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Research Article

## Co-Creation of Public Service Innovation for Marginalized Groups in The Underdeveloped Regions

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### Abstract

*Marginalized groups in underdeveloped regions still experience difficulties accessing public services. Co-creation of public service innovation is urgent to solve limited resources for providing public services to marginalized groups. This article aims to describe and analyze the type, influential actors, and influential factors of the co-creation of public service innovation for marginalized groups. This study applied a qualitative descriptive method with the research locus in the local governments of North Lombok Regency, Tojo Una-Una Regency, and Sorong Regency. Data were collected using in-depth interviews and FGD. North Lombok Regency was considered to have the most varied actors since they involved farmers group, trainers, non-governmental organizations, and the private sector to support the local government in co-initiating, co-designing, and co-implementing their innovations. Meanwhile, the Local Government of Tojo Una-Una Regency and Sorong Regency only involved the community in designing and implementing innovations. Further, the results of this study show that influential factors from several perspectives. From the government's perspective, the local governments did not reflect the risk-averse but have shown an open attitude to co-creation. From the citizens' perspective, concerns about the economic and health conditions of the marginalized people around them were their main motivation to participate in providing public services. Local governments should broaden the participation of actors to accelerate the target achievement.*

**Keywords:** Co-Creation; Public Service Innovation; Underdeveloped Regions; Marginalized Groups

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## INTRODUCTION

Marginalized communities still frequently have less access to public services. A report from the World Public Sector (United Nations, 2008) states that the poor and disadvantaged groups are increasingly marginalized. Immigrants from developing countries (Agudelo-Suárez et al., 2009), trafficked women (Vijayarasa, 2010), ethnics minorities (Rheinländer et al., 2010), and rural residents (Jia et al., 2022; Madon & Krishna, 2022) are some groups that struggle to access public service. This issue is closely related to the local social and cultural environment and the government's governance capacity. One of the most cited constraints is associated with economic problems in paying for services, including transportation costs (Laksono & Wulandari, 2022). Other issues include service infrastructure and public services that do not meet the needs of marginalized groups (Bonnell et al., 2021).

The marginality of particular community groups is related to economic, spatial, and social conditions. These prevent certain community groups from accessing services, resources, and freedom of choice. These conditions can be perceived as challenges to development and may lead to extreme poverty (Gatzweiler et al., 2011; Pelc, 2017). According to the Ombudsman of the Republic of Indonesia (2019), marginality is an area or group that cannot obtain access to public services properly due to the condition of the area or group that is still below the margin in the form either given or constructed, spatial and social.

Public service problems become even more complex for marginalized groups living in underdeveloped regions. Underdeveloped regions and their communities are less developed than other regions in terms of community economy, human resources, infrastructure, regional financial capabilities, accessibility, and character. Based on Presidential Decree No. 63 of 2020 on the Determination of Underdeveloped Regions for 2020-2024, 40 regions fall into underdeveloped areas. The poor, vulnerable women, the elderly, and people with disabilities living in disadvantaged areas are a double marginal group. They struggle to access services because of their low economic and social conditions, exacerbated by living in underdeveloped areas with limited service facilities and poor infrastructure. As a result, the government should make some interventions to help this community equally access public service.

One of the interventions carried out by the central government to increase the accessibility of marginalized groups to public services is the National Action Plan of Open Government Indonesia (RAN OGI). This program is coordinated by the Ministry of National Development

Planning Agency (Bappenas) and the OGI secretariat under the fifth mission: public service innovation models for marginalized groups. This mission is achieved through an innovation laboratory (laboratorium inovasi) activity carried out by the National Institute of Public Administration (LAN) in collaboration with the Nadhatul Ulama Human Resources Research and Development Institute (Lakpesdam NU). The collaboration between LAN and Lakpesdam NU started from 2021 to 2022, with different locus every year. LAN provides the capacity building to innovate to produce the output of public service innovation ideas for marginalized groups. Meanwhile, Lakpesdam NU sharpens the perspective of the context of marginality in Indonesia for innovation laboratory facilitators.

