

## Towards a Healthier Boyolali Community: The Social Return on Investment (SROI) on the Family Care Health Optimization Service Program (Yok Peka)



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**ABSTRACT:** PT Pertamina Patra Niaga Fuel Terminal (FT) Boyolali, commonly referred to as FT Boyolali, is a fuel terminal that is part of the leading lubricant company in Indonesia, namely PT Pertamina Lubricants. FT Boyolali has several Corporate Social Innovation (CSI) programs spread across the company's closest area, including Teras District, in Boyolali Regency. The program entitled Yok Peka is a form of Social Innovation carried out by FT Boyolali to address social problems to prevent and deal with health cases in pregnant women and toddlers in Boyolali Regency, especially cases of stunting and cases of Chronic Energy Deficiency (CED) pregnant women. Apart from that, this program also supports the formation of economic empowerment of health cadres and the community to balance health standards with improving the community's economy. The effectiveness of the CSI Yok Peka program is measured using the social return on investment (SROI) method to determine the output and outcomes felt by various stakeholders and also to determine the comparison (ratio) between investment and benefits quantitatively. SROI is a method companies can use to measure the return on business investment for a program or social activity carried out using a financial quantification (monetization) calculation approach. The results of the SROI analysis of the Yok Peka program in the period 2020 to 2022 show a benefit value of IDR 635.799.963 compared to an investment value of IDR 165.650,000. In other words, every investment of IDR 1 in the Yok Peka program can produce benefits of IDR 3.84 (SROI = 1: 3.84).

**KEYWORDS:** Yok Peka, Chronic Energy Deficiency (CED), Social Return on Investment (SROI), Corporate Social Responsibility (CSR), Corporate Social Innovation (CSI).

### INTRODUCTION

Corporate Social Responsibility (CSR) is a form of corporate responsibility towards consumers, communities, employees, shareholders, and the environment affected by the company's operations. The implementation of CSR is the response of the business world when it sees environmental and social aspects as an opportunity to increase competitiveness and as part of risk management toward the sustainability of its business activities (Cahya, 2014). In particular, for companies engaged in and related to natural resources, it is obligatory to carry out corporate social and environmental responsibility. Furthermore, as regulated in the Regulation of the Minister of Environment and Forestry No. 1 of 2021 concerning the Corporate Rating Assessment Program (Proper), each company participating in Proper beyond compliance must choose one Community development program (Comdev) that is proposed as a flagship program that meets the criteria of social innovation.

PT Pertamina Patra Niaga Fuel Terminal (FT) Boyolali or commonly referred to as FT Boyolali is a fuel terminal that is a part of PT Pertamina Patra Niaga Central Java Region, Indonesia. FT Boyolali has several CSR programs spread across various areas which are included in the company's closest area, including Teras District, Boyolali Regency. The Yok Peka Program is a form of Social Innovation organized by FT Boyolali in order to address existing social problems, including prevent and deal with health cases in pregnant women and toddlers in Boyolali Regency, especially cases of stunting and pregnant women with Chronic Energy Deficiency (CED). In addition, the program also supports the creation of economic empowerment of village health worker (cadre) and the community in order to balance the level of health with an increase in the community's economy.

Furthermore, to measure the success of the Yok Peka Program, it is necessary to have a method to quantify the impact of the program. The effectiveness of corporate social innovation (CSI) can be measured by the Social Return On Investment (SROI) method, to determine the outputs and outcomes perceived by various stakeholders and also to know the comparison (ratio)

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between investment and benefits. According to Santoso et al., (2018), SROI is a method that can be used by companies to measure returns on business investment for a program or social activity with a financial quantification (monetization) calculation approach. In contrast to conventional investment measurement tools that only focus on calculating financial aspects, SROI includes broad concept measurements, including social, environmental and economic values.

