 2) Keep up the excellent work.
 - 3) Low Priority.
 - 4) Possible overhead.

III. RESULTS AND DISCUSSION

A. The implementation of the Cash for Work (in Bahasa: 'Padat Karya Tunai', abbreviated as PKT) Project collaborated with the P3-TGAI Program

P3-TGAI is a labor-intensive project carried out directly by farmers. Farmers receive assistance and guidance from a support team that has been established. P3-TGAI was created to support food security programs in efforts to improve the economy and welfare of the community through empowering farmer communities in participatory irrigation network improvement, rehabilitation, and enhancement. The recipients of P3-TGAI are the Association of Water User Farmers (P3A), the Association of Water User Farmers Consortium (GP3A), and the Water User Farmers Main Association (IP3A), which are selected through Village Consultation and legalized by the Legal Entity. During the COVID-19 pandemic, the P3-TGAI Project is in line with the Cash for Work Project. Cash for Work is a community empowerment activity, particularly for the poor and marginalized in rural areas, with a focus on utilizing local resources, labor, and technology to provide additional wages/income, increase purchasing power, reduce poverty, and support the reduction of stunting rates. The cash for work project aims to recover the disrupted income of the society during the pandemic. The challenge lies in implementing

limitations to prevent the spread of the COVID-19 virus. Therefore, the government issued Minister Instruction No. 02/IN/M/2020 to restrict work activities at the project site to prevent the spread of the COVID-19 virus.

Through the Directorate General of Water Resources, the government has programmed assistance in empowering farming communities in West Sumatra. This activity is carried out through the P3-TGAI Program for Fiscal Year 2020. One of the main activities of the P3-TGAI is assistance in repairing, rehabilitating, and improving irrigation networks (Figure 3).



