



# The Impact of Lack of Human Resources on the Effectiveness of Organizational Performance

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## ABSTRACT

**Purpose** –This study aims to determine efforts to overcome the lack of human resources for the effectiveness of organizational performance at the Animal, Fish, and Plant Quarantine Center of the Riau Islands. **Methodology/approach** – The research approach used is descriptive qualitative, while the data used are primary and secondary data. Primary data were obtained by conducting interviews with the Coordinator of Personnel and Organization of the Indonesian Quarantine Agency, Head of the Center, Head of General Sub-Division, Head of the Work Team, Person in Charge of Service Units and Users of the Animal, Fish, and Plant Quarantine Center of the Riau Islands. Data analysis uses the Miles and Hubberman model which consists of 4 steps, namely data collection, data reduction, data presentation, and drawing conclusions. **Findings** –The results of this study indicate that the lack of human resources at the Animal, Fish, and Plant Quarantine Center of the Riau Islands has impacts such as high workloads, causing stress, reducing performance productivity, and excess working hours (over-time), but does not affect the effectiveness of organizational performance.

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## INTRODUCTION

Human resources, whether referred to as employees, staff, employees and so on, are the subjects that run the organization. The position of human resources in the organization makes it have an active role as an integrator between the system, resources owned by the organization with the goals it wants to achieve. The importance of this is that human resources are one of the factors that cannot be separated from an organization (Soemarsono, 2018). He is a planner and implementer as well as a driver so that organizational goals can be achieved. The availability of human resources in quantity is very much needed with a certain ratio so that an activity can be completed and affects the level of effectiveness and efficiency in completing the work. The number of human resources at the Riau Islands BKHIT who do not meet the Job Analysis and Workload Analysis has an impact on the decline in performance in this agency. One of the organizational performances that it carries out is preventing the entry and spread of Quarantine Plant Pests and Quarantine Animal Diseases. Based on the results of monitoring of Quarantine Plant Pest Organisms (OPTK) in 2019, the CGMMV virus and Phyllocoptruta oleivora mites were found, which are plant pests that are included in the list of OPTK that must be prevented from entering Batam City (BKP Batam, 2019). Regarding Quarantine Animal Pests and Diseases, the

results of laboratory tests on pig samples on Bulan Island, Batam City conducted by the Bukittinggi Veterinary Center in 2023 showed positive results for the ASF/African Swine Fever virus (Wiyoga, 2023). The above situation is a gap phenomenon related to ideal conditions and reality in the field. If the above problems are allowed to drag on, the decline in the performance of the Riau Islands BKHIT organization will continue to repeat itself from time to time. There needs to be a managerial effort to overcome the problem of lack of human resources in the Riau Islands BKHIT work area. The Head of the Center as top management is required to make strategic decisions. Zhang, et al. (2023) said that the quality of strategic decisions contributes to the achievement of organizational goals.

The number of human resources in an agency should be adjusted to the number of work areas that must be carried out public services as well as the job analysis and workload analysis that have been prepared. Rusli and Abdurrahman (2020) stated that the quantity of human resources at the Ministry of Religion Office has a significant effect on employee performance. Rohana, et al. (2016) added that the number and type of employees needed have a major influence on the objectives of human resource planning in an organization. Mahmud, et al. (2021) concluded that the ability of Kedungwaringin District employees is quite good because it is supported by the number of employees it has. However, based on reality, every year the ideal number of human resources in the Animal and Plant Quarantine Division of the Riau Islands BKHIT in Batam City is never fulfilled. Research conducted in an effort to overcome the shortage of human resources places more emphasis on how to calculate the number of human resources needed and improving the quality of human resources through education, training, and so on. Research on calculating the number of human resource needs has been conducted by several researchers. Filani, et al. (2020) used the Workload Indicator Staffing Needs (WISN) method to calculate the need for RM workers in the Filling section at the Pertamina Central Hospital (RSPP). Suryaningsih, et al. (2018) conducted an analysis of the level of absence, workload analysis, and analysis of workforce needs in Line Preparation 1-3 PT XYZ. Hudaningsih and Prayoga (2019) used the FTE (Full Time Equivalent) method to analyze the workload and number of employee needs in the production department of PT. Borsya Cipta Communica.