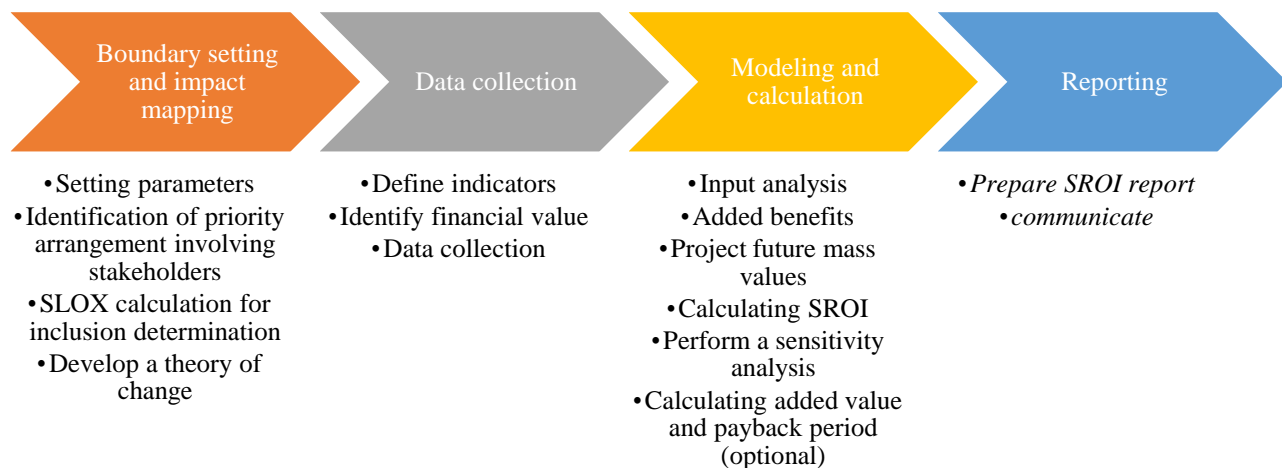
In this study, SROI was used as a method to quantify Yok Peka's CSR program using an evaluative method by measuring the resulting impact. Data collection was obtained through in-depth interviews with Integrated Healthcare Center (Posyandu) members, Hatra Makmur Group, Sampetan village government, beneficiary communities, and Community Development Officers of FT Boyolali. The SROI study will be carried out in 3<sup>rd</sup> ring (closest) areas, namely in areas that need corporate social responsibility assistance to address existing social problems.

### THEORITICAL FRAMEWORK

Social Return on Investment (SROI) is a process of understanding, measuring, and reporting related to social, environmental, and economic value created by organizations. SROI is a measurement approach developed from a cost-benefit analysis, social accounting, and social auditing that captures social value by translating social objectives into financial and non-financial measures (Lawlor et al., 2008). Meanwhile, according to Nicholls et al., (2009), SROI is a framework for measuring and calculating a much broader concept of value including reducing inequality among stakeholders, environmental degradation, and increasing welfare by combining social, environmental, and economic benefits. The SROI ratio is between the value generated and the investment required to achieve an impact.

Moreover, the SROI approach has advantages over other approaches, including comprehensive approach that includes social, economic, and environmental aspects (triple bottom line), accountability, change management, cost and time effectiveness, as well as simple and clear indicators through ratio results (Lawlor et al., 2008). In addition, applying the SROI method in measuring social impact is very feasible and low-cost if the organization already has the desired cost, income, and outcome data (Budiono, 2012).

Chart I: Stages of SROI Analysis



The concept of SROI was developed in England in 2008 with seven principles to create a framework, namely: (1) Stakeholder involvement, (2) Understanding of change, (3) Assessment of important things, (4) Focus on clear material inputs, (5) No excessive claims, (6) Transparency, (7) Verify results (Nicholls et al., 2009). Subsequently, SROI has a strategic advantage, including the involvement of stakeholders in measuring the impact of a program or project run by the company. Through the involvement of these stakeholders, SROI can provide measurement and analysis results that are far more comprehensive and feasible when compared to conventional investment measuring tools such as cost-benefit and incremental ratios (Purwohedi, 2016). Furthermore, according to Nicholls et al., (2009), the SROI analysis has six stages, namely 1) Defining the scope and identifying key stakeholders, 2) Mapping impacts, 3) Proving and assessing impacts, 4) Building impacts, 5) Calculating SROI, 6) Reporting and Implementation.