The four local governments of the innovation laboratory locus in 2021 and part of the RAN OGI were the North Lombok Regency Government, the Tojo Una-Una Regency Government, the Tanimbar Islands Regency Government, and the Sorong Regency Government. The four regional governments are classified as underdeveloped based on Presidential Regulation Number 63 of 2020 on the Determination of Underdeveloped Regions in 2020-2024. In addition, in terms of the ability to innovate, these governments are considered less innovative and cannot be assessed, as illustrated in Table 1 about the regional innovation index issued by the Ministry of Home Affairs.

**Table 1.** Four Local Government Innovation Index in 2019 and 2020

Regency	Local Government Innovation Index in 2019	Local Government Innovation Index in 2020
Tojo Una-Una	Can not be assessed	Less innovative
Lombok Utara	Can not be assessed	Less innovative
Kep Tanimbar	Can not be assessed	Less innovative
Sorong	Can not be assessed	Can not be assessed

*Source: Kepmendagri No.002.6-415 Tahun 2019; Kepmendagri No.100-4672 Tahun 2020*

From the poverty indicator, the four regencies' Poverty Depth (Gap) Index and Poverty Severity Index are below the national poverty line. In 2022, Statistics Indonesia (BPS) revealed a national Rural Poverty Depth Index value of 2.25 and a national Rural Poverty Severity Index of 0.59 (BPS, 2022). The poverty depth index shows how much the expenditure of the poor differs from the average poverty line. The higher the index value, the farther the average population expenditure is from the poverty line. At the same time, the poverty severity index shows the

distribution of the poorest people's expenditure in an area to the average expenditure of the poor in that region. The higher the index value, the higher the disparity in spending among the poor. When the numbers of the two indices are high, poverty is deemed more severe. Poverty alleviation is a complex social process requiring increased collaborative efforts from multi-level stakeholders to create an innovation system that results in successful innovation programs for the poor (Bappenas, 2008; Yin et al., 2022). Table 2 presents the poverty severity and depth indexes for the four regencies.

**Table 2.** Poverty line of Four Local Governments

Regency	Poverty Line	
	Poverty Gap Index	Poverty Severity Index
Tojo Una-Una	3.25	0.95
Lombok Utara	5.69	1.66
Kep Tanimbar	5.10	1.58
Sorong	3.64	1.29

*Source: BPS, 2022*

The government has limitations in providing public services for marginalized groups in underdeveloped areas. According to the Presidential Regulation on underdeveloped regions, the local governments face multiple problems, such as the lack of regional financial conditions, facilities, and infrastructure. Therefore, it is also vital to increase public participation to increase effectiveness and efficiency in public services (Vigoda, 2002) as well as to overcome the marginalization of creativity, speed, flexibility, and high productivity (Heidelberg, 2017; Kumar, 2019).

Traditional government administration relies on the assigned budget. They will work and provide public services based on that budget (Gouillart & Hallett, 2015). Meanwhile, other stakeholders outside the government, such as the community, organizations, and the private sector can be involved in providing public services. With experience, capacity, and knowledge, recipients of services can co-create with public organizations to overcome budgetary problems and achieve common goals (Alves, 2013).

Based on the described background, this study aims to determine the type of co-creation of public service innovations in the local governments, including the involved stakeholders and their

roles. In addition, this article aims to analyze factors that support the co-creation of public service innovations in the underdeveloped regions.

The change from old public administration to new public management (NPM) and then to new public governance (NPG) is one of the factors in increasing relations between the government and other actors outside the government (Brock, 2020; Díaz-Díaz & Pérez-González, 2016). Co-creation is one form of citizens' involvement in providing services. The co-creation value is beyond simple citizen participation. Rather, citizens involve in the co-design of solving the problems (Alves, 2013). A similar opinion about co-creation is stated by Gouillart and Hallett in 2015. They believe citizens have a significant role in initiating and/or designing public services. In the co-creation process, various stakeholders build new practices that go against the traditional bureaucratic, top-down process to be bottom-up with a broad view (Gouillart & Hallett, 2015).

