



Improving Government and Community Synergy in Rabies Control and Overcoming in Tomohon City: Study at the Health and Agriculture Department

Nina Elisabet Lelet¹, Femmy M. G. Tulusan¹, Grace J. Waleleng¹

¹Postgraduate Program, Sam Ratulangi University, Indonesia

*Corresponding Author: Nina Elisabet Lelet

Email: elisabetnina01@gmail.com



Article Info

Article history:

Received 12 December 2023

Received in revised form 5

January 2024

Accepted 13 January 2024

Keywords:

Synergy

Government

Public

Rabies Control

Abstract

Rabies, known as mad dog disease, is an acute infectious disease that can attack humans. To date, many people have been affected by rabies, including those in Tomohon City. This research was conducted to analyze the synergy between the government and the community in controlling rabies in Tomohon City. The research design used is qualitative. Research findings show that Tomohon City is one of the cities in Indonesia that is not yet free from rabies. The policies set by the Tomohon City Government have not been able to suppress rabies cases. Weak communication and coordination from related agencies and lack of community support are the main causes. The strategy that needs to be implemented is related to problem solving, the role of government and communication networks. Therefore, it is necessary to strengthen border area control over the traffic of animals that transmit rabies, carry out direct outreach and education to the public about the prevention, control and management of rabies, impose sanctions on market traders who still sell meat from animals that transmit rabies without health documents and increase cooperation and coordination between the Subdistrict Government, Subdistrict Government, and related Government Agencies as well as with the Community.

Introduction

The state guarantees the right of every citizen to realize a good, healthy and prosperous life physically and mentally as stated in Law Number 17 of 2021 concerning Health (Itasari, 2021). In line with realizing national ideals and goals, namely protecting the entire Indonesian nation and all of Indonesia's blood as mandated in the preamble to the 1945 Constitution of the Republic of Indonesia, paragraph 4.

Indonesia is one of the developing countries in the world that is still fighting against rabies. The death rate due to rabies in Indonesia is still quite high (Prasanjaya et al., 2020). Namely 100-156 deaths per year with a Case Fatality Rate of almost 100%. This illustrates that rabies is still a threat to public health. Globally, rabies kills 1 person every 10 minutes and more than 70,000 people die every year. It is recorded that almost 40% of cases of animal bites that transmit rabies occur in children and 98% of rabies is transmitted through dog bites. Only 2% of these diseases are transmitted by cats and monkeys. Rabies is 99% fatal once symptoms appear (Source: Indonesian Ministry of Health). Dogs are the main animal transmitting rabies (HPR) in Indonesia, following cats and monkeys with a low percentage. Rabbits, squirrels, mice and other types of rodents are rarely infected (Prasanjaya et al., 2020).

Rabies, known as Lyssahydrophobia (lyssa), rage, tollwut, hydrophobia, wut or better known as mad dog disease, is an acute infectious disease of the central nervous system that can attack all warm-blooded animals and humans (Slathia et al., 2023). Mad dog disease is an infectious

viral disease that is very virulent in mammals, especially dogs, cats and monkeys and is zoonotic. Zoonoses or zoonotic diseases are diseases that can be transmitted from animals to humans or vice versa. Zoonoses are caused by parasitic microorganisms which can be bacteria, viruses, fungi, and parasites such as protozoa and worms. Transmission can be done in three ways, namely direct, indirect and by consuming.

The number of rabies cases in Indonesia from January to April 2023. In April 2023 there were 31,113 cases of rabies, 23,211 cases of bites from animals that had received anti-rabies vaccines, and 11 cases of deaths caused by rabies. Bali is in first place with 14,827 rabies cases. In second place is East Nusa Tenggara (NTT) which received 3,437 rabies case reports. Meanwhile, third is South Sulawesi with a total of 2,338 rabies cases. Next in fourth position, there is West Kalimantan with 1,188 cases and followed by fifth, West Sumatra with 1,171 cases. North Sulawesi with 1,104 cases, Riau 1,019 cases, NTB 739 cases, Central Sulawesi 588 cases, and East Kalimantan 562 cases. (Source: Indonesian Ministry of Health).