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## **METHODS**

### **Establish Scope and Identify Stakeholders**

At this stage, it is important to have clear boundaries about the scope of the SROI analysis, who will be involved in the process and in what form the involvement will take place. The term "Stakeholder" does need to be explained, even though it is currently used as a matter of course. Who or what the stakeholders are, how they can be identified and why a stakeholder analysis is a core component of any impact measurement. There are several sub-stages, including:

- a. Establishing the basic logic of a project or program within the framework of a theory of change to understand the essential cause-and-effect relationships of an intervention.
- b. Grouping stakeholders into categories and subgroups that tend to have the same perspective.
- c. Placing all stakeholders, together with a preliminary assessment of how they affect or are affected by the program, including positive and negative effects

### **Performing SLOX Calculations for Determining Inclusion Criteria**

On this study, the data analysis technique refers to measuring the level of social acceptance of stakeholders towards company activities that are related to the company's core business and also the company's CSR. In this study, data analysis techniques used the Social License to Operate Index (SLOX) model proposed by Boutilier and Thomson (2011). In their model, Boutilier and Thompson measure the level of social acceptance of stakeholders towards company activities.

The SLOX in question is based on a number of questions that measure the company's social license level from four variables, namely:

1. Economic Legitimacy
2. Socio Political-Legitimacy
3. Interactional Trust
4. Institutionalized Trust

The SLOX research has 15 statements to measure the SLOX level of each stakeholder with the following assessment categories:

- a. the answer "Strongly agree" is given a weight value of 5
- b. the answer "Agree" is given a weight value of 4
- c. the answer "Neutral" is given a weight value of 3
- d. the answer "Disagree" is given a weight value of 2
- e. the answer "Disagree" is given a weight value of 1

### **Mapping the Outcomes of Each Stakeholder**

In this section, we discuss how the activities will be analyzed using certain inputs that will produce outcomes for stakeholders. Basically, this section maps the relationship between input, output, and outcome (theory of change or logic model). There are five stages that will be carried out in this section, namely:

- a. Start impact mapping
- b. Identify inputs
- c. Perform an assessment of the input
- d. Clarifying output
- e. Describe the outcomes

### **Establish Indicators and Values for Each Outcome**

Indicators are a way to tell if a change has occurred. Indicators are applied to each outcome before moving on to the next stage, namely developing an impact map by explaining one or more indicators for each outcome. After having indicators that are relevant to stakeholders and scope, it is necessary to examine these indicators so that they are not only measurable but can be measured within the scope and resources that have been determined. There are four stages in this section, namely:

- a. Developing outcome indicators
- b. Collect outcome data
- c. Determines how long the outcome will last
- d. Assign a value to each outcome

### **Impact Fixation**

This stage is important to reduce the risk of overclaiming the outcome. There are four sections that must be taken, including:

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### a. Deadweight and displacements

Deadweight is a measure of the number of results that will occur even if the activity does not occur. It is calculated as a percentage.

### b. Attribution

Attribution is a judgment about how much of a result is due to the contribution of the organization or other people. Attribution is calculated as a percentage (i.e. the proportion of results attributable to the organization). It indicates the part of the deadweight where we have better information and where we can relate the results to other people or organizations.

### c. Drop off

After the previous stage considers how long the outcomes last. In the coming years, the number of outcomes is likely to be less or, if they are the same, more likely to be influenced by other factors, resulting in lower attribution to the organization. Drop-offs are used to account for this and are only calculated for results lasting more than one year. Drop-offs are usually calculated by subtracting a fixed percentage from the level of outcomes remaining at the end of each year.

### d. Calculating impacts

All of these aspects of impact are usually expressed as a percentage. Except when having more accurate information, it is acceptable to round estimates to the nearest 10%. In some cases, there may be an assumption that there is an increase in value rather than a decrease. However, it is not recommended to increase the impact as a result of considering an issue. In this situation, neither would make a deduction.

## Calculating SROI

There are four stages (plus one optional stage) to calculate SROI, including:

### a. Projecting it to a future value

The first step in calculating the ratio is to project the value of all the results achieved in the future. In the previous step, had to decide how long the result would be.

### b. Calculating net present value

To calculate the NPV costs and benefits paid or received in different time periods need to be added up. For this reason, the costs and benefits are proportional to the discount process. The principle of discounting or discounting generally favors receiving money today rather than tomorrow because of the risk (e.g. the money will not be paid) because of the opportunity cost (e.g. the potential return from investing the money elsewhere). This principle is known as "time value of money".

