

AFT Pattimura CSR Pentahelix Collaboration in the Implementation of Waste Management Center Social Innovation Program: Nekat SA (Negeri Katong Tanpa Sampah)

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ABSTRACT

<p>Keywords: penta helix collaboration; waste management innovation; social responsibility (CSR) program.</p>	<p>The NEKAT SA (Negeri Katong Tanpa Sampah) program, initiated by PT Pertamina Patra Niaga Aviation Fuel Terminal Pattimura, represents a social innovation aimed at addressing waste management challenges in Negeri Laha. Involves converting waste into valuable products. Aims to establish a circular economy. NEKAT SA is dedicated to achieving zero waste by managing organic, inorganic, and residual waste, transforming it into valuable products that boost the income of local communities. The study employs a descriptive analytical approach to detail the roles of each stakeholder, with data gathered from field implementation and supporting literature. Results demonstrate that the pentahelix collaboration in NEKAT SA successfully mitigates waste problems, enhances community income, and fosters a culture of cleanliness and health. The program's effectiveness highlights the need for continuous commitment from all stakeholders to sustain its positive environmental and economic impact in Negeri Laha.</p>
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Introduction

The problem of plastic waste polluting the ocean is still a complicated problem that has not been resolved, especially on the coast and small islands in eastern Indonesia (Aqiela, Raharjo, & Resnawaty, 2018). The coastal area is a zone composed of dynamic ecosystems, which bring together land and marine ecosystems (Harsono, 2020). This dynamic ecosystem has a lot of biodiversity potential and also has disaster risks and environmental management that require special handling (Halibas, Sibayan, & Maata, 2017). In 2019, the Ministry of Environment and Forestry of the Republic of Indonesia through the SIPSN website stated that Indonesia entered a waste emergency, with a waste pile of 29.14 million tons which continues to experience a significant increase

until 2024. This figure is not yet the total number of waste generation in the water area, due to limited handling facilities (Putra & Raharjo, 2023).

Maluku is a province dubbed as the "Province of 1000 Islands" with Ambon as its capital. The number of islands makes Maluku a province that has a diversity of natural resources, languages, customs, and cultures. This should be able to make Maluku a rich and developed region, including in terms of environmental management and waste from public consumption. Despite having great potential for natural resources and human resources, Maluku, especially Ambon City, still experiences many obstacles in terms of waste management, especially plastic waste from seawater shipments. In 2023, the Ambon City Environment Agency released data related to the total waste pile in Ambon City which reached 246 tons per day (F Mayaut, 2024) This is one of the reasons for the lack of precise waste management from upstream to downstream.

One of the coastal areas that has the highest risk of waste generation in Ambon City is the Land of Laha with a risk of generating 200 kg of waste from community consumption and 80 kg of consignment waste every day. Until 2022, the country of Laha does not have an integrated waste management system (Agung, Juita, & Zuriyani, 2021). The emptiness of the waste management system has an impact on the habit of people throwing garbage carelessly, which pollutes the environment. This is the main background, why the Land of Laha must have a waste management system that can process all waste from public consumption and waste sent from seawater medium (Syahrudin & Putri, 2022).

Departing from the void of the waste management system in the Land of Laha, PT Pertamina Patra Niaga Aviation Fuel Terminal (AFT) Pattimura is committed to carrying out social innovations related to the integration of environmental improvement using the concept of waste management. The Innovation Program is called NEKAT SA (Country of Katong Without Waste) which means Our Country Without Waste. NEKAT SA is an innovation program that houses the big idea of 4 AFT Pattimura community development partners to create an integrated waste management system from upstream, process, to downstream stages (Harimurti et al., 2020). The innovation program of the Katong No Waste Country (NEKAT SA) can create a multi-stakeholder value chain, manage waste management activities with the concept of zero waste and apply circular economy principles. This waste management innovation can process organic, inorganic, and residual waste into valuable products and increase the income of the surrounding community (Kusumaningsari, 2019).

Based on the results of field findings in Laha Country, one of the challenges in waste management lies in the stage of changing people's habits of waste management. The community also complained that the waste sorting process from the household level was impractical and time-consuming so people became lazy. Various efforts have been made by the state government, the Bumi Lestari Maluku Waste Bank, and the CSR program carried out by PT Pertamina Patra Niaga AFT Pattimura it is still finding a steep road in overcoming the waste problem in the Land of Laha. The complexity of the

coastal waste problem in Ambon Bay, especially in the Land of Laha, requires multi-sector cooperation, which is framed in the Penta helix cooperation mechanism.

