

**An Analysis of Communication System and Stakeholder Mapping in  
Supporting the National Shrimp Pond Production Acceleration Program  
2024**

**Flora Meliana Siahaan**  
[flora.fmn@bsi.ac.id](mailto:flora.fmn@bsi.ac.id)  
**Universitas Bina Sarana Informatika**

**Katry Anggraini**  
[icha.driwes@gmail.com](mailto:icha.driwes@gmail.com)  
**Universitas Pamulang**

**Amalliah**  
[amalliah.all@bsi.ac.id](mailto:amalliah.all@bsi.ac.id)  
**Universitas Bina Sarana Informatika**

**ABSTRACT**

This research was conducted from observation (observation) and literature. The author collects various information from national and international journals, news in the media, articles, e-books, modules, diktats, and other research results related to the topic of discussion, namely the communication system and stakeholder mapping (stakeholders), then analyses in depth to be able to answer the formulation of the problem raised in this paper. Support or involvement of stakeholders in accelerating the 2024 national shrimp production program is needed, there is no stakeholder support, so the acceleration of achieving production targets will not be implemented. The stakeholders and actors detected to have a role in this program are central and regional governments, the Ministry of Marine Affairs and Fisheries, banks or investors, private companies, non-governmental organizations (NGOs), farmers, and surrounding communities.

**Key Words:** Stakeholder; Revitalization; Shrimp Farming Ponds

**INTRODUCTION**

The huge potential of Indonesia's aquatic resources makes the fisheries sector one of the priority aspects for Indonesia's National Development. In addition to consumption, this industry is also a highly calculated export commodity, both capture fisheries and aquaculture fisheries. In 2020, Asian countries dominated fisheries production, producing 70 percent of world production. Indonesia ranks second after China (FAO, 2020). Shrimp commodities are one of the most popular fishery commodities and have a high selling value in the domestic and international markets. This shrimp production always increases from year to year. On the production side, shrimp originating from pond cultivation, which is most widely produced nationally, is shrimp type. The total production of vaname shrimp is 476,455 tons, or 71% of total shrimp production (PDS, 2019). The contribution of shrimp export value to the value of Indonesian fisheries exports on average reached

36.27%; national shrimp aquaculture production increased rapidly in the last five years, with production of 638,955 tons (2013) to 920,051 tons (2017) with an average annual increase of 10.38%. In 2018, there was a shrimp export volume of 197.43 thousand tons with a value of USD 1,742.12 million (BPBAP Situbondo, 2021), in the 2019 period, the achievement of shrimp production was 517,397 tons and is targeted to increase by 2024 (KKP, 2020).

To continue to support development through shrimp farming, the government, through the Coordinating Minister for Maritime Affairs and Investment, supports the acceleration of increasing shrimp farming productivity through the Decree of the Coordinating Minister for Maritime Affairs and Investment of the Republic of Indonesia Number 130 of 2021 concerning the Priority Program of the Coordinating Ministry for Maritime Affairs and Investment, one of which is the Acceleration of Shrimp Pond Production (Coordinating Ministry for Marves, 2021). This program targets an increase in shrimp production by two million tons or an increase of 250 percent until 2024, equivalent to Rp. Ninety trillion (KKP, 2020). Furthermore, to realize the acceleration program, the Ministry of Marine Affairs and Fisheries (MMAF) carried out several strategies, including strengthening collaborative communication with fisheries stakeholders and strengthening aquaculture through shrimp pond revitalization by launching four Major RPJMN 2020-2024 Projects, namely 1) Shrimp Pond Cluster Model; 2) Millennial Shrimp Farm (MSF) Model; 3) Pond Facility Assistance; 4) Domestic & Foreign Private Investment (KKP, 2020)