Research on human resources related to workload analysis has been conducted by the following researchers: Arifin (2020) stated that the right measurement for each operator can be given through workload analysis that determines the company's productivity. Anisa and Prastawa (2018) added that considerations in determining appropriate human resources through workload analysis, job descriptions and working hours. Nur (2016) explained that the accumulation of employees in one work unit and the shortage of employees in other work units are examples of problems related to the professionalism of government agencies. Utami, et al. (2020) explained that the workload analysis conducted in research at Brawijaya University can be used as a basis for planning optimal employee needs. If the number of employees has an imbalance with the workload that should be, it will affect performance. Abdelzاهر and Kharbeche (2022) stated that employees who exceed a certain workload tend to have decreased productivity. Several researchers have conducted research on improving the quality of human resources. Nurhidayat et al. (2020) studied improving the quality of human resources of Posyantek Serpong Utara employees through education. Ngatun (2019) studied improving the quality of human resources of small and medium industry players through training and mentoring. Harini et al. (2015) studied improving the quality of human resources through training for micro business players.

Other studies related to the shortage of human resources in government agencies are more concerned with root causes and solutions to fix them. Matemani and Ndunguru (2019) studied that the cause of the shortage of manpower in the Ministry of Water Affairs of Tanzania was due to lack of promotion, loss of motivation, and low salaries, so that the recommendation given was to issue a salary equalization policy for all government employees including those working in rural areas, thus attracting interest from the community to become employees in the Ministry of Water Affairs. Research on managerial efforts to overcome the shortage of human resources without adding new employees so that organizational performance is maintained has not been widely conducted. Based on the description, it is important and interesting to conduct a study on efforts to overcome the problem of the impact of the shortage of human resources at the Animal, Fish and Plant Quarantine Center of the Riau Islands

## **LITERATURE REVIEW**

The Resourced Based View (RBV) theory was first introduced by Wernerfelt in 1984, which emphasized that the source of competitive advantage comes from internal resources that are rare, valuable, difficult to imitate and irreplaceable (Meldi, 2023). Proponents of this theory argue that internal resources are determinants of organizational performance, where these resources are classified into three large groups, namely: human resources, physical resources, and organizational resources. Human resources consist of employees, training, experience, intelligence, knowledge, skills, abilities. Physical resources include plants and equipment, locations, technology, raw materials, machines. Organizational resources consist of company structure, planning processes, information systems, patents, trademarks, copyrights, databases and so on (Maulana, 2019). According to the RBV theory, organizations are viewed as a collection of resources that can be utilized to gain competitive advantage and strengthen organizational performance, both in the short and long term (Barney, 1991; Penrose, 1959 in Lubis, 2022).

### **Performance**

Performance in management and organizational literature is more widely understood as results or achievements (Sobirin, 2016). Prawirosentono (1999 in Fauzi and Nugroho, 2020) defines performance as the results of work that can be achieved by individuals or groups within an organization related to the authority and responsibility they have to achieve organizational goals legally and without violating the law and in accordance with morals or ethics. Performance according to Corvellec (1995 in Sobirin, 2016) is an event that occurs simultaneously involving actions, the results of those actions, and a comparison between the results of an action with certain measures or benchmarks. Lebas and Euske (2004 in Sobirin, 2016) added the definition of performance as a set of processes that encourage a manager to take the right action today so that it can produce organizational performance in the future, namely organizational effectiveness and efficiency. Stolovitch and Keeps (1992 in Prasetyo, 2023) stated that performance is related to a set of results achieved and refers to the act of achieving and carrying out a requested task. Bangun (2012 in Adamy, 2016) added that performance is the result of work achieved by a person based on certain job requirements. The achievement of individual, group, and organizational tasks in terms of quality and quantity is the definition of performance according to Schermerhorn, Hunt, and Osborn (1991 in Prasetyo, 2023). Donnelly, Gibson, and Ivancevich (1994 in Prasetyo, 2023) provide a reference to performance to the level of success in carrying out tasks and the ability to achieve predetermined goals. Meanwhile, regarding Civil Servants, performance is the work result achieved by each Civil Servant in an organization, work unit, or work team in accordance with the SKP and Work Behavior.