Research on the penta-helix mechanism has been widely carried out because it is seen as a collaboration method that divides the roles of each stakeholder (Soemaryani, 2016). Research on penta-helix collaboration in building social inclusion for disabilities explains that the involvement of the government, community groups, the private sector, the media, and academics in creating an inclusive social space in Solo is possible. The penta-helix method presents a different division of roles for each stakeholder, accompanied by different capacities, for the achievement of common goals (Nurhaeni, Putri, Mulyadi, & Sudiby, 2024).

This study aims to map the stakeholders involved in the implementation process of social innovation as a form of sustainable collaboration without dwarfing the role of one of the stakeholders. Based on the framework of pentahelix theory which emphasizes a clear division of tasks between stakeholders, this study also maps the tasks, functions, and roles of each stakeholder in a structured and clear manner.

Research Methods

This research was conducted to analyze the role of each stakeholder involved in the CSR Social Innovation program of PT Pertamina Patra Niaga AFT Pattimura, namely Waste Management Center: NEKAT SA using an analytical descriptive matrix on the theoretical framework of penta-helix stakeholder mapping with a qualitative approach. The research method was chosen because it was able to systematically provide the involvement of all stakeholders in the program without dwarfing the role of one of them (Creswell & Creswell, 2017).

This research focuses on the Waste Management Center: NEKAT SA program which integrates 4 AFT Pattimura CSR programs, namely PAUD Aware of the Environment, Laha State Disaster Resilient Village, and TEKAD Fish Farming Group (POKDAKAN), which is located in Laha Country, Teluk Ambon District. This program is generally fronted by the Bumi Lestari Maluku Waste Bank which has been running for the fifth year and has a significant impact on the community in the company's ring 1 area. This program cannot run without contributions from other parties, such as the state government, city governments, community groups, academics, the media, and other private involvement. The data used in the study are primary data and secondary data. Primary data is sourced from the process of program implementation in the field, while secondary data comes from literature studies and documentation that support this research.

This research is a type of qualitative research that uses analytical descriptive methods to provide a systematic description. This research is located in Laha State, Teluk Ambon District which focuses on 4 AFT Pattimura CSR Fosters, the Government, Academics from UNPATTI, and several local media involved in the implementation of the program.

This study uses a Qualitative Comparative analysis technique that combines qualitative methods with set-theoretic logic to analyze cases in small comparative studies. It is used to understand the combination of conditions that produce a particular outcome.

Results and Discussion

Waste Management Center: NEKAT SA

Waste Management Center: NEKAT SA is an umbrella program initiated by AFT Pattimura by integrating 4 community empowerment programs as an effort to manage waste in the Land of Laha. NEKAT SA is divided into 3 stages, namely the upstream stage which is mostly engaged in education and waste collection efforts, the process stage which is engaged in processing waste into useful products, and the downstream stage which focuses on the formation of a circular economy. These 3-stage integrative efforts are considered effective in solving the waste problem in the Land of Laha because each stage is carried out collaboratively and there is a clear division of tasks between each fostered partner.

Waste Management Center: NEKAT SA is fronted in general and centralized by the Maluku Bumi Lestari Waste Bank (BLM) but does not dwarf the role of other fostered partners. PAUD Aware of the Environment plays a role as a replica of the Waste Bank in the form of education in Wailawa Hamlet and plays a major role in educating the community, especially children in the golden age through the implementation of an environmentally conscious curriculum. The Laha Disaster Resilient Village plays an active role as a partner of BLM in educating the community, and an extension of disaster management, especially climate disasters in the Land of Laha, such as carrying out tree planting activities, beach cleanup actions, and food security using processed products from BLM. The Horticultural Agriculture Group and POKDAKAN TEKAD have a role in implementing zero-waste production in their business processes through the use of environmentally friendly products.

The clarity of the division of roles of each fostered partner is an effective step in overcoming the risk of piles and piles of waste in the future because each organization moves in harmony to achieve the same goal, namely to create a clean environment through the implementation of an integrated waste management system. In more detail, the Waste Management Center implementation process will be outlined as follows:

1. Upstream Stages

In the upstream process of the Waste Management Center: NEKAT SA, the waste bank serves as a source of knowledge to implement a minimum plastic life and socialize waste sorting at the household, agency, and individual levels.