### c. Calculating ratios

The calculation of the initial SROI ratio is done by dividing the benefit discount value by the total investment.

$$SROI\ ratio = \frac{Present\ Value}{Value\ of\ inputs}$$

Alternative calculation of net SROI ratio. This is done by dividing the NPV value by the investment value. Both are acceptable but depending on the needs of the analysis used:

$$Net\ SROI\ ratio = \frac{Net\ Present\ Value}{Value\ of\ inputs}$$

### d. Perform a sensitivity analysis

The purpose of the analysis is to test which assumptions have the greatest influence on the model calculations performed. The suggested approach is to calculate how much we need to change each estimate for social returns to a social return ratio of IDR 1 for an investment of IDR 1. With this calculation the sensitivity analysis carried out to changes in estimates can be shown. This makes it possible to report the amount of change required to change a ratio from positive to negative or vice versa.

### e. Calculating the payback period (operational stage)

The 'payback period' describes how long it takes for the investment to pay off. The basic formula for calculating the payback period:

$$Payback\ Period\ in\ Months = \frac{Investment}{Annual\ impact/12}$$

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### **Reporting SROI**

#### **a. Reporting to Stakeholders**

SROI aims to create accountability to stakeholders. Therefore, it is important that the results of the analysis are communicated to stakeholders in an appropriate manner. By conducting this SROI study, that the community empowerment activities can be accessed by stakeholders.

#### **b. Using the Results**

The results of the SROI study will serve as an evaluation for the Company, activity implementers, and the beneficiaries of the program. In addition, through SROI, predictive studies can also be executed to test how feasible a program proposal is to be implemented. This is important so that it can be ensured that each program can be ascertained in as much detail as possible the potential success and benefits of the program.

#### **c. Changes following the SROI Evaluation Analysis**

Evaluation of SROI analysis is also expected to produce changes in the organization. Both at the corporate, executive, and community levels. The organization needs to respond to the findings and think about the implications for organizational goals, governance, systems and work practices of the organization to act on the recommendations and the findings are incorporated into the strategy in the planning process so that it gets better in the future.

#### **d. Assurance**

Assurance is a process by which information in reports is verified. This report has gone through a verification process by independent academics who have knowledge and experience in SROI-based research.

### **Theory of Change**

Theory of Change is a detailed description of the sequence of events that produces change for a large number of people in a stakeholder group. The diagrams in this section identify the theory of change for the Yok Peka program. This diagram was developed through the results of field research, FGDs with stakeholders, especially parties: companies, activity implementers, communities, and village government. Apart from that, the Yok Peka program's theory of change is also refined with secondary sources, documentation, activity reports, and activity implementation reports.

The use of the theory of change is important to avoid excessive claims and overvaluation. On the other hand, in order to avoid double counting, it is the long-term end result that is assessed as the impact of a program. This is because although all steps are important to achieve the overall outcome, the end result of the theory of change holds the greatest value to stakeholders and depends on the other steps in the process being achieved.