In 2022, there were 12 positive cases of rabies in animals and as of July 2023 there were 8 positive cases of rabies, and the number of cases of animal bites transmitting rabies from January to September amounted to 369 people, so that the city of Tomohon became one of the cities in Indonesia who are not yet free from rabies. (Source: Tomohon City Agriculture and Fisheries Service). Rabies is a big challenge in Indonesia because in the last three years the average number of cases of rabid animal bites was more than 80,000 cases a year and the average death was 68 people. (Source: Indonesian Ministry of Health). This shows that efforts to control rabies in Indonesia require structured, systematic strategic steps and synergy from all related parties. An area or country can be declared free of rabies if there are truly no cases in an area or there must be zero cases. Zero cases of rabies can be achieved through controlling the stray dog population by suppressing and stopping their reproduction, vaccinating 70% of the total dog population to create herd immunity, so that no more cases of rabies arise.

To protect the public from the risk of contracting rabies through rabid-transmitting animals, the control and management of it is regulated in Tomohon City Regional Regulation Number 1 of 2017 concerning Control and Management of Rabies as an effort to reduce and overcome Rabies, which is carried out through monitoring, diagnosis, prevention, security and eradication in order to reduce the risk of rabies transmission to humans.

As a strategic step for the Tomohon City Government's goal to free the area from the threat of rabies and towards a rabies-free Tomohon City, the government prohibits the trade in Animals that Transmit Rabies (HPR), including dogs, cats, and all their derivative products that do not have an animal health certificate. the Beliman market area of Tomohon City refers to the Mayor's instructions Number 108/WKT/VI 2023 concerning Increasing Supervision, Control and Countermeasures against the Distribution and Trade of Animals that Transmit Rabies in Tomohon City. The routine program once a year is carried out by the Tomohon City regional government through the agriculture department in the livestock sector to inject the rabies vaccine.

In breaking the chain of rabies transmission in Tomohon City, cross-sectoral involvement and synergy is needed, starting from the government, including the health service, the agricultural service for animal husbandry and animal health, as well as the community to create a society that is healthy, safe and free from rabies. Synergy is building and ensuring productive cooperative relationships and harmonious partnerships with stakeholders, to produce useful and quality work. Synergy can be interpreted as joint or cooperative activities carried out to obtain maximum results by connecting several different but related roles. Therefore, all components of society and the government are expected to work together to achieve a healthy

and prosperous society physically and mentally. However, some residents of Tomohon City lack synergy towards controlling rabies in Tomohon City. In the midst of the rabies epidemic which is still a threat, people still have the desire to keep HPR (dogs and cats) apart from being a hobby, because they like it or love to keep them as pets. However, many HPRs are not cared for properly and are inadequate, HPRs are allowed to roam freely, have not been vaccinated, and even the breeding of these HPRs is out of control. In general, the people of Tomohon City have long kept HPR (dogs) as pets. Some people also often make HPR (dog) meat as food. They think that dog meat has the property of treating itching, healing wounds and increasing stamina. Although so far there have been no clinical trials that confirm this assumption. The ban on the dog meat trade in the Tomohon market has reaped various pros and cons in the community. The ban on dog trading is considered to be against community traditions and culture. Synergy is a collaboration that can be realized when we can synchronize various alternative desires by means of good communication between team members. In synergy, it is important to coordinate with each other to create efficient activities. If the community does not work together to prevent and control rabies, the government's aspirations and hopes for a rabies-free area will not be realized.

The key to successful synergy can be seen from 3 (three) fundamental aspects according to Gao et al. (2022), namely: 1) Problem Solving, 2) The Role of Government, 3) Communication Networks. Problem solving is a planned and systematic effort or process to solve a problem by finding the correct sequence of alternative answers, namely by defining the problem, determining the main cause of a problem, looking for a solution and alternatives for resolving the problem and applying them to obtain a solution. to existing problems. In this case, Tomohon City is one of the cities in Indonesia that is not yet free from rabies. To prevent the transmission of rabies, several monitoring, diagnosis, prevention, security and eradication efforts are carried out in order to reduce the risk of rabies transmission to humans.

The role of the government is an important part of managing the survival of society and the state. As our country is a legal state where all activities and movements of every person are regulated by law, including the control and prevention of rabies which is contained in the Tomohon City Regional Regulation Number 1 of 2017. However, in reality, the implementation of sanctions has not been strictly implemented by the government, especially for market traders. who still sell meat from animals that transmit rabies even though it has been banned.