2. Waste Responsibility Education

The Maluku Lestari Bumi Waste Bank and PAUD Aware of the Environment are actively socializing the people of the country regarding waste management from the individual and household levels. This socialization is routinely carried out to the community orally, through visual campaigns, roadshows to community groups, and the

implementation of the environmental awareness curriculum at PAUD Aware of the Environment. This educational process has an impact on the community so that they do not throw waste carelessly and carry out waste-saving activities at the Waste Bank which can bring material and economic benefits. At the beginning of the year of waste education implementation, the Bumi Lestari Maluku Waste Bank managed to accommodate 11 tons of waste and increased every year.

3. Implementation of environmentally conscious curriculum

One of the strategic steps taken by PAUD Aware of the Environment to realize a generation that cares about the environment is to implement the Environmental Awareness Curriculum in its educational process. This curriculum includes material on environmental concerns, individual responsibility for waste consumption from an early age, and the application of education fees from waste. PAUD Aware of the Environment, which is located in the Ring 1 area of AFT Pattimura, seeks to answer the community's needs for affordable education for early childhood education. To access education at PAUD Sadar Lingkungan, parents of students only need to pay tuition fees using waste that is deposited regularly every month. Through the implementation of an environmentally conscious curriculum and paid tuition fees for waste, in 2023 it has managed to have 60 students from the marginal economic category who have been active in environmental conservation efforts since early childhood.

4. Beach and Environmental Cleanup Action

Bank Sampah Bumi Lestari Maluku, together with CSR partner AFT Pattimura, consistently conducts periodic waste cleanup actions every month as an effort to reduce waste generation from innate currents along the coast in the land of Laha. This activity succeeded in collecting 20kg of plastic waste per action, with participants from community groups, government agencies, and business entities in the Land of Laha.

5. Waste Management Learning Center in Ambon City

Waste Management Center: NEKAT SA is the only integrated waste management system in Ambon City. The approach carried out through education to the community has made the Bumi Lestari Maluku Waste Bank several times receive visits from various educational institutions, one of which is Pattimura University, Maluku.

6. Implementation of Zero Waste Production in POKDAKAN TEKAD and Eco Entrepreneurship Education of Environmental Conscious PAUD.

As fostered partners who have production stages, POKDAKAN TEKAD and the Environmental Aware PAUD Entrepreneurial Group have committed to implementing a zero-waste production system. All production waste is collected and then processed into useful products, so as not to cause waste accumulation in the environment. Fostered partners are also committed to using environmentally friendly packaging in every product they produce.

7. Increasing waste processing capacity for group members and the community.

One of the commitments of the Waste Management Center is to help create a society that is capable and responsible for its waste production, for this reason, knowledge sharing is routinely carried out between the community and groups to

increase each other's knowledge of waste processing, because, in principle, each individual is responsible for their waste.

Process Stages

At the process stage, the Waste Bank is the main actor in managing waste that has been sorted by the community in households. The waste collection process is carried out simultaneously with the process of recycling waste into goods of economic value. Waste Management Center: NEKAT SA has succeeded in processing inorganic waste into innovative products of eco-bricks and sofas from bottles, in addition to being able to produce eco enzymes and fertilizers from processed organic waste that can be used by the people of Laha. The waste processing process also includes the process of processing used cooking oil into liquid soap, solid soap, and candles used by the people of Laha as souvenirs at events, such as weddings.

Investment in waste processing equipment to the community

AFT Pattimura found this innovation as something that has the potential to bring a lot of change in the Land of Laha. After running an integrated program for 1 year, in 2022 investments will be made in waste processing support tools, including waste press machines, Green Box Purifiers as a tool to refine used cooking oil, and shredded bicycles to help the waste shredding process so that it can be processed into eco products. The procurement of these tools has succeeded in increasing the productivity of waste processing activities carried out in the Land of Laha.

Innovation and diversification of waste bank products: Eco-enzyme, Eco-soap, and Compost.

Waste has economic value and function if it is managed properly through innovation training. BLM itself has processed organic waste such as used cooking oil, kitchen waste such as vegetables and fruits, and leaves. Through training and mentoring, vegetable and fruit waste can be used as eco-enzymes to realize the optimization of waste management in Ambon. The potential for organic waste in the Land of Laha reaches 37 thousand kilograms per month, with eco-enzyme innovations that can reduce household organic waste by 3.01% or 1,128 kilograms per month. Eco-enzyme itself has many benefits as a floor cleaner, toilet, maintenance, and health and this product provides cost efficiency of Rp 600,000 per month. In addition, the processing of used cooking oil into soap called eco-soap has the potential to reduce used cooking oil by 5.6% per month or around 112 litres of used cooking oil. Then leaf waste and dry grass into compost that can be used to increase the fertility of community plants.