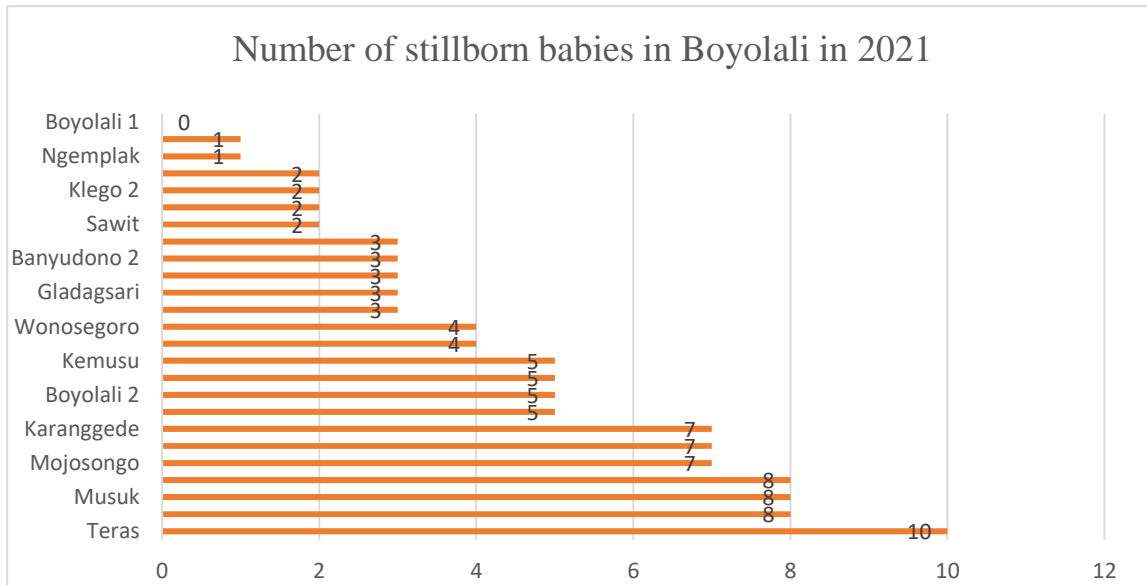
## **RESULTS AND DISCUSSION**

### **Program Profiles**

The Yok Peka program is one of the CSR innovation programs from the Boyolali Fuel Terminal (FT) located in Boyolali Regency. This program is the answer to community problems in a number of community empowerment areas from PT. Pertamina Patra Niaga FT Boyolali especially in the health sector. In the midst of the COVID-19 Pandemic in 2020, public health conditions in a number of villages in Boyolali experienced problems. Among these health problems are Posyandu activities in preventing stunting under-fives and cases of Chronic Energy Deficiency Pregnant Women (CED) cannot be carried out. This is due to the existence of the COVID-19 Pandemic which has resulted in very limited community activities.

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**Chart 1 Number of Stillborn Babies in Boyolali in 2021**

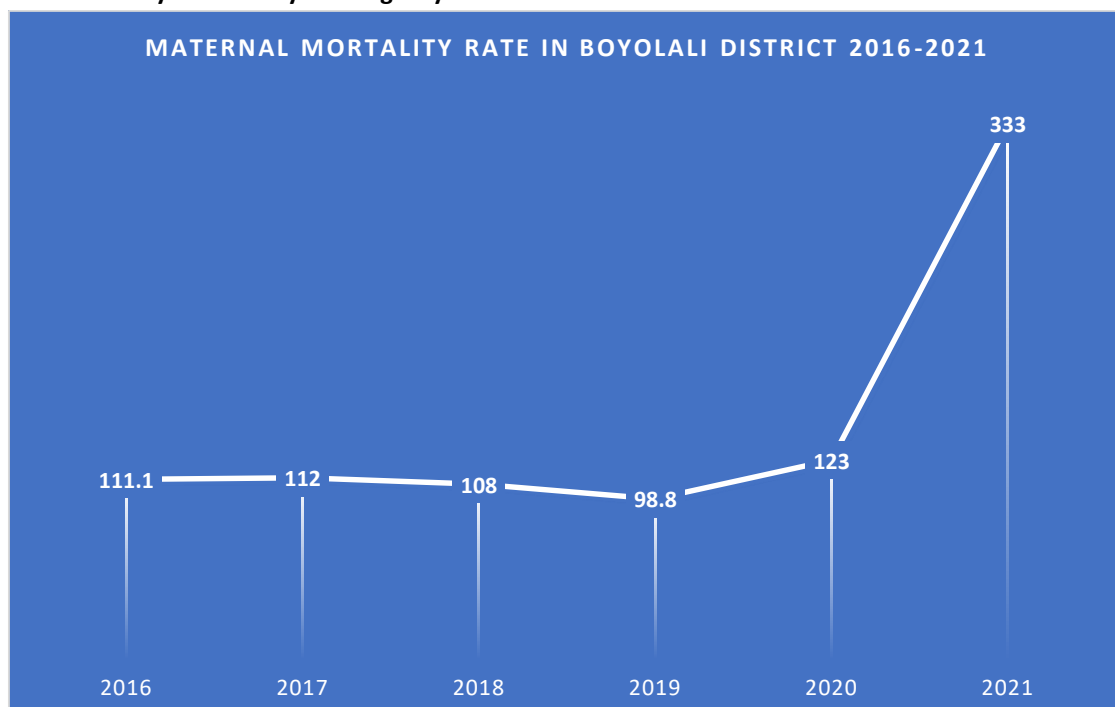


**Source: Boyolali Health Service 2021**

On the other hand, the problem of stunting and also pregnant women with CED has become a social problem in Boyolali, especially in a number of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Ring areas of the company. Based on data released by the Boyolali District Health Office in 2021, it shows that there have been a number of cases of stillbirths in Boyolali. For 2021, the stillbirth rate in Boyolali is 7.9 / 1,000. meaning that in every 1,000 population there is an average of 7.9 stillbirths. In terms of numbers, there will be 108 stillbirths in total. The highest cases are in the Ring 1 area of PT. Pertamina FT Boyolali, namely Teras subdistrict. In 2021, there were 10 cases of stillbirth in Teras (Boyolali Health Office, 2021).