Fig. 3 Rehabilitation of tertiary channel by farmers of the P3-TGAI project

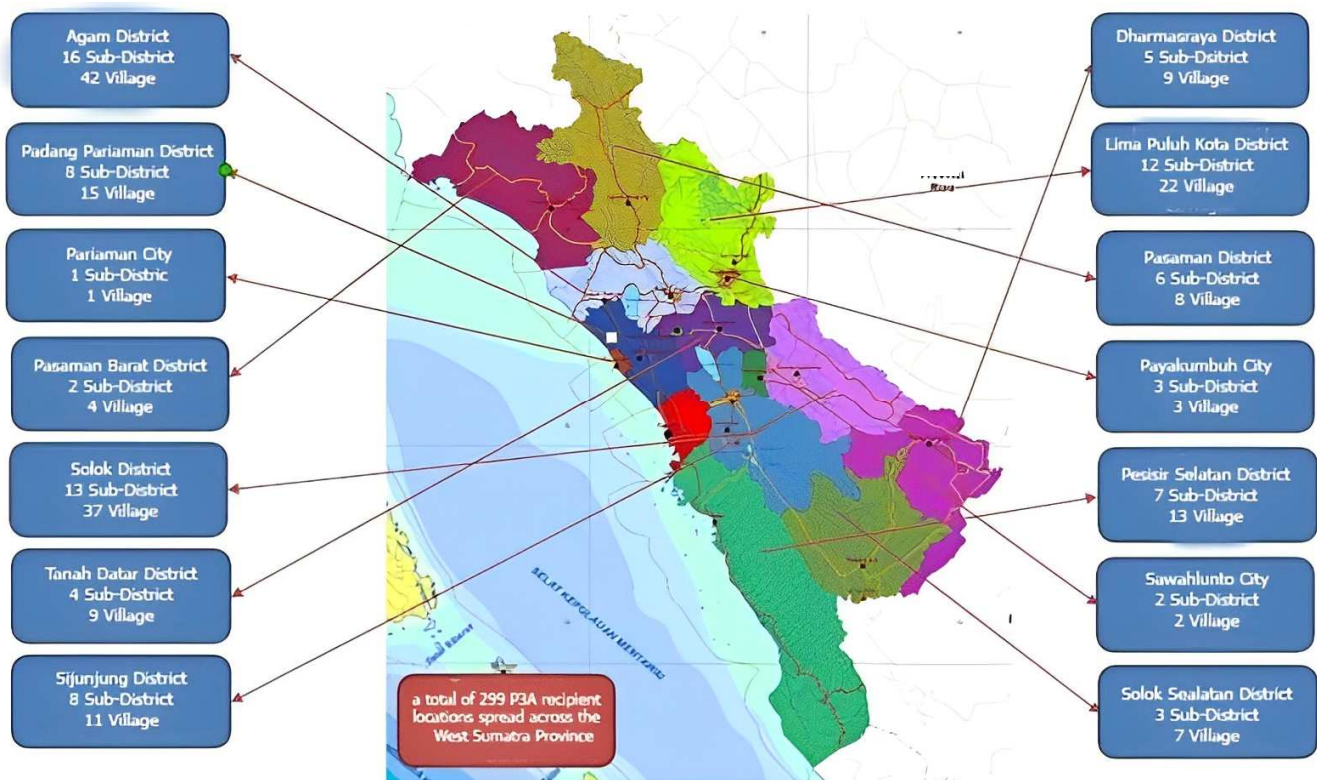


Fig. 4 Recipients of the P3-TGAI Program in West Sumatra Province [3]

This is in line with the General Guidelines for implementing P3-TGAI in the Province of West Sumatra as an effort further to implement P3-TGAI in the province of West Sumatra. Activities are prioritized at the target locations for assistance in repairing, rehabilitating, and improving irrigation networks, namely areas in the district that are

directly damaged. For the working area of BWSS-V, West Sumatra Province, 207 locations are prioritized, and an additional 92 sites will be made to 299 irrigation network locations for P3-TGAI recipients. The total allocation of funds for this activity is IDR 58,305,000,000 [33]. Figure 4 presents the recipient areas of the P3-TGAI program in the province of

West Sumatra. The direct benefit obtained by several related parties in the implementation of the P3-TGAI is that this activity is expected to increase agricultural production in irrigation areas that receive the allocation of funds from the P3-TGAI program.

B. Reliability and Implementation of The Ministry of PWH Instruction number 2-year 2020 in Construction Projects.

In the PW-H Ministry Instruction Number 2 of 2020, it is stated that to carry out project work during the COVID-19 pandemic, there is a COVID-19 prevention protocol mechanism. As mentioned above, fourteen instructions in the health protocols were studied. The method used in the analysis is quadrant analysis. A survey of giving questionnaires and interviews to respondents was carried out on January 13, 2021. In questionnaires, a Likert scale was used as a benchmark for assessing the attributes of questions for two indicators of satisfaction and interest based on respondents' perceptions. The Likert scale used for implementation assessment is 1

(very dissatisfied), 2 (not satisfied), 3 (quite satisfied), 4 (satisfied), and 5 (very satisfied). And for the assessment of reliability, namely: 1 (very unimportant), 2 (not essential), and 3 (quite important), respondents filled out the questionnaire. After the data were obtained, the next step was to find the average reliability and implementation.

Table 1 shows the respondents' answers regarding the level of importance and implementation at the project sites. The respondents' answers represent the average scores given by 22 respondents for each instruction. There are fourteen instructions taken from PH-W Minister Instruction No. 02/IN/M/2020. The average scores are measured on a Likert scale from 1 to 4. For the level of importance, a score of 1 represents the lowest level of importance, while a score of 4 represents the highest level of importance. For implementation in the field, a score of 1 indicates the lowest implementation assessment at the project sites, while a score of 4 indicates the highest implementation assessment.

TABLE I
PAPERS AVERAGE OF RELIABILITY PERCEPTION AND IMPLEMENTATION OF PW-H MINISTRY INSTRUCTION

No	The Instruction of PW-H Ministry No. 2/2020	The Perception of Reliability Inhibits the Spreading of the COVID-19 Virus	Implementation at the Project Location	Gap Between Reliability Perceptions and Implementations
1	Establish a COVID-19 prevention task force in construction projects	3.27	2.68	0.59 (P-value 0.00)
2	Provide education and socialization to all parties involved in the project to protect themselves from COVID-19	3.68	3.41	0.27 (P-value 0.00)
3	Delivery of the explanations, recommendations, campaigns, and promotion of COVID-19 prevention techniques every morning, K3 counseling activity (safety morning talk)	3.05	2.86	0.18 (P-value 0.21)
4	Install posters (flyers) regarding the appeal/recommendation for the prevention of COVID-19	3.73	3.45	0.27 (P-value 0.14)
5	Monitor the health condition of workers and control the mobilization/demobilization of workers	3.41	3.05	0.36 (P-value 0.06)
6	Measure the body temperature of all workers and employees	3.32	2.68	0.64 (P-value 0.03)
7	Provide health clinic rooms in the field equipped with adequate health facilities as well as vaccines, vitamins, and nutrients	2.73	2.36	0.36 (P-value 0.25)
8	Provide additional facilities in the office and field for all workers and visitors, such as hand-washing basins, tissue, and masks	3.64	3.41	0.23 (P-value 0.20)
9	Give vaccines, vitamins, and additional nutrients to increase worker immunity	3.55	3.14	0.41 (P-value 0.03)
10	Handle workers who are positive and have the status of patients under COVID-19 supervision	3.27	3.05	0.23 (P-value 0.23)
11	Carry out cooperation operations with the nearest hospital and public health center in handling suspected COVID-19	3.05	2.95	0.09 (P-value 0.60)
12	Carry out the coordination operations between the COVID-19 prevention task force and the PW-H/BWSSV Ministry task force	3.14	2.91	0.23 (P-value 0.26)
13	Evacuate and spray disinfectants in all places, facilities, and work equipment if suspected COVID-19 is determined	2.95	2.64	0.32 (P-value 0.09)
14	Instigate temporary suspension due to positive workers and patient status under COVID-19 surveillance	3.18	2.77	0.41 (P-value 0.03)
	Average	3.28	2.95	0.33 (P-value 0.01)