### **Performance Effectiveness**

Effectiveness is a condition that indicates the success of the work that has been set. Work effectiveness is the completion of work on time as determined (Masyita, 2016). This term describes the entire cycle of input, process, and output that refers to the results of an organization, program, or activity that states the extent to which goals (quality, quantity, and time) have been achieved, as well as the measure of success or failure of an organization in achieving its goals and targets (Gani et al., 2021).

### **Performance Indicators**

Performance indicators are defined by Lohman (2003 in Mahsun, 2019) as variables used to quantitatively express the effectiveness and efficiency of a process or operation based on organizational

targets and objectives. Organizational effectiveness indicators are the criteria for organizational effectiveness that must be considered.

## **METHOD**

This study uses a qualitative approach and based on the review of the study is classified into exploratory research. The sources of information used come from interviews with key informants and other informants consisting of: Coordinator of Personnel of the Indonesian Quarantine Agency, Head of the BKHIT Kepri Center, Head of General Sub-Division of BKHIT Kepri, Person in Charge of the BKHIT Kepri Service Unit and Service Users. The selection of informants is based on purposive sampling. The control carried out on this type of research is triangulation of data sources. Observations of real conditions that occur in the work area are carried out to cross-check the primary data that has been taken from the sources. Written documents in the form of laws and regulations, official reports, and other documents are used as triangulation materials for data sources. Interview activities with service users who are customers are carried out directly at the BKHIT Riau Islands service post. The Miles and Hubberman analysis model is used to conduct data analysis.

## **RESULT AND DISCUSSION**

### **Human Resource Shortage Problem**

#### **a. High Workload**

Workload according to Hancock & Meskati (1988 in Lestari, et al. 2022) is

“something that arises from the interaction between the demands of the tasks, the work environment where it is used as a place of work, the skills, behavior, and perceptions of the worker.”

Work can increase if given an ideal workload (Sinaga, et al., 2024). A workload that is too high can cause stress, while a workload that is too low can cause boredom. Everyone has their own workload standards that can be carried to a certain level. According to Mahawati, et al. (2021) there are two factors that influence workload, namely internal factors (somatic and psychological factors) and external factors (physical tasks, work organization, work environment). Sinaga, et al. (2024) added that there are several factors that influence the relationship between workload and employee performance, including job characteristics, individual characteristics and work environment.

From the results of interviews with informants, it was obtained information that the lack of human resources causes a high workload. This is related to the filling of the vacancies in human resources carried out by existing employees. As conveyed by the Head of the Animal, Fish, and Plant Quarantine Center of the Riau Islands

"With the presence of 132 employees, they must carry out their duties and functions according to their respective targets, so that to fill the gap in human resources that do not yet exist, this is done with existing human resources."

This workload occurs because the number of existing human resources must carry out inherent tasks and functions, therefore the vacancies of officials who should carry out these tasks are carried out by existing officials.

The decline in performance initially comes from excessive workload, then causes stress and fatigue. A positive work environment, various supports from management, and workload balancing must be carried out by the organization so that its performance can be achieved, but does not cause stress for employees (Fani and Permana, 2024). Neksen, Wadud, and Handayani (2021) stated that workload has a significant positive effect on employee performance at PT Grup Global Sumatera. Increasing workload will affect employee performance, but if it is too excessive, it has a negative impact, namely causing fatigue both physically and mentally and psychological reactions such as irritability, headaches, and digestive problems.

The organizational performance of the Animal, Fish, and Plant Quarantine Office of the Riau Islands is very high, not balanced by an adequate number of human resources. However, regarding certification at entry and exit points, this high performance is unevenly distributed among the 9 (nine) existing Service Units. From the data from the reconciliation report carried out every month, the Telaga Punggur and Hang Nadim Service Units are the areas with the highest performance among other service units. Meanwhile, the Moro and Natuna Service Units are the areas with the lowest level of certification among other service units. Even with the highest workload, with the number of human resources above 20 people, functional officials in the Telaga Punggur and Hang Nadim Service Units can replace and complement each other if there are functional officials who are given additional tasks. A more effective management strategy needs to be developed to be able to manage the workload, one of the efforts made is by balancing the workload, providing positive support, and creating a conducive work environment (Fani and Permana, 2024).