Processing plastic waste into Ecobricks and Botik.

The Maluku Bumi Lestari Waste Bank together with PAUD Aware of the Environment also carried out processing activities on plastic waste into products of economic value. BLM Waste Bank has a superior product Botik (Plastic Bottle Sofa). Meanwhile, PAUD Sadar Lingkungan has superior products made from ecobricks, namely Softbrick (Ecobrick Sofa), and Rack-Brick which has resulted in an economic turnaround and can process plastic waste weighing 62 kg for 1 set of ecobrick sofas.

Downstream Stages

At the downstream stage, the Waste Management Center mechanism: NEKAT SA collaborates with several waste processing industries for waste delivery so that it can be exchanged for a competitive value. In addition, in the downstream process, there is a business expansion of waste recycling products from BLM that can be marketed in the Ambon City area.

Waste Business Expansion

Since 2021, AFT Pattimura has successfully assisted the group in carrying out activities to transport and sell inorganic waste to waste recycling industrial factories in the city of Surabaya because there is no waste recycling factory in Ambon. The goal is that waste such as plastic bottles, cardboard, and paper is not only piled up in landfills but can be recycled by factories and has a high selling value. There have been four times of waste transportation with a total volume of 26,434 kilograms of reduced waste from September 2021 to May 2023. The profit obtained by BLM reached 70 million rupiahs and was able to increase the income of the management and customers.

Participating in Exhibitions Held by Government Agencies

This is a marketing strategy carried out by the BLM Waste Bank to introduce eco products to the people of Ambon City by participating in several exhibitions and bazaars carried out by the government. This activity succeeded in attracting several buyers and potential buyers so there was a purchase of 20 litres of eco enzyme that would be used for plant fertilizer in the yard of the consumer's office. In addition, another marketing strategy carried out is to collaborate with the Maluku Typical Souvenir Center to expand the market share of products. The use of compost and eco-enzyme fertilizer products for agriculture in the Land of Laha.

Farmer groups in Laha since 2022 who have joined as customers of the Bumi Lestari Maluku Waste Bank have used compost as one of the sources of agricultural nutrition, and used eco-enzyme as a pest remedy that attacks their gardens.

Implementation of NEKAT SA Waste Management Center: Upstream, Process, and Downstream stages go hand in hand and form a value chain as follows:



Figure 2 Waste Management Center Value Rantai Nilai: SA

Penta-Helix Analysis in Waste Management Center Implementation: NEKAT SA

Based on the results of the research, it is known that the Waste Management Center: NEKAT SA innovation program involves many stakeholders because the waste problem is a complicated problem that involves many parties. In this section, the researcher has mapped all actors involved in the social innovation program: Waste Management Center: NEKAT SA which has been implemented since 2022 in Laha State, Ambon City.

Table 1

Category	Name of Agency	Role	Activity Implementation
Business	PT Pertamina Patra Niaga Aviation Fuel Terminal (AFT) Pattimura	Assisting the community in the form of CSR assistance on an ongoing basis.	<ol style="list-style-type: none"> 1. Initiator of social innovation Waste Management Center: NEKAT SA 2. Assisting community groups that are members of the Waste Management Center: NEKAT SA 3. Investing in infrastructure, capacity, and materials. 4. Conduct routine monitoring and evaluation related to the implementation of the program.

	PT Million Limbah Ambon (MLA).	Purchase of waste to the Bumi Lestari Maluku Waste Bank		<ul style="list-style-type: none"> ● Regular waste purchases collected from the Waste Management Center program: NEKAT SA.
Government	Laha State Government	Policymakers and evaluators in the Waste Management Center program: NEKAT SA		<ol style="list-style-type: none"> 1. Household fee policymakers in garbage pick-up activities in people's homes <ul style="list-style-type: none"> ● Monitoring and evaluation of programs
	Ambon City Environment and Waste Agency			<p>Collaboration related to the waste collection at TPS Negeri Laha</p> <ul style="list-style-type: none"> ● Monitoring and evaluation of program implementation
	Maluku Provincial Environmental Agency			<ul style="list-style-type: none"> ● Resource persons in waste processing capacity-building activities.
Community	Bumi Lestari Maluku Waste Bank	PT Pertamina's CSR fostered partners of Patra Niaga AFT Pattimura and field implementer of the Waste Management Center program: NEKAT SA	<ol style="list-style-type: none"> 1. Management socialization waste to the people of Laha 2. Picking up sorted waste and residues in people's homes 3. Implementation of the waste tube system is a benefit 4. Processing used cooking oil into wax, soap and other ecoproducts. 5. Eco-enzyme production from fruit peel waste 	
	Early Childhood		1.	Implementation of