However, in terms of the maternal mortality rate in Boyolali, in 2021 it is found to be 333/100,000 with a total number of cases of maternal death of 45 people. This figure is higher than the maximum limit of maternal deaths, which is 19 cases, and when compared to cases of maternal deaths in 2020, there has been a sharp increase. In 2020 the number of cases of maternal death is only 17 cases (Boyolali Health Office 2021).

**Chart 2 Maternal Mortality Rate in Boyolali Regency 2016-2021**



**Source: Boyolali Health Service 2021**

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### **Details of Yok Peka Program**

#### **Provision of Supplementary Food (PMT) and Desyandu (Delivery Integrated Service Post)**

The Supplementary Feeding Program (PMT) for Toddlers and the Elderly is generally a program that is commonly found in villages or sub-districts. Every month, people, especially toddlers or the elderly, are given additional nutritious food in packaged forms, such as fruit juice drinks, porridge, pudding or biscuits. However, since the onset of the COVID-19 Pandemic, Posyandu activities have experienced a number of obstacles and have stopped. PT. Pertamina Patra Niaga FT. Boyolali provides assistance with Toddler and Elderly Supplemental Food, COVID-19 Health protocol equipment, and Health measuring devices, so that this program continues every month. This activity was carried out in a number of areas around Boyolali, including Teras subdistrict and Sampetan Village.

Desyandu (Delivery Integrated Service Post) is an innovation that has never been implemented in Boyolali. This innovation changed the posyandu implementation system. In general, Posyandu activities are centered in one location that is easily accessible by the community. Posyandu participants then routinely visit the location to get services, while Desyandu is the other way around. Posyandu cadres visited the homes of the participants, both toddlers and pregnant women, to provide services.

In Sampetan Village, the provision of PMT through Desyandu is organized to ensure that the community, especially pregnant women, toddlers, the elderly, and adolescents, get additional nutritious food every month and monitor health growth. This is conducted in order to prevent stunting and also malnutrition, especially among vulnerable people. Initially this program was implemented in the Teras subdistrict area and then replicated in a number of locations, especially in Sampetan Village that there were 41 pregnant women, 482 toddlers, and 180 elders. Moreover, the PMT program is carried out to prevent people from getting chronic diseases, besides that PMT is useful to ensure that people eat nutritious food at least once every month or twelve times a year. Even when pregnant women or toddlers get poor examination results, they are immediately given intervention in the healthy food delivery program for 1 full month.

#### **Si-Kembang application**

To support the effectiveness of posyandu program, CSR FT Boyolali created the Growth and Development Information System or Si-Kembang. So far, the process of recording the results of monitoring the growth and development of toddlers is conducted manually using a book. This is very inefficient and risks data loss. The working principle of Si-Kembang is as an information system that contains data on the results of posyandu activities. Data input by health cadres when carrying out posyandu activities will be calculated automatically and display the results in the form of nutritional status. This calculation is in accordance with the Anthropometric Standards for Children in the Decree of the Minister of Health Number 1995/Menkes/SK/XII/2010 concerning Anthropometric Standards for Assessment of Children's Nutritional Status.

Other features available in Si-kembang include educational content about child health and development, as well as other information such as nutrition calculators, immunization schedules, a list of the nearest midwives and health facilities. The nutritional calculator is a feature to find out the nutritional status of toddlers, so parents can monitor their child's growth and development independently. Si Kembang is a website-based application that can be accessed by anyone, including residents in 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> Ring of company areas.

#### **Addition of Posyandu Health Equipment**

Apart from developing Desyandu and Si-Kembang application, PT. Pertamina Patra Niaga FT Boyolali also carried out additional Health Equipment activities for Health and Posyandu cadres. This program is a stimulant program that aims to make services at each posyandu better with more complete equipment. The provision of medical device assistance is carried out in stages and adapts to the needs of the Posyandu.

The medical equipment available at each posyandu in Sampetan village is limited. Therefore, the renewal of medical devices at the Posyandu, has increased the level of community participation in bringing toddlers and their babies to the Posyandu. The upgrading of medical devices made children feel curious and comfortable when carrying out examinations at the Posyandu. Moreover, the number of people in participating in Posyandu has increased significantly.