In Table 1, the average rating for the fourteen studied levels of importance is 3.28 on a scale of 4. On the other hand, the average rating for implementation in the field is 2.95. The gap between the importance level and implementation score is 0.33, with a P-value of 0.01. Since the P-value is smaller than 0.05, we can conclude that the null hypothesis (H_0) is rejected, indicating a significant difference between the ratings of importance level and implementation in the field. According to the respondents, the implementation of PH-W Minister Instruction No. 02/IN/M/2020 at the project sites is lower than the level of importance stated in the Ministry Instruction for preventing the spread of the Covid-19 virus. Therefore, the difference between the ratings of importance level and implementation is considered significant.

The highest value for reliability perception is 3.73 for the Minister's instruction on "Install posters (flyers) regarding the appeal/recommendation for the prevention of COVID-19," while the lowest is 2.73 for "Provide health clinic space in the field equipped with adequate health facilities as well as vaccines, vitamins and nutrition." While the highest value for implementation is 3.45 for the indicator "Installation of posters (flyers) on appeals/recommendations for the prevention of COVID-19," and the lowest is 2.36 for the indicator "Provision of health clinic space in the field equipped with adequate health facilities as well as vaccines, vitamins, and nutrition."

Table 1 also shows the gap for each Instruction. The Gap score represents the difference between the level of importance and the implementation assessment in the field. From the research findings, respondents gave lower scores for implementation in the field compared to the level of importance. A smaller Gap score indicates lower implementation in the field compared to the level of importance for each instruction. The P-value is used to determine whether the level of importance significantly differs from the implementation assessment in the field. In this case, H_0 : the level of importance is significantly the same as the implementation assessment at the project sites, while H_1 : the level of importance is significantly different from the implementation assessment at the project sites. A conclusion is drawn by comparing the P-value with a significance level of $\alpha = 0.05$. If the P-value is smaller than 0.05, it means that the level of importance is significantly different from the implementation assessment at the project sites, and vice versa.

It can be seen in Table 1 that five gaps out of 14 gaps in the Ministry instruction were significant. The highest gap is the instruction to "Measure the body temperature of all workers and employees," with a value of 0.64, which shows a significant difference. The lower gap occurs in the instruction: "Delivery of the explanations, recommendations, campaigns, promotion of COVID-19 prevention techniques every morning, K3 counseling activity (morning safety talk)." This gap shows a significant difference.

Furthermore, the performance analysis of each instruction above was carried out. The method used was quadrant analysis. Using a Cartesian diagram, the diagram is divided into four parts: A, B, C, and D. The C-line for the X-axis is the average of the perceived reliability, and the C-line for the Y-axis is the mean of the implementation. Figure 5 shows the quadrant analysis, the average perceived reliability, and the average implementation in the field used, namely 3.28 for

perceived trustworthiness and 2.95 for the average implementation in the area. Next, it identifies the position of each instruction on the Cartesian diagram, namely:

1) *Concentrate here*: Factors located in this quadrant are considered Important and Expected factors by actors in the field who are reliable in preventing the spread of COVID-19 at project sites. Still, implementation in the area has not been satisfactory, so related parties must prioritize this indicator. One ministerial instruction in this quadrant is, "Measure of body temperature for all workers and employees." Respondents rated 3.32 above the average perceived reliability rating for all indicators for this Instruction. Meanwhile, the implementation in the field was 2.68, below the respondent's assessment of the performance in the area for the entire instruction, 2.95.