This program is also directed to support and integrate the global agenda of achieving the SDGs (Sustainable et al.) into developing national aquaculture fisheries. Sustainable development in aquaculture is carried out through 1) improving the welfare of fish farming business actors to alleviate poverty in various regions (SDGs goal No. 1 End Poverty); 2) increasing the production of aquaculture fish products to realize national food security (SDGs goal 2 Zero Hunger); 3) increasing the competitiveness of aquaculture products to improve the welfare of fish farmers and job creation (SDGs 8 Decent Work and Economic Growth goals); 4) ensuring the availability of fish supply through increasing environmentally friendly and sustainable fish production (SDGs goal 12 Responsible Consumption and Production), and 5) sustainable management of aquaculture resources (SDGs goal 14 Live DJPB 2020-2024). In order to achieve the objectives of a program, stakeholders are needed. The involvement of stakeholders in a project will affect the success of the project because of collaboration. To maximize program results, it is necessary to do stakeholder mapping so that the role of each stakeholder is right on target. Stakeholder collaboration is a form of cooperation and social interaction where stakeholders have a role in policymaking and act as actors to encourage the community to make changes to achieve predetermined goals (Patminingtyas, 2020). In addition, this program can open employment opportunities for the community, so collaboration is needed for all stakeholders to synergize, such as the government, banks, MSMEs, investment companies, CSR companies, and academics take part in this program,

and no less important is to provide training that makes the community more professional and have good management in managing their ponds.

## **LITERATURE REVIEW**

### **Analysis System**

The term "system" comes from the Greek "system," i.e., unity of parts or components in regular contact. The system has four points of thought: unity, part, relating, and orderly. Churchman (1968) and Awad (1969) in Mardikanto (2009) define a system as a set of elements that have functions and move in dependence to achieve common goals as well as their respective goals. Tjitropranoto (1990) means that a system is an interdependent unit, interconnected (both formal and informal), the complementarity of activities and results of activities, helping each other within the limits of their respective capabilities and towards a coordinated, integrated, and synchronized level.

Here are some things related to the system proposed by Pace and Faules (2010): a. Noncommutativity. Shows that a system is not just the sum of its parts. When these components are interconnected with each other in an interdependence, the system acquires a separate identity from each component. b. The elements of structure, function, and evolution. Structure refers to the relationships between the components of a system. The superior-subordinate relationship, for example, can be distinguished by status, an element of the structure. The structure reflects regularity. c. Openness. Organization is a social system. Its boundaries are penetrable, which allows the organization to interact with its environment, thereby obtaining energy and information. d. Hierarchy. A system may be a subsystem for other systems within it and a subsystem for a larger system—the flow of information that crosses the boundaries.

Systems analysis is the system development phase that determines what information systems should do to solve existing problems by studying systems and work processes to identify strengths, weaknesses, and opportunities for improvement (Stair & Reynolds, 2010). According to Laudon and Laudon (2010), system analysis consists of identifying problems, determining their causes, determining solutions, and identifying information needs needed by the system.

According to McLeod (2007), System Analysis is research on existing systems to design new systems or update existing systems. System analysis is carried out after the planning and system design stages. The system analysis stage is very important because if an error is made in conducting system analysis, it will cause errors at the next stage.

There are several kinds of system analysis methods, including 1) the black box approach is a system where inputs and outputs can be defined, but the process is not known or undefined; 2) an Analytic system is a system that tries to look at the relationship of all problems to investigate systematically; While 3) White box

approach is a way of testing by looking into the system to research existing programs, and analyze whether there are errors or not.

### **Communication System Analysis**

Communication often focuses on attempting to effect a change in knowledge or attitude by changing the order of the communication process's source, message, channel, or receiver. A communication system is a unit or complex arrangement of various elements related to it. These elements form a unity that influences each other. So, it can be said to be a system that includes objects, attributes, internal relationships, and the environment of the communication system itself.

### **Stakeholder**

Stakeholder theory says that a company is not an entity that only operates for its own interests but must be able to benefit its stakeholders. Thus, the existence of a company is strongly influenced by the support provided by the company's stakeholders (Ghozali & Chariri, 2007). The stakeholders in question include the community, employees, government, investors, customers, suppliers, and capital markets. Thus, the existence of a company is greatly influenced by the support provided by stakeholders to the company (Rahayu, 2018). Companies must maintain relationships with their stakeholders by accommodating the wants and needs of their stakeholders, especially stakeholders who have power over the availability of resources. One of the strategies used by the company to maintain relationships with its stakeholders is the disclosure of social and environmental information. Stakeholders who play a role in developing local potential cannot be separated from the role of local champions. A local champion has the initiative to carry out a process of change in society and an institution where he must maintain relationships with his followers. Ultimately, he can act as a mediator, facilitator, and mobilizer, according to Ecopolan International (Simanjutak & S.Sariffuddin, 2017).