#### **b. Causes stress**

Due to the lack of human resources, it causes a high workload. This workload condition will affect the psychology of employees. This is as stated by the Head of the Fish Quarantine Team.

"Regarding psychological conditions, they will be affected by the workload, for example, which should be able to be completed by 2-3 people but is only done by 1 person, of course there will be psychological pressure on the personnel concerned."

However, the impact of high workload on stress levels has different effects on each person. In general, employees who experience stress occur in quarantine functional officials who receive additional tasks in the form of secretarial duties where there are no other employees to replace their work duties. This is what happened to the SIMAK State Property (BMN) operator who had a dual position with Fish Quarantine functional, laboratory admin, and assisting analysts in conducting sample testing.

"I have experienced problems. Not too much physically, but more psychologically, it is more stress. Because this additional task has no background at all, suddenly given additional tasks that all have to be learned by themselves. We are confused when asking, no one understands. Then the stress, especially for BMN operators, is very prone when an auditor comes. We don't know the history. If it's complicated from the start, it will be difficult. Once an auditor came and didn't know where the goods were, to the point of stress, because at that time I was breastfeeding so I didn't have time to pump and it got inflamed. I was also stressed when there was an audit, it had to be complete with photos of all the goods, geo tagging, to the point that my menstrual cycle was disturbed due to the effects of stress."

Therefore, regarding the functional officials on duty at the entry and exit points, based on the results of interviews with the Person in Charge of the Tanjung Uban Service Unit, no quarantine functional officials were found to be experiencing stress.

"Regarding any health or mental disorders, for the time being there is no information obtained from officers"

### **c. Decreasing the Quality of Performance Productivity**

Due to the shortage of employees, at certain times it will have an impact on decreasing performance productivity. This was explained by the Person in Charge of the Kijang Service Unit (PJ Satpel):

"Although not too significant, it will affect certain times such as the beginning of the month or when data reconciliation is usually almost the same. Certainly the increased workload can reduce productivity such as monthly reports and reconciliation data becoming slow"

The Head of the Fish Quarantine Team stated regarding the influence of the number of functional human resources of Fish Quarantine currently on the performance of the organization, especially in the field of Fish Quarantine:

"It is clearly influential, because if we look at the facts on the ground, there are several service posts that are held by 1 person. If we look at the frequency of activities, the workload of each personnel looks greater than personnel who only hold 1 service post. Then related to the achievement of performance realization, it will be affected, for example, in 1 service post there is only 1 person. All activities will be handled by 1 person so that it will be difficult to achieve realization"

### **d. Over-time occurs**

Regarding the limited personnel conditions and extensive service posts, each personnel has the potential for overtime. This is as expressed by the Head of the Natuna Service Unit of the Riau Islands BKHIT.

"In order for supervision in the field to be maintained properly, we maximize the empowerment of existing human resources. The risk of overtime is commonplace."

The Head of the Fish Quarantine Team added

"If there are 2-3 personnel with 8 hours of work per day, the work can still be handled, but if it is only done by 1 person, of course the working hours will not be enough, it could be 10-11 hours and result in physical stress on the employee."

The overtime hours worked by quarantine functional officials vary, both in carrying out the certification process and in supervising the arrival of transportation entering their service post area. The person in charge of the Tanjung Uban Service Unit said

"...If the normal time of the transportation traffic hours is from 08.30-19.30, but if there is an additional transportation, it can be until 22.00. In addition, there is a regular schedule that departs at night above 22.00, although the frequency is small, only 2 times a month. And for the Lagoi service post for international traffic, the risk is higher than domestic. There are detention, rejection, and supervision activities. The schedule is from morning to night if there is an addition"

Regarding supervision outside working hours, the Head of the Hang Nadim Service Unit added

"Technically, the workload is already very high. How to carry out certification services during normal hours, also have to carry out supervision, for example at Hang Nadim Airport which supervises aircraft arrivals outside of working hours"

## **Efforts to Overcome the Problem of Human Resource Shortages**

### **a. High Workload**

#### **1) Improving the Quality of Human Resources**

The success of a program or performance achievement depends on the quality of human resources as explained by the Head of the Animal, Fish and Plant Quarantine Center of the Riau Islands

"In filling the gap in human resources, it must be able to be done by existing human resources. This is the commitment of the Animal, Fish, and Plant Quarantine Center of the Riau Islands because to make activities successful, it is not seen from quantity but quality"

In line with this, the Head of General Affairs said that strengthening human resources is done by conducting In House Training, training, and internships. In terms of laboratory testing, the Head of the Animal Quarantine Team stated that the performance of laboratory analysts is not related to the number of human resources but is related to the expertise or level of competence of their laboratory analysts.