A communication network is a connection or relationship between several individuals, groups, organizations and communities to exchange information. In this case communication between government and society. In public services, clear communication must be considered. So that with clear communication, the public can certainly understand and know the rules that exist in the service patterns carried out by the government. Through good communication, it will be easier for people to express what they hope for through their complaints and the government will more easily identify problems that arise and quickly resolve them. In general, the people of Tomohon City have been keeping animals that transmit rabies (dogs) for a long time and are often used as food even though most of the dogs do not have health certificates. The lack of socialization in the community means that the people of Tomohon City are less aware of the impact of keeping and trading animals that transmit rabies.

Methods

The type of approach used in this research is research that uses a qualitative approach and collects data descriptively. The rationale for using this research method is because researchers want to get a picture of the facts that are happening in the field, namely a direct and accurate

picture of the Synergy of Government and Society in Controlling and Overcoming Rabies through analysis using a scientific approach according to the actual situation. Researchers use a descriptive approach where observations and interviews are considered appropriate to answer the problem to be researched. The research places chosen to get solutions to research problems were the Tomohon City Health Service and the Tomohon City Agriculture Service which were considered appropriate for getting answers to problems. The research period will take place throughout November 2023.

To obtain and collect data, the researcher will carry out research directly at the research location using the triangulation method which is a combination of several methods for collecting data to answer problems, namely researchers using interviews, observation and documentation. The informants in this research were from the Tomohon City Health Service, the Tomohon City Agriculture Service for Animal Husbandry, PD Pasar (1 person) and the community (5 people). The theoretical basis that will be used to solve this research problem is using the theory of Rhodes (2007) which puts forward the concept of the key to successful synergy, which is seen from 3 (three) fundamental aspects, namely problem solving, the role of government and communication networks. The data collected has been analyzed using qualitative analysis techniques through the stages of reduction, interpretation and drawing conclusions.

Results and Discussion

Synergy is a collaboration that can be realized when we can synchronize various alternative desires by means of good communication between team members. In synergy, we must also coordinate with each other so that efficient activities can be realized (Benos et al., 2023). Siregar (2021) Stated that synergy is needed between society and the government to have the will to carry out their duties and obligations with full responsibility. The key to successful synergy can be seen from 3 (three) fundamental aspects according to Haenilah et al. (2021), namely: Problem Solving, the role of Government (intergovernmental games) and Communication networks (Networking). Rabies, known as Lyssahydrophobia (lyssa), rage, tollwut, hydrophobia, wut or better known as mad dog disease, is an acute infectious disease of the central nervous system that can attack all warm-blooded animals and humans. Mad dog disease is an infectious viral disease that is very virulent in mammals, especially dogs, cats and monkeys and is zoonotic. Therefore, this disease is one of the strategic diseases in Indonesia which must receive priority in its control and eradication (Utami et al., 2020).

Rabies vaccination is one way to control the spread of rabies. Apart from vaccination, a strategic effort in controlling rabies is controlling the rabies population by sterilizing HPR. Furthermore, another important factor in controlling rabies is increasing public knowledge and awareness of the disease and dangers of rabies, especially people who keep HPRs, who must know the procedures for maintaining good animals by not releasing HPRs into the wild and carrying out routine rabies vaccinations. If cases of HPR bites are found, the public is advised to report them to the livestock service and/or community health center.

Nuvey et al. (2023) stated that the Department of Agriculture and Livestock is still not optimal in carrying out routine vaccinations and does not comply with Standard Operating Procedures and there is a lack of Transparency from the Community (Disposition). Prihartini et al (2023) explained that there are factors related to measures to prevent rabies, namely knowledge, attitudes, the role of health workers and the role of animal health workers, and measures to prevent rabies. That there is a significant relationship between knowledge, attitudes, the role of health workers and the role of animal health workers with measures to prevent rabies. Spargo et al (2021) stated that the success of eradicating rabies depends on the level of understanding

about rabies and public awareness and that there is a relationship between the characteristics of dog owners and efforts to prevent rabies.