### **Revitalization of shrimp farming ponds**

In simple terms, revitalization can be interpreted as a process, way, or act of reviving or revitalizing. This means that a process is carried out to reactivate programs that have not been maximized to provide optimal benefits and results. Speaking of revitalization, it is certainly not an easy matter, a revitalization. It requires careful preparation and planning and revitalizing development communication, especially in education development. Therefore, various appropriate breakthroughs are required in the implementation of the revitalization. Revitalization is a process or way and action to revive or reactivate various programs of any activity. In general, the definition of revitalization is an effort to make something very important and necessary. (Effendy in Marhaeni, 2016:60). Furthermore, Effendy said that revitalization could mean processes, ways, and actions. (Marhaeni, 2016: 60).

One example of shrimp farming pond revitalization is changing the way of cultivation from traditional methods to traditional plus or intensive ways. The Ministry of Marine Affairs and Fisheries program, through the revitalization of shrimp ponds in 2012, was given in the form of goods in the form of mulch plastic / HDPE, mills, water pumps, generators, shrimp seeds, and feed. The 2013 pond revitalization program was given in the form of mulch plastic mills, water pumps, and generators (Effendi et al., 2016). It is to increase further the sense of ownership of shrimp farmers towards the pond revitalization program and, at the same time, open opportunities for banks to play a more important role in providing capital assistance to farmers in managing shrimp farming businesses (Subiakto, 2013). A study by Suhendra et al (2010) found that the income of white shrimp pond farmers showed a significant difference between white shrimp pond farming after revitalization and white shrimp pond farming.

## **METHOD**

Mulyana (2003: 145) states that research methodology is the process, principles, and procedures used to approach problems and find answers. In preparing this study, researchers conducted research from observation (observation) and literature. The author collects various information from national and international journals, news in the media, articles, e-books, modules, diktats, and other research results related to the topic of discussion, namely the communication system and stakeholder mapping (stakeholders), then analyses in-depth to be able to answer the formulation of the problem raised in this paper.

## **RESULT AND DISCUSSION**

The Communication system supports the national shrimp pond production acceleration program in 2024. The large growth opportunities in the aquaculture sector, especially shrimp, and to support government programs to accelerate the increase in productivity of Vaname Shrimp cultivation by targeting an increase in vaname shrimp exports by 250 percent by 2024, there are challenges in terms of aquaculture, especially pond revitalization. Farmers must have adequate infrastructure, capital, and ponds and improve qualified cultivation capabilities (HR). All of this can be fulfilled through the support of various systems (stakeholders) in the form of forums/discussion rooms and institutions, and the concept of cooperation is not enough without the support of a communication system that supports the implementation of the revitalization program. A synergistic system is needed in their respective roles to support the implementation of revitalization. Minister of Marine Affairs and Fisheries (KKP) Sakti Wahyu Trenggono said revitalization efforts were the best solution to increase the productivity of national shrimp ponds. The revitalization must cover all fronts. Starting from infrastructure, provision of cultivation raw materials, marketing of production products, and management.

Currently, the pond area has not been equipped with a wastewater treatment plant (WWTP), and there is no hatchery, laboratory, cold storage, or ice factory. In addition, problems in the pond area include silting canals, which make it difficult for water from the sea to enter the farmer plots (<https://mediaindonesia.com>, 2021). Shrimp pond revitalization is one way that can be done to support the national shrimp pond production acceleration program in 2024 and to support the implementation of revitalization; coordination and joint discussions between shrimp farmers, local governments, as well as related ministries and institutions are needed. (CTF, 2021). The same thing was also done by the Lampung Region Shrimp Farmers Association (P3UWL) meeting with the Tulang Bawang Regency government to convey the development of the Bumi Dipasena pond. Infrastructure problems are still a special concern for the farming community in Bumi Dipasena, the revitalization of damaged canals because since the core company abandoned the pond, the community cannot afford to carry out large-scale revitalization because it requires high costs (<https://lampungpro.co>, 2023). Dipasena Earth Pond has an area of about 6,800 hectares, covering 17,139 plots with a breakdown of 14,609 productive plots.