	Education is Environmentally Aware		<ol style="list-style-type: none"> 1. the first environmental education curriculum in Indonesia 2. Implementation of waste-paid tuition fees 3. Production of eco-bricks and their derivative innovation products. 4. Environment-based social entrepreneurship.
	Disaster Resilient Village in Laha		<ol style="list-style-type: none"> 1. Resilience focused on climate change disasters 2. Food security 3. Actively clean the beach 4. Reforestation and reforestation
	Rising Farmer Group		<ol style="list-style-type: none"> 1. Implementasi Sustainability Farming 2. Treating self-compost 3. Agriculture does not use chemical fertilizers.
Academy	Pattimura University, Ambon	Consultation on ideas and knowledge sharing on Waste Management Center management: NEKAT SA	<ol style="list-style-type: none"> 1. Capacity building training resource persons 2. Research collaboration 3. A visit from a group of students to the Waste Management Center: NEKAT SA
	IAIN Ambon		<ol style="list-style-type: none"> 1. Resource persons in the

			implementation of entrepreneurship and financial bookkeeping
			2. Research cooperation and student and lecturer visits.
	Maluku Christian University		<ul style="list-style-type: none"> ● Research cooperation and student and lecturer visits.
Media	Ambon Tribune	Dissemination of information about the implementation of Waste Management Center: SA is desperate for the general public.	<ul style="list-style-type: none"> ● Publication of information on Waste Management Center activities: NEKAT SA
	Official account PT Pertamina Patra Niaga Regional Papua Maluku		<ul style="list-style-type: none"> ● Publication of information on waste management centre activities from the internal party of PT Pertamina Patra Niaga MOR VIII

Based on the table that has been described above, all actors have their functions and roles according to their abilities. PT Pertamina Patra Niaga AFT Pattimura through the CSR program to help community groups is the initiator of the Waste Management Center innovation program: NEKAT SA. This program comes after conducting a professional assessment together with consultants and academics through a social mapping study in 2022 which shows the existence of environmental problems, community habits of waste management, and the economy in the Land of Laha. Referring to the social mapping document, one of the recommended programs is the implementation of the Waste Bank which has been carried out since 2018. This assistance has been carried out integratively with all fostered partners since 2023 under the umbrella name of the Waste Management Center program: NEKAT SA.

The implementation of this program has experienced significant ups and downs, initially, the community was not interested in changing to a more environmentally friendly lifestyle, because it requires a lot of effort to new habits and economic pressure that makes people not see environmental issues as an important problem. The habit of people throwing garbage on the beach did not completely disappear until 2024, but it has been greatly reduced due to the existence of a garbage tube mechanism and a procession to pick up garbage from people's homes by the Bumi Lestari Maluku Waste

Bank. Another problem arises because the community is charged a fee of Rp.2000 per week for the waste collection process, so the Bumi Lestari Maluku Waste Bank only relies on program operational money, which is finally circumvented by the State Government through a State Regulation that binds the community to pay fees regularly to protect the environment. Fees can be in the form of money, and waste savings at the Bumi Lestari Maluku Waste Bank.

Another problem that arises is the pile of garbage in the temporary landfill of Laha because the process of picking up garbage by the Environment Agency takes a long time. After all, the distance between Laha and the city centre and the landfill of Ambon Island is almost 25 km. This can be resolved with a joint agreement between the Laha State Government and the Ambon City Environment and Waste Agency which picks up every 2 days. At the community level, this pile has been minimized by sorting waste, so that not all waste is put into the TPS, some are saved in the Waste Bank, processed into compost, and eco-enzymes, and only residual waste is sent to the TPS. This has proven to be effective in reducing waste accumulation by 40% and easing the work of the Ambon City Government in waste management. The implementation of a plastic-conscious culture also affects people's habits that have begun to reduce the repetition of single-use plastic wrap.