There are three types of co-creation (von Hippel, 2007). The first is called co-initiation, in which citizens initiate to formulate a particular service. The second type is co-design, promoting citizens' involvement in designing the idea and process of the service. The final type is co-implementation, where citizens deliver the services which were delivered by the government. Based on a systematic literature review, the degree of citizen involvement in public service is divided into three types with similar definitions as the previous one, namely citizens as co-implementer, citizens as co-designer, and citizens as initiators (Voorberg et al., 2015). Another scholar identified two types of co-creation, namely intrinsic and extrinsic co-creation. Intrinsic co-creation is passive participation, such as becoming an informant when public services are studied. Meanwhile, extrinsic co-creation is defined as citizens' active involvement in giving feedback and taking part in implementation (Mureddu & Osimo, 2019). The present study, however, only focuses on the active involvement of the citizens in the co-creation process.

The influential factors of co-creation must be considered from the government and the citizen sides (Voorberg et al., 2015). From the government side, the driving factors are the risk-averseness of civil servants, the attitude of civil servants towards co-creation, clear incentives for co-creation, and the compatibility of the organization with co-creation. Meanwhile, from the citizen side, the driving factors are the willingness to co-create, awareness and feeling of ownership, and the presence of social capital. According to a study in Slovakia, ideology background also influences the co-creation process (Meričkova et al., 2015).

Research on the co-creation of public sector innovation was mainly conducted by European authors. Bentzen et al. (2020) , for example, investigated this issue in the context of the Scandinavian countries. The research shows that political leadership will be more decisive if elected board members co-create innovation with society. Meanwhile, co-creation research in Slovakia shows that non-governmental organizations or communities initiate more innovations than governmental institutions. The reason might be linked to the cultural heritage of socialist governments in the past since they tended to be reluctant to take risks (Meričkova et al., 2015). In the Netherlands, co-creation involves a community of professionals with their respective expertise. This program has been successfully implemented (Voorberg et al., 2014). Other research was also conducted in the North part of America, Mexico. The research focused on collaborating with higher education institutions, non-governmental organizations, and communities to co-create FabLab space for experiments and science, technology, arts, and mathematics (STEAM) learning among marginalized communities (Lotz et al., 2019).

Based on the comparison of previous studies above, this research aims to fill the gap by examining the co-creation of public sector innovation in non-European contexts. The research is significant because the co-creation is directed at multiple marginalized groups, both socio-economically and spatial, in the underdeveloped regions of Indonesia. It informs the background of innovation, types of active involvement of citizens, and actors involved in the co-creation process. Besides, it provides influential factors of co-creation from the government's and citizens' perspectives.

## **RESEARCH METHOD**

This research used a descriptive qualitative method. Data were collected from in-depth interviews, focus group discussions (FGDs), and official documents from the local governments. It involved seven informants from government officials. The informants comprised two civil servants representing the development planning agency (*Bappeda*) and food security, agriculture, and fishery agency (*Dinas Ketahanan Pangan, Pertanian, dan Perikanan*) of the North Lombok Regency Government. The other two informants were civil servants from the development planning agency (*Bappeda*) and Ampana Tete Subdistrict of Tojo Una-Una Regency Government. The rests were civil servants representing the development planning agency (*Bappeda*), health agency (*Dinas Kesehatan*), and Segun Primary Health Center (*Puskesmas*) of Sorong Regency

Government as the service providers. In addition to the government officials, the research also interviewed five citizens as local government partners in implementing the co-creation of public service innovations. These informants consisted of a group leader of a vannamei shrimp farmer and the trainer of the farmer in Lombok Utara regency. Additionally, there were a hamlet chief and one member of Satgas Kibbar in Tojo Una-Una Regency. The final citizen represented a Segun Primary Health Center cadre in Sorong Regency. As argued earlier, this research focused on three innovations originating from three regencies, namely North Lombok Regency Government, Tojo Una-Una Regency Government, and Sorong Regency Government. These innovations and local governments were chosen because they have been implementing and involving citizens in initiating, designing, and/or implementing them. Triangulated informants and related literature were submitted by researchers during interviews and FGD sessions.

## **RESULTS AND DISCUSSION**

In order to solve the government's limitations in providing public services in three underdeveloped regions, the local government collaborated with citizens in initiating, designing, and implementing innovations. Citizen involvement has significant abilities and plays a vital role in co-creation (Alves, 2013). This capability will help the government resolve its various limitations in providing public services.