The involvement of many parties in accelerating the production of shrimp farming ponds shows a communication system that runs both naturally and through policy interventions. The communication system in revitalization involves a process of communication or coordination between the government (Central and Regional Governments, etc.), non-governmental organizations (NGOs, donor agencies, mass media, etc.), the private sector (companies), and the community. A communication system is needed to coordinate and run revitalization activities to achieve the set goals. An integrated communication system involving all parties can encourage the acceleration of revitalization. The system is a network of interconnected procedures to carry out an activity or complete a certain target (Jogiyanto, 1999). First, identify the system to see to what extent the communication system can be implemented.

Black Box analysis shows that in the communication system for revitalizing Bumi Dipasena shrimp farming ponds, several elements are controlled and uncontrolled inputs, environmental inputs, management, and controlled and uncontrolled outputs. Controlled input plays an important role in changing system performance. There are several factors in the controlled input elements, such as institutions, costs, competencies and capabilities of farmers, motivation, and infrastructure. Next to note is uncontrolled input. This input is necessary for the system to function (direct effect). It includes the readiness of the Bumi Dipasena farmer community, innovation development, stakeholder commitment, and demand quality. Specific that is no less important is the commitment to the role of stakeholders, the role of the government in regulation and creating a conducive economy, The role of stakeholders for investment (capital), and the role of civil society that has not been full. The working system is influenced by environmental elements, including the *menkomarves* program to increase shrimp productivity by 250% by 2024, Sustainable Development Goals (SDGs), and the government's RPJM. These environmental elements are those elements that indirectly affect the system in the

achievement of goals. Next is the output element, which is the result of a process. The desired output can be a response to the system to a predetermined need. Included in this output are, of course, synergistic partnerships, increased local involvement, as well as human capital. The purpose of a communication system for shrimp farming pond revitalization is to support the shrimp productivity improvement program in 2024. The impact of this synergistic partnership is that it improves the standard of living of individuals and indirectly affects the local economy—all these things, of course.

Undesirable outputs include system unsustainability when one actor does not play a role, which will affect the misalignment in the system. There are actors who have interest issues in a program; if it is not in accordance with their wishes, then what happens is that the actor does not continue his role. Next is the unsustainability of the system. The existence of an unprepared bureaucracy can lead to distrust between systems: mapping and stakeholder involvement in supporting the national shrimp pond production acceleration program in 2024. The Shrimp Pond Cluster Model is one of the Major Projects of the 2020-2024 RPJMN determining 5 locations for shrimp farming ponds, namely Cianjur, West Java, South Lampung, Sukamara, Central Kalimantan, Buol, Central Sulawesi, and East Aceh with each predetermined pond area (KKP, 2020) Cianjur Regency, West Java is one of the locations that is a cluster for the development of a name shrimp farming ponds set by the government. This program is adopted by Farmer Groups, which were previously rice farmers or other professions, not shrimp cultivation farmers. However, this group is willing and successful in becoming shrimp farming farmers and adopting the innovation offered by the government, namely the Vaname Shrimp Pond Cultivation Cluster. This program has succeeded in encouraging labor-intensive activities to empower local workers in Cidaun, where this effort is in line with the National Economic Recovery (PEN) program amid the COVID-19 pandemic. Udan Pond Cultivation Cluster. (KKP, 2021).

Support or involvement of stakeholders in revitalizing shrimp farming ponds in Cianjur Regency is needed. If there is no stakeholder support, then revitalization will not be carried out. The stakeholders detected will have a role in this revitalization, which are central and regional governments, the Ministry of Marine Affairs and Fisheries, banks or investors, private companies doing CSR, non-governmental organizations (NGOs), farmers, and surrounding communities. This revitalization is urgent to support the realization of government programs to increase national shrimp production in 2024 and to raise the living standards of shrimp farming communities. The study by Suhendra et al. (2017) said that post-revitalization shrimp pond farming obtained higher production and higher shrimp quality than shrimp pond farming before revitalization.

Support or stakeholder involvement is needed to accelerate the 2024 national shrimp production program. (Fahrudin, 2022)

1. Below, the role of each actor in accelerating the national shrimp production achievement program in 2024 will be explained: Government The role of government elements is as an institution that has authority in terms of integrated

licensing. Regarding supporting the program to accelerate the achievement of shrimp production targets in 2024, the most crucial problem is licensing, where authority is not centralized. Of the 34 provinces, 514 city districts or 338 coastal-based districts have licensing policies.