Human resource planning can help identify shortages or excesses of manpower in government agencies. Through this planning, training and development needs can be identified and implemented so that proper training helps in developing the skills needed to improve their performance (Jitmau, et al., 2024). Muchtiwibowo, et al. (2019 in Andini and Azzahra, 2023) added that limited human resources can be overcome by implementing workforce training and development strategies or by designing strategic strategies. Training organized by the Indonesian Quarantine Agency to support organizational performance includes laboratory analyst training, fumigation auditor training, IKT and ISPM 15, Special Police (POL SUS) training, Civil Servant Investigators (PPNS), and Intelligence. With the training attended by many employees, it makes it easier for management to distribute the workload. With good workload distribution, in addition to achieving organizational performance, it can also minimize stress in employees due to the accumulation of workload.

## 2) Internal Solidity

In his mandate as the leader of the September 30, 2024 roll call, the Head of the Center conveyed the direction of the Head of the Indonesian Quarantine Agency to carry out the mandate of the quarantine function in accordance with the mandate of Law Number 21 of 2019 and continue to build strong synergy both internally and externally to strengthen the organization. The person in charge of the Hang Nadim Service Unit conveyed

"How can we manage it while there are still other friends who can replace their duties. So far we can anticipate. Therefore, it is important to understand each other among colleagues. In the Service Unit, friends must complement each other, strengthen each other. In Hang Nadim, to grow this, a sense of mutual trust must be built so that the sense of kinship that grows stronger, so that doing light things such as jogging together, going to cheap tourist attractions so that you can interact without limits so that from there you can grow to strengthen each other, grow kinship "

Other forms of activities are also carried out by other Service Units, such as cooking as carried out by the Kijang Service Unit and joint sports carried out by the Tanjung Uban Service Unit.

## 3) External Coordination

In carrying out the quarantine function, it cannot be done alone. This is as conveyed by the Person in Charge of the Hang Nadim Service Unit

"The form of supervision at Nongsa Point Port is by obtaining information from Law Enforcement Officers there if there is traffic of media carrying HPHK, HPIK, and OPTK"

This was confirmed by a statement from the Head of the Kijang Service Unit

"The solution to the lack of human resources so that organizational performance can be achieved by improving coordination with related agencies, especially for sharing information and exchanging data to support operational activities"

## 4) Monitoring and Evaluation

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The Head of the Animal, Fish and Plant Quarantine Agency of the Riau Islands conveyed the importance of monitoring and evaluation as follows

"...in making the program of the Head of the Indonesian Quarantine Agency a success, the key is continuous monitoring and evaluation, because no matter how large the number of human resources is, without maintenance management, in this case monitoring and evaluation, it will not run effectively and efficiently."

### 5) Determine the scale of priorities

Priority scales are very important, especially if there are two or more activities that must be carried out at the same time.

"Temporary solution to optimize personnel by combining work and priority scale in implementing according to the specified deadline"

### 6) Optimization of Existing Human Resources

The Animal, Fish, and Plant Quarantine Center has 132 human resources consisting of Structural Officials, Certain Functional Officials, General Functional Officials, and PPNPN (Non-Civil Servant Government Employees). Head of General Affairs of BKHIT Riau Islands conveyed

"The Indonesian Quarantine Agency's policy strategy is to maximize existing human resources, organize all work units, and improve the competence of individual human resources by conducting internships and in-house training according to their competence."