Waste Management Center Program: NEKAT SA is a social innovation program by PT Pertamina Patra Niaga AFT Pattimura as a form of responsibility and concern for the community in the ring 1 area of the company's operations. This program, of course, cannot be implemented without multi-stakeholder cooperation that runs in harmony and dynamics. This collaboration is expected to be sustainable and continuously developed to realize a Laha country free of waste piles, both on land and in sea areas.

Impact and Social Change of the Implementation of the PentaHelix Collaboration Waste Management Center Program: NEKAT SA in the Land of Laha

Implementation of Waste Management Center: NEKAT SA has had a significant impact on solving environmental problems in the Land of Laha. In 2023, the Bumi Lestari Maluku Waste Bank managed to collect 11 tons of plastic waste which was then processed into products of economic value, and sent to industries that were able to provide decent income for the management and the surrounding community. More absolutely, the impact measurement of the Waste Management Center Social Investment is carried out through SROI calculations and descriptions based on the Sustainability Compass. In terms of the environment, the program has succeeded in managing 62 tons of waste in the country of Laha since its implementation. In the welfare aspect, it has empowered 20 people in the country to get jobs and empowered 10 women in its implementation, with incomes above the Ambon City UMP. In the social aspect, it has succeeded in empowering all people of Air Manis Hamlet, the land of laha to care more about the environment through participation in programs and the development of social capital and community cohesiveness in the implementation of activities.

The investment value of the program is also measured using the Social Return on Investment (SROI) instrument. The Waste Management Center Program: NEKAT SA, has an SROI value of 3.89 which means that every investment of 1 rupiah in fish cultivation and processing programs can provide benefits to beneficiaries of 3.89 rupiah. This result is in line with the program's objectives, namely to increase community income through the communal waste management industry by prioritizing the principles of environmental improvement and conservation. In general, during the three years of program intervention (2021-2023), AFT Pattimura has made a positive contribution to the people of Laha, especially the residents of Air Manis Hamlet. The benefits of the Bumi Lestari Maluku program can be felt by waste bank administrators and customers as well as stakeholders involved, both in terms of increasing economic income (from the sale of non-organic waste), processing waste recycling derivative products, as well as increasing knowledge such as environmental management education, as well as a clean and healthy living culture. This value has gone through an impact fixation procession that considers the existence of a definition of impact value due to cooperation between agencies, by the pentahelix collaboration analysis.

Conclusion

In conclusion, the NEKAT SA (Negeri Katong Tanpa Sampah) program, spearheaded by PT Pertamina Patra Niaga Aviation Fuel Terminal Pattimura, represents a robust model of social innovation designed to address significant environmental issues related to waste management in Negeri Laha. Utilizing the Penta-Helix collaboration framework, the program effectively integrates the contributions of corporate actors, civil society, government, media, and academic institutions. This multi-stakeholder approach has proven effective in mitigating environmental degradation, enhancing community welfare, and fostering socio-economic benefits. The program underscores the importance of well-defined roles and responsibilities for each stakeholder, ensuring a coordinated and sustained effort to address complex environmental challenges. Furthermore, the study's examination of the Redesign of the Planning and Budgeting System (RSPP) reveals persistent challenges in aligning program nomenclature, activities, and output classifications with RSPP principles. The Central Statistics Agency (BPS) illustrates these challenges due to its unique role as a national data provider, which complicates the alignment of technical Key Result Outputs (KROs) with its specialized functions. Despite these difficulties, BPS's ongoing efforts to refine its planning and budgeting processes in accordance with updated guidelines are commendable. The findings emphasize the necessity of periodic evaluations and sustained stakeholder engagement for both the NEKAT SA program and the RSPP initiative. Such evaluations are crucial for identifying and addressing emerging issues, thereby enhancing the effectiveness and adaptability of public sector programs. This comprehensive approach is essential for achieving improved environmental, economic, and governance outcomes, thereby contributing to the overall effectiveness and resilience of social innovation efforts.

The implementation of the Redesign of the Planning and Budgeting System at the Central Statistics Agency has not been fully by the principles of the RSPP. However, BPS always strives to improve the structure of the RSPP in the process of preparing planning and budgeting documents. In addition, the duties and functions of BPS as a data provider are unique so it is difficult to determine the technical KRO by the specifics of BPS. In the preparation of the RSPP, BPS strives to continue to improve by the guidelines that have been set and updated every year to accommodate the types of KRO that do not yet exist.

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