2. Currently, the licensing process has 21 permit doors for business actors in the regions ([www.agrofarm.co.id](http://www.agrofarm.co.id), 2022). Licensing is the Provincial Office, LHK Office, EDSM Office, Investment Office, BPJS, Manpower Office, and OSS; this affects the speed of the investment climate. The government must develop cultivation infrastructure, especially irrigation, electricity, production roads and laboratories, and SOPs (Procedur et al.) for countermeasures.
3. Community The community plays a role in creating a conducive situation around the pond, which will be in the revitalization stage. This will provide security for investors who are investing their funds in the farm. The role of the community is to keep the shrimp pond land in prime and safe condition; when the pond is clean and clear, the community is expected to fully support the development of shrimp pond revitalization; this can also create jobs for local communities. Shrimp ponds are managed in an environmentally friendly way; there is a balance between ecological, economic, and technological innovation.
4. Community participation in supporting revitalization will encourage an increase in the welfare index of the community around the pond. Farmer / Farmer Group Shrimp farming farmers play an active role in pond revitalization. The shift in cultivation from the traditional way to the modern way, namely intensive and intensive semin, will certainly change.

## CONCLUSION

Various actions taken to support the program to accelerate the achievement of shrimp production targets in 2024 are important to support the acceleration of the achievement of the coordinating minister for Maritime Affairs and Investment program, namely increasing the productivity of aquaculture by targeting an increase in vaname shrimp exports by 250 percent until 2024 or equivalent to Rp. 90 trillion. This program includes pond revitalization and other matters involving all stakeholders from various parties, central and local governments, the Ministry of Marine Affairs and Fisheries, banks or investors, private companies, non-governmental organizations (NGOs), farmers, and surrounding communities. The involvement of many parties in the program and the revitalization of shrimp farming ponds shows a communication system and stakeholder mapping that runs well naturally through interventions from various things, such as policies, investments, SOPs, innovations, and training and counseling. To support the implementation of the program, coordination and joint discussions are needed between representatives of farmers throughout Indonesia, local governments, as well as related ministries and institutions, so a network of interconnected procedures are needed to carry out an activity or completely achieve the goal of achieving shrimp production targets.

## REFERENCES

- Badri. 2018. Sistem Komunikasi dalam Pembangunan Sosial Pasca Bencana. Jurnal RISALAH Vol. 29. No. 1 Hal 66-80
- Christina, D. dan Dahlan, M. Z. (2017). Analisis sistem komunikasi penunjang ekonomi kreatif berbasis potensi lokal (studi kasus komunitas Bandung Creative City Forum (BCCF)). *Jurnal PERSPEKTIF Komunikasi UMJ* Vol. 1 No. 1
- Chrismawati & Pramono. 2021. *Mapping of Stakeholders That Have Roles In The Development of Minapadi (Mixed Farming) Agrotourism of Samberembe*. Jurnal Riset Pembangunan Volume 4 Nomor 1 Tahun 2021
- Fahrudin. 2022. Peran Pemerintah Daerah dalam Peningkatan Hasil Tambak Studi Kasus Kelompok Tani di Kecamatan Sinjai Utara
- FAO. (2020). The state of world fisheries and aquaculture, Rome, 2022. <https://www.fao.org/3/cc0461en/cc0461en.pdf>
- Ghozali dan Chariri, (2007). Teori Akuntansi. Badan Penerbit Undip: Semarang.
- Hendarajat. 2015. Tambak Plastik Mulsa untuk Budidaya Udang Vaname (*Litopenaeus Vannamei*) Semi Intensif. Prosiding Forum Inovasi Teknologi Akuakultur 2015
- Jogiyanto, Hartono. (1999). Analisis dan disain sistem informasi: pendekatan terstruktur teori dan praktek aplikasi bisnis. Yogyakarta: Penerbit Andi.
- BPBAP Situbondo. (2021). Budidaya Udang Vaname (*Litopenaeus vannamei*) di Tambak Milenial. Kementerian Kelautan dan Perikanan Direktorat Jenderal Perikanan Budidaya. Balai Perikanan Budidaya Air Payau Situbondo. BPBAP Situbondo.
- Kemenko Marves. (2021). Salinan Keputusan Menteri Koordinator Bidang Kemaritiman Dan Investasi Republik Indonesia Nomor 130 Tahun 2021 Tentang Program Prioritas Kementerian Koordinator Bidang Kemaritiman Dan Investasi Tahun 2021.
- KKP. (2020). Program Percepatan Tambak Udang Nasional. Materi presentasi Direktur KKI.
- KKP. (2021). Klaster Budidaya Tambak Udang Vaname Di Cidaun Berhasil Bantu Penyerapan Tenaga Lokal. <https://kkp.go.id/djpb/artikel/35162-klaster-budidaya-tambak-udang-vaname-di-cidaun-berhasil-bantu-penyerapan-tenaga-lokal>
- Laudon, Kenneth C., Laudon, Jane P. (2010). *Management information systems (11th Edition)*. New Jersey: Pearson Prentice Hall
- Ludovico et al. 2020. Stakeholders Mapping for Sustainable Biofuels: An Innovative Procedure Based on Computational Text Analysis and Social Network Analysis. <http://dx.doi.org/10.3390/su122410317>
- Marhaeni. Dwi Pangastuti. (2016). "Revitalisasi Komunikasi Tradisional Pada Era Globalisasi". ISKI 1 (Oktober). Hal 59-63
- Mardikanto, T. (2009). *Sistem Penyuluhan Pertanian*. UNS Press
- Meleod Jr, Raymond, George P Schell. (2007). *Management Information Systems (10th Edition)*. USA: Pearson Prentice Hall.
- Mulyana, Deddy. 2003. *Metodologi Penelitian Kualitatif*. Bandung: Remaja Rosdakarya