Tomohon City is a city in the province of North Sulawesi, Indonesia, which is an enclave of Minahasa Regency. Before 2003, controlling rabies was one of the responsibilities of the Health Service through the Animal Husbandry and Animal Health Sector. The theoretical basis that will be used to solve this research problem is using the theory of Liu et al. (2021) which puts forward the concept of the key to successful synergy which is seen from 3 (three) fundamental aspects according to namely:

Problem Solving, namely the ability to solve problems, which includes trying to find the correct sequence of alternative answers, thereby moving us closer to our goals, as well as a process that can help someone find what they want and how to achieve it in the most effective way. by formulating problems, developing action plans, and carrying out actions that lead to solving the problem. The role of the Government is that of integrating constructive interactions between the government, the private sector and society. A communication network is a series of individuals as a result of the exchange of information, thereby forming certain patterns or models of communication networks.

Solution to Problem

Problem solving is a planned and systematic effort or process to solve a problem by finding the correct sequence of alternative answers, namely by defining the problem, determining the main cause of a problem, looking for a solution and alternatives for resolving the problem and applying them to obtain a solution. to existing problems. Problem solving is a thought that is directed directly to determining a solution or way out for a specific problem.

Tomohon City is one of the cities in Indonesia that is not yet free from rabies. Rabies is an acute infectious animal disease that attacks the central nervous system of all types of warm-blooded animals, and can be transmitted to humans which can be fatal if proper treatment is not received after being attacked by the rabies virus. Control of rabies is generally carried out by vaccinating and eliminating stray dogs, in addition to socialization programs and monitoring the movement of animals that transmit rabies (HPR). However, eradicating rabies does not only depend on dog problems, but also concerns human problems. Basically, the success of controlling and eradicating rabies depends on the level of public understanding about rabies. There needs to be a change in behavior so that people can accept and comply with various obligations according to applicable regulations. The obligations in question include impounding or tying up the dog you own, caring for and maintaining its health, and carrying out routine vaccinations (Liu et al., 2021).

In 2022, there were 12 positive cases of rabies in animals and as of July 2023 there were 8 positive cases of rabies, and the number of bites from rabies-infecting animals from January to September was 369 people. Many people in Tomohon City keep animals that transmit rabies, which can transmit the rabies virus to humans. Currently, the dog and cat population is approximately 13,000, with 5,000 having been vaccinated and 8,000 still not being vaccinated. It is said that quite a lot have not been vaccinated. In the Mayor's instruction Number 108 of 2023, trade in Animals that Transmit Rabies (HPR) including dogs and cats at the Tomohon Beliman Market must fulfill requirements including a recommendation document for issuing HPR from the regional veterinary authority of origin and the veterinary authority of the destination region, animal health certificates and vaccination certificates from the area of origin which is carried out within a period of 30 days to 6 months of departure to Tomohon. However, based on the research results, it was found that more than 95% of the animals that transmit rabies, including dogs and cats, which are bought and sold in the Tomohon faith market come

from North Sulawesi, namely from Gorontalo, Central Sulawesi, South Sulawesi, Southeast Sulawesi, which in fact these areas are rabies areas. The animals were brought in without health documents so their health status was unclear. The imported HPR always pass inspection at the border because only the transport vehicle documents are checked, not the animal's health. If this continues to be done, the rabies cases will not be resolved and the dream of freeing the area from the threat of rabies and leading to a rabies-free Tomohon City will not be realized.

The efforts to prevent rabies cases that can be done are by imprisoning/tying animals that transmit rabies, if the animal needs to leave the house it needs to be equipped with safety equipment, vaccinate animals that transmit rabies every year, if it has been bitten immediately wash the wound and treat the GHPR wound, and for groups at risk (laboratory workers/vaccinators/doctors/nurses/veterinarians/animal nurses/everyone who has the potential to have direct contact with infectious animals/rabies patients) can be given immunity against the virus and don't forget to use personal protective equipment when handling rabies cases, and the government needs to strengthen monitoring of cellphone traffic and create land cross-border quarantine control posts to monitor the delivery of cellphones to the North Sulawesi region. If supply decreases, selling prices will increase and consumers will be able to switch to other protein sources. Role of Government

The government is the part of government that has an important role in regulating the survival of society and the state. As our country is a country of law where all activities and movements of every person are regulated by law, including the control and prevention of rabies. Law Number 17 of 2021 concerning Health means that the State guarantees the right of every citizen to realize a good, healthy and prosperous life physically and mentally. The Health Law is a regulation that regulates various aspects of the health system in Indonesia. This law covers things such as promotive, preventive, curative and rehabilitative efforts. The aim is to improve the quality of health services, protect the community, and regulate the authority and responsibilities of health workers.