### **1. Budame Miskin (*Budidaya Udang Vannamei Sistem Kolam Bundar Bagi Perempuan Miskin/ Vannamei Shrimp Farming with Round Pool for Poor Women*), Lombok Utara Regency**

The poverty rate of the North Lombok Regency is the highest in West Nusa Tenggara Province (BPS NTB, 2021). The coastal poor in North Lombok Regency work in the fisheries sector. However, the fishers' – the majority are men – income cannot fulfill household needs. Meanwhile, coastal women or fishers' wives tend to contribute less to the family economy. In fact, North Lombok Regency has fishery potential (BPS Lombok Utara, 2020), including vannamei shrimp farming. Before this innovation, the vannamei shrimp farmings were only managed by prominent entrepreneurs with large capital.

This innovation aims to improve the economic welfare of coastal communities by helping the community manage vannamei shrimp farming from production to marketing. In addition, vannamei shrimp farming is a learning medium for coastal women to farm vannamei shrimp, organize, and carry out marketing promotions. The long-term impact of this farming is expected to



bring North Lombok Regency out of the category of underdeveloped region and decrease the number of poor people.

The innovation was initiated by the private sector, which cultivated vannamei shrimp. The private sector provided all the farming needs to the surrounding community. Then, the government took part by supporting community groups that wanted to have shrimp farming through training. The training taught the community to organize shrimp farming, such as division of tasks, training design, identification of required equipment, and design of funding. It was carried out jointly by the local government and coastal women who were members of vannamei shrimp farming. A civil servant from the food security, agriculture, and fishery agency stated:

*“In the beginning, the private sector initiated this innovation and provided round pools, machines and its electricity, shrimp fry, and oxygen. Meanwhile, the local government provided farming training to poor coastal women. Later, the local government allocated a budget to provide round pools and oxygen machines.”*  
(Interview, May 2022)

In the implementation process, the farmer groups were also involved in co-sharing the budget to fulfill the needs of vannamei shrimp farming. In addition, the farmer group needed to improve their marketing ability and knowledge. One NGO was involved in increasing this capacity. In training, the farmer trainers also opened the opportunity to expand the market. A leader group of farmers said:

*“We have limited knowledge about farming and marketing. The government provided us a trainer for vannamei shrimp farming. Shrimp farming needs a market so that the farmers can sell the shrimp. Therefore we need knowledge of how to expand the market through digital marketing or social media. To fulfill this need, an NGO helped us learn to sell shrimp online. In addition, we also learn how to expand our market offline.”* (Interview, May 2022)

A trainer of the farmers added information about additional knowledge and experience to expand the market. She pointed out:

*“To train the women about cultivating the vannamei shrimp is the trainer’s main responsibility. However, our interaction is not limited to farming only. We always try to help the farmers if they face problems. Besides, we also share information about the market outside Lombok Island. As a result, vannamei shrimp has been exported to Java”* (Interview, May 2022)

2. Satgas Kibar (*Satuan Tugas Kesehatan Ibu, Anak, dan Remaja/* Task Force for Mother, Children, and Adolescents Health), Tojo Una-Una Regency



Stunting is one of the central issues in the Tojo Una-una Regency. The percentage of children experiencing stunting in this regency was 22.7% in 2020 (Dinas Kesehatan Provinsi Sulawesi Tengah, 2020). Meanwhile, the national target, as stated in the National Medium-Term Development Plan (RPJMN) for 2020-2024, is 14%. The causes of stunting in Indonesia are nonexclusive breastfeeding for the first six months, premature birth, short birth length, household socioeconomic issue and low maternal height and education (Beal et al., 2018). Another factor includes pregnant women who lack nutrition and become pregnant in their teens.

To prevent and overcome stunting problems in Tojo Una-Una Regency, Ampana Tete District particularly has co-created innovations by involving the community as members of the task force. The task force aimed to reduce the percentage of stunting in Tojo Una-Una Regency. Ampana Tete sub-district government formed a task force to educate, record, and report the health condition of pregnant women, babies, and children. Interestingly, the targets of this innovation were not only mothers, babies, and children but also adolescents. The innovation attempted to prevent early marriage or pregnancy among teenagers, which can cause stunting.