- O'Brien, J. A., Marakas, G. M. (2008). *Management information system*. 8th Edition. New York: McGraw Hill.
- Patminingtyas, T. U. (2020). *Kolaborasi Stakeholder Dalam Pemberdayaan Masyarakat Berbasis Komunitas Di Kampung Wolulas (Studi Kasus di RW 18, Kelurahan Turen, Kabupaten Malang)*. Malang: Universitas Muhammadiyah Malang.
- Pace, R.W. & Faules, D. F. (2010). *Komunikasi Organisasi*. PT. Remaja Rosdakarya. Bandung Sumber: <https://mediaindonesia.com/humaniora/412033/menteri-kkp-ingin-tambak-udang-dipasena-segera-direvitalisasi>
- Rahayu et al. (2018). *Stakeholders Mapping for Restoration of KHDTK Samboja*. *Jurnal Analisis Kebijakan Kehutanan* Vol. 15 No.2, November 2018: 127-142
- Rencana Strategis Tahun 2020-2024 Direktorat Jenderal Perikanan Budidaya. Nomor. 272/KEP-DJPB/2020 tanggal 30 Juli 2020
- Suhendra. 2010. *Dampak Revitalisasi Budidaya Udang Terhadap Pendapatan dan Resiko Usaha pada Usahatani Tambak Udang Putih*
- Sumardjo. (2010). *Peningkatan Kapasitas Modal Sosial dan Kualitas Pendamping Pengembangan Masyarakat Berkelanjutan*. Artikel tersedia di: <https://repository.ipb.ac.id/handle/123456789/32309>
- Triyatmo. 2020. *Manajemen Budidaya Udang dalam Tambak yang Ramah Lingkungan dan Berkelanjutan Saat dan Pasca Pandemi Virus Corona 2019 (Covid-19)*. Departement Perikanan, Fakultas Pertanian, Universitas Gadjah Mada
- Yogopriyatno & Kahar. 2020. *Analisis Stakeholders Mapping dalam Penanganan COVID-19 di Kota Bengkulu*. PESIRAH: *Jurnal Administrasi Publik*, 1(2), 45-51, 2020 doi: 10.47753/pjap.v1i2.24  
[https://maritim.go.id/menko\\_luhut\\_minta\\_program\\_peningkatan\\_ekspor\\_udang\\_vaname](https://maritim.go.id/menko_luhut_minta_program_peningkatan_ekspor_udang_vaname)  
<https://lampungpro.co>  
<https://mediaindonesia.com>  
[www.agrofarm.co.id](http://www.agrofarm.co.id)