Health is a basic need of every individual in society that must be met by every nation and country. This includes the state's obligation to protect its people from contracting diseases that are considered dangerous. The state as the largest organization is expected to be able to provide maximum services for disease control because the state has authority that covers the entire life of society. There is no other organization whose authority can cover all levels of society except the state. Apart from that, the state is an organization which in a certain territory can legally impose its power on all other power groups and which can determine the goals of collective life through policies that are made and agreed upon. For this reason, it is appropriate for the state to provide health insurance to its people. This includes dealing with dangerous diseases where the state is deemed to need to intervene to overcome the disease problem.

The Tomohon City regional government has issued Tomohon City Regional Regulation Number 1 of 2017 concerning Rabies Control. This regional regulation aims to protect the public from the risk of the spread of rabies as well as in the context of preventing, controlling and overcoming rabies. This regional regulation also has the benefit of protecting the public from the risk of contracting rabies in Tomohon City, and regulates the maintenance and supervision of the movement of animals that transmit rabies as well as preventing and controlling rabies. This regional regulation also has great benefits for the community in maintaining a healthy life due to pets, where most of the people of Tomohon City keep animals that transmit rabies. Mayor's Instruction Number 108/WKT/VI 2023 concerning Increasing Supervision, Control and Mitigation of the Distribution and Trade of Rabies-Infectious Animals in Tomohon City. prohibits the trade in Animals that Transmit Rabies (HPR), so dogs,

cats and all their derivative products that do not have an animal health certificate are prohibited from being bought and sold in the Beliman market area of Tomohon City. However, in reality, the government has not strictly implemented sanctions, especially against market traders who still sell meat from rabies-infecting animals without health documents even though it is prohibited.

Communication Network

A communication network is a connection or relationship between several individuals, groups, organizations and communities to exchange information. In this case communication between government and society. In public services, clear communication must be considered. So that with clear communication, the public can certainly understand and know the rules that exist in the service patterns carried out by the government. Through good communication, it will be easier for people to express what they hope for through their complaints and the government will more easily identify problems that arise and quickly resolve them.

There is still a lack of communication and coordination between the Tomohon City Regional Agriculture and Fisheries Service and the Tomohon City Regional Health Service. Synergy between the two departments needs to be improved, such as data sharing, handling cellphones, cellphone vaccinations and even specimen examination. Communication and coordination between the Tomohon City Regional Agriculture and Fisheries Service and the Tomohon City Regional Market Company are also still considered weak, with there being a lack of supervision over the trade of HPR and/or HPR products for consumption purposes within the Tomohon City faith market area. Based on research data, more than 90% of animals are imported from outside without health documents.

Communication between the Regional Agriculture and Fisheries Service and sub-district and village heads can be said to be quite good, where the implementation of HPR vaccination in sub-districts and sub-districts is carried out by the Regional Agriculture and Fisheries Service accompanied by the sub-district and sub-district governments. The sub-district has been given the authority and responsibility in terms of registering animal ownership, including animals that transmit rabies, as well as questions and complaints as well as providing information regarding the prevention and control of rabies, although general complaints remain under the authority of the Department of Agriculture and Fisheries, but to make it easier for the public to submit complaints, they can be submitted to the local government while continuing to coordinate with the Department of Agriculture and Fisheries. Communication between the government and the community regarding rabies control can be said to be lacking, where socialization and education about the dangers of rabies is still rarely carried out. Not everyone who is bitten takes their dog to be examined. Some were immediately beaten to death and then buried.