This innovation was called the Kibar Task Force. The initiator of the innovation was the sub-district head of Ampana Tete, who was concerned about the high stunting rate in the Tojo Una-Una Regency. He created a task force in every village and formalized it as a Kibar Task Force decision letter. The design process, which included the job description and work methods of the Kibar Task Force, was initiated by the sub-district apparatus. The design was then submitted to cadres, village officials, and task force members. Suppose there were responses and input on the methods and work methods that the sub-districts have prepared. In that case, they could advise Ampana Tete sub-district government about the design of the Kibar Task Force implementation.

The main actors in implementing innovation were cadres, village officials, and the neighborhood as members of Satgas Kibar. They recorded pregnant women and babies with low body weight. In addition, they were responsible for monitoring the condition of pregnant women and babies with low weight who were at risk of creating stunting. The task force members should attend the village planning forum to ensure the availability budget to reduce stunting. A cadre from the Ampana Tete subdistrict explained:

*“Every village in Ampana Tete district has their own Satgas Kibar, which is coordinated by the sub-district government. Cadres and I recorded malnourished or underweight children in our village. Then, we reported the result to the primary health center (Puskesmas) and the integrated service post (posyandu) so that they could give*

*medical treatment to those children. Besides, cadres and sub-district government also took part in the planning forum of the village to make sure that the village provided budget for handling stunting issue” (Interview, May 2022)*

The role of the sub-district government was to coordinate task force members and follow up if there were problems on the ground, such as the husband of a pregnant woman who was at high risk but did not want to give birth in a public health facility. The sub-district apparatus and the *Puskesmas* staff went directly to take the pregnant woman to the *Puskesmas*. A civil servant from Ampana Tete Subdistrict explained the communication pattern in Satgas Kibar:

*“Members delivered updates on task force activities via the WhatsApp group, which included the sub-district head. Thus, the sub-district head can monitor the implementation and problems faced by members of the Kibar task force during their duties. The sub-district officials will take action if the task force members cannot resolve the problem. For example, we once met a high-risk pregnant woman who was not allowed to give birth at a health facility. We went out and convinced the family that ensuring citizens' lives and safety was the government's duty. Finally, the family allowed the pregnant woman to give birth at a health facility” (Interview, May 2022)*

### 3. Satiba (*Sayang Ibu Sayang Bayi/ Love the Mother and Baby*), Sorong Regency

Based on the West Papua health profile in 2018, pregnant women who gave birth in healthcare facilities in Sorong Regency were around 58.2%, and deliveries assisted by health workers were around 74% (Dinas Kesehatan Provinsi Papua Barat, 2018). Factors that cause pregnant women not to give birth at health facilities because they think giving birth at them requires a large amount of money. Women tend to give birth at home so that all the family members gather to see the baby. Therefore, this innovation aims to increase community visits to the primary health center (*Puskesmas*), especially for pregnant women and those who will undergo the birth process.

Satiba originated from the Health Agency of Sorong Regency. The innovation is implemented by Segun primary health center and supported by the health agency of Sorong Regency. It involves the community, namely the headman of villages and cadres, for implementation. The headman and cadres carry out monitoring and data collection of pregnant women with their health conditions regularly. In addition, they assist pregnant women at health service facilities, especially women who live in inaccessible areas by public transportation. A civil servant from Segun Primary Health Center informed:

*“Satiba is a program aiming to help mothers and babies whose delivery process cannot be reached by public transportation to prevent maternal and baby deaths because they do not want to give birth at health facilities. All their family members should gather*

*when a baby is born. Before giving birth, it is scarce for women to do pregnancy checks with a doctor or midwife because they are afraid they should pay a large amount of money.” (Interview, May 2022)*

The village head and cadres are involved in this innovation in the implementation process. They become the representatives of the government's presence in the villages. The village head and cadres are first trained by *Puskesmas* officers to educate pregnant women and their families. After the training, village heads and cadres collect data on pregnant women, report their condition to *Puskesmas* officers, and provide health education to the pregnant women and their families. The cadres can even seek transportation to take pregnant women who would give birth to health service facilities. A cadre from Segun primary health center said:

*“We tried to advise a pregnant woman’s family to give her food, but the family resisted that advice. We still looked after her even though the family resisted our advice. After three days without food, we contacted a health agency to save the woman. This issue happened because there is a belief in the village that if you want to give birth, you cannot eat because if you eat, feces will come out. The villagers believe that bad luck will happen if the feces come out. To reach the woman, the cadres need a boat. Then, the health agency provided a boat from the shrimp company.” (Interview, May 2022)*

A civil servant from the health agency responded:

*“Yes, there is a belief that the feces of pregnant women who will give birth invite bad luck. Fortunately, the cadres have been informed that sufficient nutrition during pregnancy is very important, and there are negative impacts if pregnant women do not eat for days. The cadres tried to reach us, and we took action immediately.” (Interview, May 2022)*

### **Types of Co-Creation and Actors Involved**

Each actor has a different role. Table 3 informs the types of co-creation and the role of every actor in three innovations. For example, various actors are involved in co-initiating, co-designing, and co-implementing Budame Miskin innovation, ranging from the local government, the private sector, farmers groups, and non-governmental organizations. Meanwhile, the actors involved in Satgas Kibar and Satiba are the local governments and the community. They contribute to designing and implementing the innovations.

**Table 3.** Co-creation Comparison of Three Innovations

Title of Innovation	Description	Regency	Community			Private Sector			NGO			Local government			
			1	2	3	1	2	3	1	2	3	1	2	3	
Budame Miskin (Budidaya Udang Vannamei Sistem Kolam Bundar Bagi Perempuan Miskin)	Vannamei shrimp farming is carried out by poor women in coastal areas using biofloc. The implementation of this innovation involves local government, the private sector, the community, and NGO	Lombok Utara Regency	√	√		√					√	√	√	√	
Satiba (Sayang Ibu Sayang Anak)	This innovation aims to help women who give birth, especially in areas that are difficult to be accessed by four-wheeled transportation. This innovation involves the community, such as local government, headman, and cadres of primary health center.	Sorong Regency			√								√	√	√
Satgas KIBAR (Satuan Tugas Kesehatan Ibu, Anak, dan Remaja)	A task force that provides services in the form of additional food for babies, toddlers and pregnant women who lack protein energy to prevent stunting. In addition, it provides education about health to adolescents.	Tojo Una-Una Regency		√	√								√	√	√

Notes:

1. Co-initiating
2. Co-designing
3. Co-implementing

Source: Interview with informants, 2022

This section explains the influential factors of the co-creation of public sector innovation to help marginalized people in the three local governments from the government's and citizens' perspectives. Influential factors from the government's perspective are the risk-averseness of civil servants, the attitude of civil servants towards co-creation, clear incentives for co-creation, and compatibility of the organization. Meanwhile, from the citizens' perspective, the factors are willingness to co-create, awareness and feeling of ownership, and social capital.

### **Influential Factors from The Government's Perspective**

#### **a. Risk-averseness of civil servants.**

Government institutions have few mechanisms to react and adapt to change (Janssen & van der Voort, 2016). According to Janssen and Van der Voort, the bureaucracy has traditional governance and focuses on stability and accountability to long-term needs. Nevertheless, on the other hand, the government needs to solve the complexities of various problems and meet people's expectations so that innovations that meet the community's needs are essential (Mulgan & Albury, 2003).

The local governments do not reflect the risk-averse culture. The condition of human resources for coastal communities in North Lombok Regency is still low, especially in education. It is one of the challenges from the initiation to the implementation processes of this innovation. The opportunity for this innovation to not run smoothly is possible. This is true, especially from the perspective of coastal women's competence in shrimp farming and its inadequate marketing. However, the North Lombok Regency government provides a budget allocation sourced from the Regional Budget to carry out innovations in vannamei shrimp farming. In addition, the local government is also trying to obtain a capital network with low interest to help the independence of women's groups involved in vannamei shrimp farming.

The local governments, the Kibar task force members and Satiba cadres dare to explain the appropriate information about health even though it is contrary to the people's beliefs. In addition, Ampana Tete Sub-district officials should convince the village government to allocate the budget to solve the stunting issue even though there is a possibility that village officials disagree with sub-district input. These local governments prefer outcomes even though with high uncertainty.