This is reinforced by the opinion of the Head of the Plant Quarantine Team

"There are multiple positions, so that work that should be done by more than 1 person but due to a shortage of employees, makes the existing human resources more effective"

Optimization of human resources is not only carried out for functional officials with civil servant status, but also for Non-Civil Servant Government Employees (PPNPN), as carried out by the Person in Charge of the Kijang BKHIT Riau Islands Service Unit

"Improving PPNPN skills both in the field and in the office to support and back up services and supervision."

Tanjung Balai Karimun Service Unit of BKHIT Riau Islands also carries out PPNPN empowerment

"Regarding the Tanjung Balai Karimun Service Unit, efforts are made related to empowering existing officers, assisted by PPNPN for supervision and service. Activities that can be carried out are by arranging the shift schedules of PPNPN friends, for example by helping to input applications or conducting supervision."

This effort was also carried out by the Natuna BKHIT Riau Islands Service Unit which only has 3 (three) PNS employees and 2 (two) PPNPN.

"We also try to divide and formulate existing personnel so that communication remains and supervision in the field can be maintained properly. We maximize the empowerment of existing human resources."

### 7) Digitalization of Services

The Indonesian Quarantine Agency has three main programs in 2024, which are called the 3 pillars, namely strengthening human resources, digitalizing services, and revitalizing laboratories. Through digitalizing services by launching an application called Best Trust (Barantin Electronic System for Transaction and Utility Service Technology), in addition to saving state expenditure of IDR 5.54 billion per year (Panggabean, 2024), this web-based system allows quarantine functional officials who are working on additional duties as procurement officers at the head office, to input quarantine inspection requests from service users, without having to go to the service post at the port where they work. This Best Trust system also has an impact on a high level of efficiency, because health certificates, both Animals, Fish, and Plants, can be printed paperless so that after the application is completed, the quarantine functional official can send a soft copy to the service user via WhatsApp or email after making an independent payment of the PNPB bill imposed in accordance with the provisions of the laws and regulations. Information technology systems have benefits for increasing efficiency and effectiveness in government agencies, one of which is increasing the speed of decision-making more

accurately and increasing the effectiveness, efficiency, and productivity of the organization (Jejen, 2021, Indrayani, 2017 in Mirza, et al., 2023). Prihandono and Amir (2024) added that by utilizing information technology, geographic location does not affect the effectiveness of communication and collaboration.

## **b. Stres**

### **1) Organizational Support**

Based on the results above, stress occurs in employees who do not receive support from the environment, such as SIMAK BMN operators. These employees are confused about sharing when there is a problem regarding the implementation of their duties.

"Psychologically, it's more stressful, because this additional task has no background at all, suddenly given this additional task that all must be learned by themselves. We ask and are confused, no one understands.

Organizational support can be done by implementing quality of work life. This is in line with research conducted by Nurlaila, et al. (2024) which states that quality of work life affects employee performance and employee performance will affect competitive advantage. Every time there is an increase in the quality of employee work, individual performance will increase. This quality of work will make employees healthier, have more commitment, feel safer and more comfortable, produce more goods, and reduce organizational costs.

### **2) Work Flexibility**

Limited human resources require a high level of flexibility from quarantine officers at the Animal, Fish, and Plant Quarantine Office of the Riau Islands. A concrete example in this case is related to the role of field officers and laboratory analysts. One of the provisions of ISO 17025:2017, laboratory analysts are not allowed to test samples obtained in the field, while in relation to existing limitations, laboratory analysts get a shift to work in the field as well. Therefore, one effort to overcome this problem is to conduct cross-testing, as conveyed by the Person in Charge of the Raja Haji Fisabilillah Service Unit.

"So far, we have been getting around this by cross-checking, meaning that by cross-checking, the person conducting the testing (laboratory analyst) is different from the person providing the service or taking the samples."

In addition, flexible working hours are implemented for the Belakang Padang and Sagulung service posts, which carry out certification activities at night.

"The level of flexibility that occurs is like that carried out by functional officials at the Sagulung and Belakang Padang ports, where certification activities are carried out at night, so their working hours start at 12.00-20.00, and above 20.00 is overtime."

Digitalization of services is one of the efforts to overcome stress caused by high workloads, for example if there are two or more activities happening at the same time. Quarantine officers can conduct remote checks to see the health symptoms of a carrier. This is as conveyed by the Head of the Natuna Service Unit.