The expected community participation is proactive in maintaining and improving health, preventing the risk of disease, protecting oneself from the threat of disease, and actively participating in the public health movement (Otto et al., 2021). Community participation is a form of community healthy behavior itself, where healthy behavior is proactive community behavior to maintain and improve their health, prevent the risk of disease, protect themselves from disease and play an active role in community health activities or movements (Henry et al., 2020). Community participation in preventing the transmission of rabies is characterized by vaccinating the dogs they keep, registering the dogs with 4 officers, tying or chaining the dogs so they do not roam freely and muzzling the dogs' muzzles when they are taken out or released. The awareness of HPR owners to participate is crucial in breaking the chain of rabies transmission from HPR to humans. Low participation of people who own HPR will hinder

breaking the chain of rabies transmission so that rabies will remain and continue to cause death, on the other hand, high participation of HPR owners really supports the eradication of rabies (Ministry of Health R1, 2017)

In the midst of the rabies epidemic which is still a threat, people still have the desire to keep HPR (dogs and cats) as pets. However, many of the HPR that are kept are not cared for properly and inadequately, the HPR are allowed to roam freely, have not been vaccinated, and even the breeding of HPR is out of control. So it requires an active role from the community to synergize with the government in efforts to prevent rabies because the success of the rabies control and eradication program depends on the level of awareness of the community, especially dog owners, to participate in preventing rabies.

Obstacle Factor

Inhibiting factors are factors that interfere with activities and have a negative impact. Budget adequacy is a measure of the success of implementing government programs. The operational budget/funds for the rabies control program by the Tomohon City Agriculture and Fisheries Service come from the Tomohon City APBD (Regional Revenue and Expenditure Budget). The heavy task that must be carried out by the Tomohon City Agriculture and Fisheries Service in charge of Animal Health has not been balanced with adequate budget allocation. The amount of rabies vaccine available for humans is said to be safe, stock available until December for North Sulawesi. Meanwhile, vaccine stocks for animals are still lacking. Ideally, HPR vaccination is carried out every 6 (six) months, but stock of vaccinations for animals is relatively low due to budget shortages, so that more than half of the population of rabies-infecting animals has not been vaccinated.

Supporting Factors

In implementing a policy or any activity there are obstacles and supports. Supporting factors are areas that have positive effects and impacts on the implementation of activities. In breaking the chain of rabies transmission in Tomohon City, the supporting factor is related to handling cases of rabies bites, the Tomohon City Regional Health Service provides Anti-Rabies Vaccine (VAR) and Anti-Rabies Serum (SAR) in large quantities sourced from the Revenue and Expenditure Budget Regional (APBD). In dealing with rabies in Tomohon City, there is support from the Animal Lovers Community, namely AFI (Animal Friends Indonesia), which continues to vaccinate animals that transmit rabies, including dogs and cats.

Conclusion

Based on the results of research conducted on Government and Community Synergy in Controlling Rabies in Tomohon City, it can be concluded that Tomohon City is one of the cities in Indonesia that is not yet free from rabies. Many people in Tomohon City keep animals that transmit rabies which have the potential to transmit the rabies virus to humans. More than half of the population of rabies-infecting animals in Tomohon City has not been vaccinated. Animals that transmit rabies sold at the Tomohon faith market are imported without health documents so their health status is unclear. Weak border supervision means that imported HPR always escape inspection.

The Tomohon City regional government has issued Tomohon City Regional Regulation Number 1 of 2017 concerning Rabies Control. As well as Mayor's Instruction Number 108/WKT/VI 2023 concerning Increasing Supervision, Control and Countermeasures against the Distribution and Trade of Animals that Transmit Rabies in Tomohon City. However, in reality, the government has not strictly implemented sanctions, especially against market traders who still sell meat from rabies-infecting animals without health documents even though

it is prohibited. Weak communication and coordination between governments starting from the Agriculture and Fisheries Service, Health Service, PD Pasar which has the authority to control and deal with rabies as well as between the government and the community. As well as the lack of awareness and community participation in controlling rabies in Tomohon City. The inhibiting factors in controlling rabies in Tomohon City are the limited budget for HPR vaccination as well as awareness and responsibility from the government and community. And supporting factors are the availability of VAR and SAR for humans, as well as support from the animal lover community in facilitating HPR vaccination.

Based on the conclusions obtained from the research results and discussion of Government and Community Synergy in Rabies Control in Tomohon City, the author puts forward several suggestions so that rabies control can run better in the future. These suggestions include strengthening border areas for monitoring the traffic of Rabies-Infected Animals both at air, sea and land borders. Carrying out direct outreach and education to the public regarding the prevention, control and management of rabies. Impose sanctions on market traders who still sell meat from rabies-infected animals without health documents. Increase cooperation and coordination between the District Government, Subdistricts, and related Government Agencies as well as with the Community.