#### **Emergency Car Modification**

One of the CSR programs implemented by PT Pertamina Fuel Terminal Boyolali is Emergency Car Modification. The Emergency Car Modification is a program in changing or adding facilities to the emergency car that owned by the village. Before being modified, the Village Emergency Car was only used to transport corpse by reporting to the village. Therefore, the Emergency Car was then added with medical equipment such as oxygen cylinders and other medical devices that are commonly placed in ambulances so that they meet standards for use in emergencies.



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Moreover, PT Pertamina Patra Niaga FT Boyolali also helped find workshops that were capable of modifying or adding equipment to the cars that the village already owned so that they were up to standard to be used as an ambulance that could be used during emergencies. Moreover, the car can also be used as a means of transportation to take patients in case of an emergency, for example from the Village Health Post to the Health Center or also from residents' homes directly to the nearest hospital.

### Traditional Herbal Medicine Training (Ginger Jamu Making Training)

The Pertamina SEHATI: YOK PEKA program consists of many types of assistance, the MSME Traditional Herbal Medicine Training for Health Cadres is one of them. It is a training program for posyandu health cadres in Sampetan village to be able to make herbal medicine from ginger as an alternative to maintaining health. With the MSME Traditional Herbal Medicine Training program for Health Cadres, it will create new MSMEs that can move on their own and can ease the financial burden on their health cadres, so that they can provide better service when running health programs.

### Satellite Posyandu

Sampetan village is a village located on the slopes of Mount Merbabu, and because of its geographical conditions, many places in Sampetan village are classified as "blank spots" or places where cellular telecommunications networks are unreachable. Under normal conditions, this is not too dangerous, but when combined with an emergency situation such as a health or safety problem, this can become very dangerous.

In addition, with the extreme topographical conditions, health access activities are often disrupted. In terms of health check-up activities, both at the Posyandu and at the Puskesmas (Public health center) for toddlers, the elderly, adolescents, and also pregnant women, there are still several hamlets experiencing difficulties. Desyandu's activities covering such a wide area were also considered very burdensome. Therefore, PT. Pertamina Patra Niaga FT Boyolali then held a Satellite Posyandu program. This activity consists of two sub-activities. The first is the activity of Provision of Security and Emergency Communication Facilities in the form of communication satellites. Second, is the Satellite Posyandu in Sampetan village.

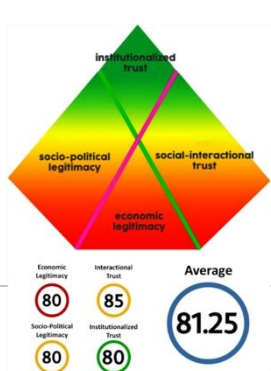
Prior to the installation of this new communication satellite, the village security guard (linmas) in charge of maintaining security in the village used an Handy talkie (HT) as a communication tool. However, without a communication satellite that functions as a transmitter, this tool was only able to connect HT between linmas officers with a radius of 3 sub-villages. Since the existence of this communication satellite, almost the entire village of Sampetan has entered the range of communication devices, including areas that are closer to Mount Merbabu, such as Ganduman and Baturejo Villages.

### Identification of Stakeholders

#### Beneficiary Inclusion List

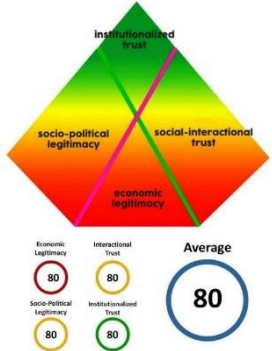
Stakeholders have different levels of receiving benefits and engaging in Comdev activities. Beneficiaries who have measurable and significant monetization will be used as input in the SROI calculation. Conversely, beneficiaries who do not have significant monetization value are not included in the calculation. In addition to using monetization value indicators, the inclusion criteria in this SROI calculation use the involvement parameters in social engagement measurements and the SLOX value.