2) *Keep up the excellent work*: This quadrant is for Important and Expected factors. It acts as a supporting factor for customer satisfaction with the aim that the management is obliged to ensure that the performance of the institution it manages can continue to maintain the achievements achieved. In this quadrant, there are instructions No. 2,4,5,8 and 9. Based on Table 1, the result shows that the gaps were not significant regarding the Instruction of "Install posters (flyers) of the appeal/recommendation for the prevention of the spreading of

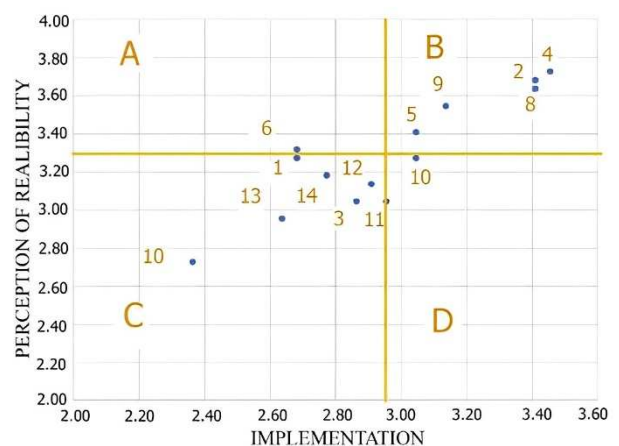


Fig. 5 Performance Analysis of Reliability Perception and Implementation

COVID-19," "Monitor the health condition of workers and controlling the mobilization/demobilization of workers," and "Provide additional facilities including hand washing (water, soap, and hand sanitizer), tissue, masks in the office and field for all workers and guests." But the instructions to pay attention to are for instructions "Provide the education and socialization to all parties involved in the project to protect themselves from COVID-19" and "Give vaccines, vitamins, and additional nutrients to increase worker immunity" due to the gaps between the reliability perception and the implementation are significant for these instructions.

3) *Low Priority*: Instructions in this quadrant have a low Perception or Actual Performance level. They are considered not too Important and Expected by the user so that all parties involved do not need to prioritize or pay too much attention to these instructions. Only two instructions in this quadrant have a significant gap: "Establish a COVID-19 prevention

task force in construction projects" and "Instigate temporary suspension due to positive workers and patient status under COVID-19 surveillance." Regarding the instruction to "Establish a COVID-19 prevention task force in construction projects," respondents did not think this instruction was reliable in preventing the spread of COVID-19. Still, they considered that because this was a self-managed project, there was no need to establish a COVID-19 prevention task force in construction projects. Likewise, with the instruction "Instigate temporary suspension due to positive workers and patient status under COVID-19 surveillance," they considered there is no need for a temporary suspension if there are positive workers for COVID-19. In implementation in project sites, the assessment of these two instructions is lower than the average for overall project site implementation.

Something is interesting about the two instructions which implicitly state the socialization related to COVID-19, namely "Provide the education and socialization to all parties involved in the project to protect themselves from COVID-19," which is in quadrant B, which means that this instruction is considered reliable in preventing the spreading of COVID-19 and is already suitable for implementation at the project site. Indeed, education and socialization are essential for the community [34]. On the other hand, the instruction of "Delivery of the explanations, recommendations, campaigns, promotion of COVID-19 prevention techniques every morning K3 counseling activity (morning safety talk)" is in quadrant C, which means it is not a top priority. This is because respondents agree that dissemination related to COVID-19 is essential but does not have to be done every day when work starts.

4) *Possible overhead (too much)*: Instruction in this quadrant is considered Not Too Important and Not Too Expected, so that all parties involved need to pay attention to the other education with a higher priority for handling, which still requires improvement, such as in quadrant B. There is only one PW-H Ministry Instruction in this quadrant: "Handling of workers who are positive and have the status of patients under Coronavirus disease (COVID-19) supervision."

Body temperature measurement is an early detection method for identifying symptoms of individuals infected with the COVID-19 virus. Increased body temperature can be an initial sign of a viral infection, including COVID-19. Measuring body temperature before starting a project can help detect and identify workers experiencing fever or having a body temperature above the normal range. This allows for the immediate implementation of further safety measures. Some sources also recommend taking body temperature measurements before undertaking any tasks [42], [43], [44], [45]. Based on Table 1, for the level of importance of this instruction, the respondent gave a value of 3.32, while for implementation in the field, the respondent gave a value of 2.68. This is the most significant gap between the level of importance and implementation in the area of all instructions.

An indication of the large gap between the level of importance and implementation can be seen in Figure 6. This study also conducted interviews regarding the implementation of PW-H Ministry Instruction at the project site.