References

- Benos, L., Moysiadis, V., Kateris, D., Tagarakis, A. C., Busato, P., Pearson, S., & Bochtis, D. (2023). Human–robot interaction in agriculture: a systematic review. *Sensors*, *23*(15), 6776.
- Gao, Z., Ma, Z., Lan, D., Zhao, Z., Zhang, L., Wu, H., & Hou, Y. (2022). Synergistic polarization loss of MoS₂-based multiphase solid solution for electromagnetic wave absorption. *Advanced Functional Materials*, *32*(18), 2112294.
- Haenilah, E. Y., Yanzi, H., & Drupadi, R. (2021). The Effect of the Scientific Approach-Based Learning on Problem Solving Skills in Early Childhood: Preliminary Study. *International Journal of Instruction*, *14*(2), 289-304.
- Henry Akintobi, T., Jacobs, T., Sabbs, D., Holden, K., Braithwaite, R., Johnson, L. N., ... & Hoffman, L. (2020). Community engagement of African Americans in the era of COVID-19: considerations, challenges, implications, and recommendations for public health. *Preventing chronic disease*, *17*, E83.
- Itasari, E. R. (2021). PROTECTING CITIZENS IN BORDER TERRITORY BASED ON HUMAN RIGHTS. *Jurnal Pendidikan Kewarganegaraan Undiksha*, *9*(1), 27-32.
- Liu, B. W., Zhao, H. B., Chen, L., Chen, L., Wang, X. L., & Wang, Y. Z. (2021). Eco-friendly synergistic cross-linking flame-retardant strategy with smoke and melt-dripping suppression for condensation polymers. *Composites Part B: Engineering*, *211*, 108664.
- Nuvey, F. S., Fink, G., Hattendorf, J., Mensah, G. I., Addo, K. K., Bonfoh, B., & Zinsstag, J. (2023). Access to vaccination services for priority ruminant livestock diseases in Ghana: Barriers and determinants of service utilization by farmers. *Preventive Veterinary Medicine*, *215*, 105919.
- Otto, M. C., Van Ruysseveldt, J., Hoefsmid, N., & Van Dam, K. (2021). Examining the mediating role of resources in the temporal relationship between proactive burnout prevention and burnout. *BMC Public Health*, *21*(1), 1-15.

- Prasanjaya, P. N. K., Tosepu, R., & Rizqiyah, N. (2020, March). The influence of public awareness on prevention of rabies cases in several asian countries: a review. In *IOP Conference Series: Earth and Environmental Science* (Vol. 465, No. 1, p. 012007). IOP Publishing.
- Prasanjaya, P. N. K., Tosepu, R., & Rizqiyah, N. (2020, March). The influence of public awareness on prevention of rabies cases in several asian countries: a review. In *IOP Conference Series: Earth and Environmental Science* (Vol. 465, No. 1, p. 012007). IOP Publishing.
- Prihartini, Y., Syamruth, Y. K., & Hinga, I. A. T. (2023). Factors Related to Rabies Prevention Measures in Nangapanda Community Health Center, Ende, East Nusa Tenggara. *Journal of Health Promotion and Behavior*, 8(2), 78-84.
- Siregar, I. (2021). CSR-based corporate environmental policy implementation. *British Journal of Environmental Studies*, 1(1), 51-57.
- Slathia, P., Abrol, R., Sharma, S., & Sharma, S. (2023). Rabies: A review on clinical signs, prevention and control.
- Spargo, R. M., Coetzer, A., Makuvadze, F. T., Chikerema, S. M., Chiwerere, V., Bhara, E., & Nel, L. H. (2021). Knowledge, attitudes and practices towards rabies: A survey of the general population residing in the Harare Metropolitan Province of Zimbabwe. *Plos one*, 16(1), e0246103.
- Utami, N. W. F., Wirawan, I. G. P., Firm, J., Kepakistan, A. N. K., Kusdyana, I. P. G. A., Nicol, S., & Carwardine, J. (2020). Prioritizing management strategies to achieve multiple outcomes in a globally significant Indonesian protected area. *Conservation Science and Practice*, 2(6), e157.