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"Using video calls and GPS maps, so that application activities can be monitored, even with all the shortcomings, we try our best to carry out our duties, functions, and responsibilities to ensure that the products of animals, fish, and plants can be served well, without hindering the movement of these products."

### 3) Improve Communication

Communication between personnel is very important to maintain the spirit of togetherness and family so that supervision in the field can be maintained properly. This is as conveyed by the Head of the Natuna Service Unit

"We also try to divide and formulate the existing personnel so that they remain communicated and supervision in the field can be maintained properly, we maximize the empowerment of existing human resources"

### **c. Decrease in Productivity Quality**

One effort to overcome the decline in productivity is to overcome the factors that trigger the decline. The decline in productivity as experienced by the Kijang Service Unit, occurred because of activities that occurred simultaneously at the beginning of the month. This can be overcome by dividing the work and preparing a schedule of activities, as done by the Person in Charge of the Hang Nadim Service Unit.

"But how can we manage it while there are still other friends who can replace his duties. So far we can anticipate"

From the information from the resource person above, effective communication factors are very important in overcoming the decline in productivity. Sultan (2024) stated that effective communication has a significant impact on increasing employee productivity and fostering harmonious working relationships. In addition, the decline in productivity quality occurs because the limited number of human resources cannot be in two places at once, for example functional officials who are at one service post cannot be at another service post at the same time. This can be overcome by digitizing quarantine services, both the implementation of expenditure through the Best-Trust application and the process of examining carrier media which is carried out remotely via video call. This method is carried out by functional officials at the Natuna Service Unit who must carry out their duties at all service posts in Natuna Regency.

"One of the innovations is when there is supervision to improve communication, coordination and cooperation with related agencies. For example, at Selat Lampa Port, the trip to the main office is approximately 1.5 hours, and when a ship enters, communicate with colleagues at the Sea Transportation and the Integrated Marine and Fisheries Center (SKPT) if there is an activity of unloading fishery products. In addition, using video calls and GPS maps, so that application activities can be monitored"

### **d. Over Time**

With a high workload, excess working hours are common. Compensation provided by the state in the form of overtime pay and endurance. The Head of the Hang Nadim Service Unit gave his statement regarding this matter

"Technically, the workload is already very high. How to carry out certification services during normal hours must also carry out supervision, for example at Hang Nadim Airport which supervises aircraft arrivals outside of working hours. That's why I hope that the office must provide maximum endurance."

In addition, adjustments to working hours occurred for Fish Quarantine functional officials who carried out the certification process in Belakang Padang and Sagulung. This was conveyed by the Head of the Fish Quarantine Working Team

"The level of flexibility that occurs is like that carried out by functional officials at the Sagulung and Belakang Padang ports, where certification activities are carried out at night, so their working hours start at 12.00-20.00, and above 20.00 is overtime."

## CONCLUSION

This study was conducted to examine the Impact of Lack of Human Resources on the Effectiveness of Organizational Performance at the Animal, Fish and Plant Quarantine Office of the Riau Islands in an effort to determine the policies implemented by the Head of the Office and the strategies derived from the Indonesian Quarantine Agency so that organizational performance runs effectively amidst the lack of human resources. The conclusions obtained from the research conducted are: 1. Impact of Human Resource Shortage. Based on the research conducted, there are several impacts caused by the lack of human resources at the Animal, Fish and Plant Quarantine Center of the Riau Islands, namely: a. high workload. b. the emergence of stress. c. decreasing performance productivity, d. occurrence of excess working hours (overtime). 2. Efforts to Overcome Human Resource Shortages, The lack of human resources that occurred at the Animal, Fish, and Plant Quarantine Center of the Riau Islands had several impacts, but to achieve effective organizational performance, several efforts were made, including: a. Against high workload: improving the quality of human resources, internal solidity, external coordination, Monitoring and Evaluation, determining priority scales and optimizing existing human resources. b. Against the emergence of stress: organizational support, work flexibility, improving communication. c. On performance productivity: division of labor, preparation of activity schedules, effective communication, and digitalization of services. d. Regarding excess working hours (over-time): providing overtime pay, physical endurance, growing employee engagement.

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