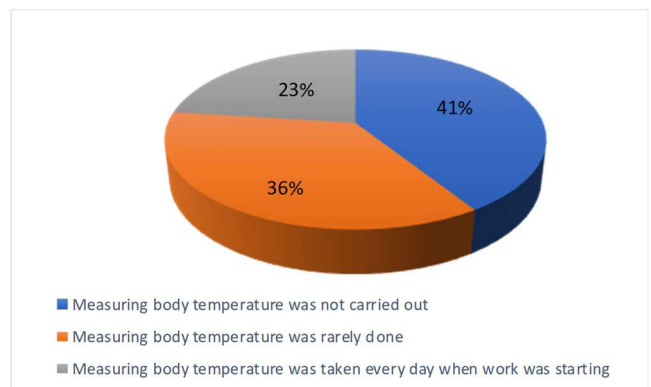


Fig. 6 The Implementation of The Instruction "Measuring Body Temperature at Project Site"

Regarding the "Measure of body temperature for all workers and employees" Instruction, it was identified that 23% of respondents (Figure 6) answered that body temperature measurement activities were carried out every day when work started. In comparison, 77% of respondents answered that body temperature measurements were not carried out and were rarely done. Body temperature measurement is seldom carried out because this project is a community self-management project or the location is in a remote village.

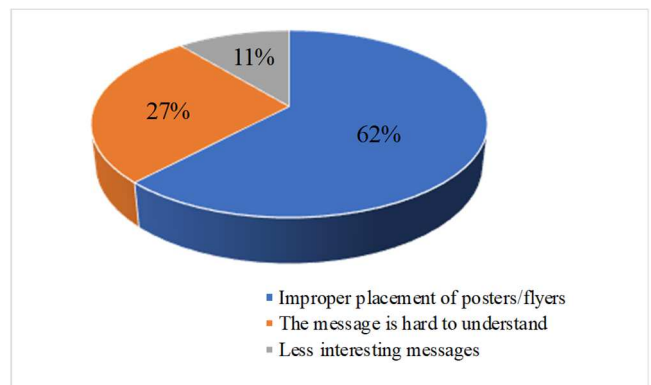


Fig. 7 Disadvantages of Posters/Flyers Posted at The Project Site

Posting posters and flyers can help increase public awareness about preventive measures to reduce the virus transmission risk. The information conveyed through posters and flyers can motivate individuals to prevent the spread of COVID-19 by adopting healthy practices and reducing risky behaviors. Posting signs and flyers has several advantages over other methods of delivering preventive messages about COVID-19. Posters and flyers provide visual messages that can capture people's attention more effectively than plain text or verbal announcements. Appealing designs and graphics can help convey messages clearly and easily understandable.

In PH-W Minister Instruction No. 02/IN/M/2020, it is also mandated to post posters and flyers at project sites. Respondents gave the highest average score among all the instructions reviewed, 3.73. The implementation score in the field is similar to the level of importance (3.45), as evidenced by the small gap of only 0.27 between the level of significance and implementation (P-value 0.14). A P-value of 0.14 indicates no significant difference between respondents' answers regarding the status of importance and implementation.

However, the effectiveness of posting posters and flyers in preventing the spread of COVID-19 can be influenced by factors such as placement location, attention-grabbing designs, and the ability to reach the appropriate audience. The success of these postings can also depend on the support and active participation of the community.

This study conducted interviews regarding the weaknesses of posters/flyers placed at project sites. The results can be seen in Figure 7. The Figure shows that the weaknesses of signs placed at project sites include improper placement or not readily visible (62%). Furthermore, some posters/flyers are challenging to understand (27%) and could be more visually appealing (11%).

IV. CONCLUSION

The highest gap between the reliability perception of the PW-H Ministry Instruction and the implementation at the project site is the instruction on measurement of the body temperature with a value of 0.64, which shows a significant difference. Based on quadrant analysis, the position of this instruction is also in quadrant A, which means that this instruction is a top priority for attention at the project site. Further, this instruction has to be intensified as 77% stated that it was not carried out and rarely done. Dissemination related to COVID-19 is important but must not be done daily when work starts. The instruction to establish a COVID-19 prevention task force is not considered unreliable in preventing the spreading of COVID-19. As the small-scale irrigation project was considered self-managed, there was no need to establish a COVID-19 prevention task force. Likewise, with the instruction to temporarily suspend the project due to positive workers and patient status under COVID-19 surveillance, they consider there is no need for a temporary suspension. The assessment of these two instructions is lower than the average for overall project site implementation.

As data were obtained from the perception of engineers who worked at the site, we strongly suggest conducting a questionnaire survey among government officials for future research.

ACKNOWLEDGMENT

We thank Universitas Andalas for the Research Grant year 2023, number T/2/UN16.19/IS-PTU-KRP1GB-Unand/2023.

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