#### **b. The attitude of civil servants towards co-creation**

One of the goals of innovation in the public sector is to increase community involvement in governance, including public services (de Vries et al., 2016). Community involvement is not only a tool to solve problems in society. The involvement of various stakeholders in innovation also has a

significant impact, such as the development, implementation, and dissemination of these innovation ideas (Bommert, 2010). Therefore, the government will benefit if it invites citizens to participate.

The initiation of vannamei shrimp farming came from shrimp farmers who wanted to improve the economic conditions of coastal communities by providing round pools, fry, and other equipment. The local government welcomed the good intentions of the private sector by providing trainers to coastal women on how to cultivate vannamei shrimp. The local government also encouraged independence by adding pools for groups that local governments and the private sector previously facilitated. In addition, co-sharing the budget created a pool between local governments and groups of farmers. The regency government was also very open to the involvement of additional actors, such as NGOs to strengthen the capacity of farming groups.

Similarly, such innovation requires multi-stakeholders to pay attention to the conditions of the marginalized people, such as cadres, neighborhood, or village officials who are aware of the condition of pregnant women and babies. For example, Segun Primary Health Center officers in Sorong Regency are aware of the limitations of providing public services to marginalized groups. One example is the limited number of human resources to monitor the condition of pregnant women in the working area of the Segun Health Center. Thus, the local government invites the community to support the Segun Primary Health Center officers. However, the implementation of Satgas Kibar and Satiba has not invited various actors such as the private sector, NGOs, and universities, to develop and support the innovation.

### **c. A clear incentive for co-creation**

Local governments do co-creation due to the limited number of local government human resources and budgets to carry out public services. The government of North Lombok Regency, for example, was greatly helped by the private sector, which provided initial equipment for farming and co-sharing the budget with farmer groups. They help the government's responsibility by creating jobs and improving the welfare of the community through vannamei shrimp farming. In order to appreciate innovative agencies, local development planning agency allocates an additional budget to develop Budame Miskin innovation. An informant from local development planning agency said: *“We provide a stimulus in the form of an additional budget for food security, agriculture, and fishery agency for the broader socialization of vannamei shrimp farming and monitoring its development”* (Interview, May 2022).



Similarly, the local governments of Tojo Una-Una Regency and Sorong Regency obtain additional resources from the community. The geographical condition of these regions is wide and in the form of an archipelago, requiring cadres as the representatives of the government to provide services to the community. Segun primary health center also receives indirect financial support from village funds. The village fund is a source of transportation incentives for cadres.

Incentives are benefits obtained by the government and citizens so that they are willing to participate in co-creation (Voorberg et al., 2014). Clear incentives that actors will receive will increase commitment to implementing co-creation (Joshi & Moore, 2004). Sharing human resources and budgets between local governments and involved stakeholders is very helpful in overcoming the limitations of local governments in providing public services for marginalized groups.

#### **d. Compatibility of organization**

The compatibility of organizations refers to organizational procedures and facilities to co-create innovation (Voorberg et al., 2014). The three innovations do not require high technology or other specific hard skills, so they do not require human resources who have specific high skills. The presence of innovation and community involvement in the co-creation process is in line with each organization's main tasks and functions. Thus, the role of each actor can run optimally, especially civil servants. The co-creation enables them to perform better because public service tasks involve additional resources outside the government. An informant from the local development planning agency of Sorong Regency said: *"we support all kinds of public service innovation which can improve the quality of public service, especially innovation that will support us achieve the middle and long-term vision of the local government"* (Interview, May 2022).

### **The Citizens' Perspective**

#### **a. Willingness to co-create**

Scholars believe that the motivation to engage in the co-creation of public service innovations is not money but concern for vulnerable groups and a desire to improve the situation (Wise et al., 2012). For instance, the private sector involved in the co-creation of vannamei shrimp farming innovation for poor women in North Lombok Regency also puts aside profit motivation when involved in the co-creation of public service innovations. Members of the Kibar task force in the Tojo Una-Una Regency are motivated to reduce stunting rates in Tojo Una-Una Regency, specifically in Ampana District. Cadres and village heads in the Segun Health Center working area are concerned



about pregnant women who have difficulty accessing health facilities. They give their energy and time to record, monitor, and take pregnant women to health facilities.

Nevertheless, it is undeniable that the actors may also have different motivations. For example, the motivation of women's groups to engage in co-creation is to increase their income. This group of poor women is the target group as well as partners of the local government. They exist as partners because they are involved in the design process for vannamei shrimp farming, from production to marketing. On the implementation side, they are also involved in providing electricity tokens, fry, and generators. A group leader of vannamei shrimp farmer said: *“We want to improve our economic condition and to fulfill our children’s educational needs. We also want to show that poor people like us can succeed in vannamei shrimp farming like the prominent entrepreneurs.”* (Interview, May 2022)

#### **b. Awareness and Feeling of Ownership**

The government encourages community involvement in co-creation to foster strong determination in implementing these innovations (Pestoff, 2012). Communities become responsible because they are involved as subjects of co-creation, not only as objects. In addition, another benefit of the actors’ involvement is to increase the sense of ownership.

The Budame Miskin innovation certainly gives a sense of ownership to the group of poor women involved in innovation because they receive direct benefits from vannamei shrimp farming. The women involved gave their time, energy, and resources so that vannamei shrimp farming in North Lombok Regency can grow and develop. Village heads and cadres also feel that they have innovation because some village funds are given to compensate cadres so that cadres can carry out their duties more optimally. Meanwhile, the task force in Tojo Una-Una Regency feels that they have innovation because they are formally included in a decree signed by the sub-district head, which contains their rights and duties. A Kibar Task Force member said:

*“We become part of this task force because we are sad that the percentage of stunting in our sub-district and Tojo Una-Una Regency is higher than the national target. And the reason why we stay and are still part of this task force is that the sub-district government give us the opportunity to convey our opinion. Besides, Ampanan Tete Sub-District also provides fast response if we face problem”* (Interview, May 2022)

#### **c. Presence of social capital**

Based on previous studies, social capital has a significant role in co-creation (Andrews & Brewer, 2013). The success of co-creation depends on the level of trust between the actors involved, their ability to overcome difficulties, and the willingness of the community to determine whether the co-creation initiative is successful (Castro-Arce & Vanclay, 2020; Voorberg et al., 2014). Based on

the interviews with communities involved in the three innovations, they are motivated to work well because the local government has shown a strong commitment. The government is committed to coordinating and managing the resources needed to implement innovation. The North Lombok Regency Government can overcome the challenge of poor women's inadequate knowledge about farming by providing them with regular training. In addition, the government of Sorong Regency can convince village officials to allocate village funds to meet the transportation needs of cadres because Segun Primary Health Center and cadres have shown the positive impact of Satiba on pregnant women and the baby.

## **CONCLUSION**

Various actors are involved in co-initiating, co-designing, and co-implementing innovation in underdeveloped regencies. Three innovations discussed in this research involve the community, such as village officials, cadres, poor women, and neighborhood. Budame Miskin from North Lombok also involves the private sector and NGOs, whereas Satiba and Satgas Kibar only involve the community. Local governments and involved citizens demonstrate their respective competencies and resources in co-creation. They use those competencies and resources to initiate, design, and implement public service innovation.

This research concludes that local governments and citizens benefit from co-creation. The local government receive resource support from citizens, while citizens obtain economic benefits and additional knowledge. The previous research stated that communities and citizens as users of public services are more likely to be involved when they can see the benefits of doing so. Further, when public servants can demonstrate credible leadership qualities, they can affect the effectiveness of co-creation programs. However, economic benefits and knowledge are not the main motivation for some citizens to participate in the co-creating of public service innovation, such as cadres and headmen of the village. Social awareness to improve the health and economic status of marginalized groups is the factor that encourages citizens to involve in co-creation.

The issues of poverty, stunting, and maternal and infant health cannot only be resolved by the local government and the community. Inviting a more expansive network with diverse resources to participate in public service innovation can accelerate the achievement of local government targets. North Lombok Regency has reflected good networking with the private sector and NGOs. However, Tojo Una-Una and Sorong Regency need to improve and broaden their network. Although there is an

extensive discussion about the types and actors of co-creation, this research does not describe and examine the impact of co-creation. Further research, therefore, can be directed to identify the effectiveness of the participation of marginalized groups in the co-creation of public service innovation.

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