**Table 2. Stakeholders involved**

No	Stakeholders	Reasons for Involvement	Typical SLOX (Sample)
1	Teras Desyandu Cadres, Sampetan Health Cadres, and Sampetan & Seboto Desyandu Cadres	The benefits received have a measurable and significant monetization value (in terms of knowledge, social roles, skills, economy, etc.) In the social engagement assessment, it has an average acceptance score (SLOX) of more than or equal to 81.25	



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2	Pregnant women, toddlers, elderly	The benefits received have a measurable and significant monetization value (in terms of health improvement) In the social engagement assessment, have an average acceptance score (SLOX) of more than or equal to 80	
3	Community Development Officer (CDO)	The benefits received have a measurable and significant monetization value (in terms of income, achievement of key performance indicators (KPI), and work portfolio)	
4	The general public who use the Si-Kembang application and also the village Government	The benefits received have a measurable and significant monetization value (in terms of utilization of Application buildings, Emergency Car, and Communication Satellites for disaster response and health)	

### Calculation of Input Value, and Expected Changes

The Yok Peka Program is an effort to empower the community in the health sector so that people can avoid the problem of stunting, stillbirth, pregnant women with Chronic Lack of Energy conditions or even the death of pregnant women. Some of the activities carried out in the Yok Peka Program consist of: Providing PMT, Desyandu, making the Si-Kembang application, adding Posyandu health equipment, modifying Emergency car, training on innovations in making powdered ginger herbs, and satellite posyandu. Based on the activities, inputs to stakeholders analyzed in this SROI are:

Stakeholders	Number of Individuals (Total)	Program	Cost	Change Targets
Teras Desyandu Health cadre	60	PMT Assistance (Providing Supplemental Food) for Toddlers and Pregnant Women (2020)	IDR 5,550,000 (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	There are health Cadres who are enthusiastic and have good social status in the community to organized Delivery Posyandu.
		Assistance in making the Si-Kembang Toddler Posyandu Health Registration Application (2020)	IDR 21,000,000 (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
		Health equipment assistance for Toddler Posyandu (2021)	IDR 6,000,000 (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
Sampetan & Seboto Health Cadres	87	Assistance for toddler health posyandu (2021)	IDR 21.600.000 (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	There are health cadres who are enthusiastic and have good social status in the community to carry out Delivery Posyandu. Health cadres also have joint ventures.
		MSME Training on Traditional Herbal Medicine for Health Cadres & Provision of Production Equipment (2022)	IDR 6.000.000 (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
		Assistance in Establishing a Satellite Posyandu (2022)	IDR 33.000.000 (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	

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		PMT Innovation Training for health cadres (2022)	<b>IDR 6.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
<b>Toddlers, Elderly and Pregnant Women on the Terrace, Sampetan, Seboto</b>	2020: • Toddler 503 • Pregnant 42	PMT Assistance (Providing Supplemental Food) for Toddlers and Pregnant Women (2020)	<b>IDR 33.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	Improving the Health of Toddlers, Pregnant Women and the Elderly as well as Ease of Assets and Access to Health
		Assistance with medical equipment for toddlers posyandu (2021)	<b>IDR 6.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
	2021: • Toddler 458 • Pregnant 37	Assistance with medical equipment for toddlers posyandu (2021)	<b>IDR 21.600.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
		Assistance in Establishing a Satellite Posyandu (2022)	<b>IDR 21.600.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
	2022: • Toddler 476 • Pregnant 42 • Seniors 180	PMT Innovation Training for health cadres (2022)	<b>IDR 6.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	
<b>Villagers</b>	Village Population 6,189 1,254 Users	Assistance in making the Si-Kembang Toddler Posyandu Health Registration Application (2020)	<b>IDR 21.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	Reducing the risk of stunting, growth in height and weight that is not optimal and the risk of death for pregnant women
		Emergency Car Modification Assistance (2022)	<b>IDR 42.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	Emergency Car can function as ambulances and facilitate access to emergency and medical transportation for residents
<b>Village Government and Community Protector</b>	40	Communications Satellite Assistance (2022)	<b>IDR 18.000.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	Handling & Communication of health and security emergencies becomes faster
<b>Community Development Officer</b>	3	Participation as a companion for comdev activities (2020-2022)	<b>IDR 7.500.000</b> (Source of funds PT. Pertamina Patra Niaga FT Boyolali)	Community assistance, documentation, and implementation of the Yok Peka Program.

### Impact Calculation Approach and Monetization

The comdev activities described above have several medium and long term impacts which can be measured quantized by nominal monetization. The following table shows the outcomes that have been recorded along with their impact values as measured by proxies.

<b>N o</b>	<b>Stakeholders</b>	<b>Outcome</b>	<b>Monetization Approach</b>	<b>Proxy Type</b>	<b>Reference source</b>	<b>Unit Impact Value</b>	<b>Impact Value x Number of Beneficiaries</b>
1	Health cadre	Increased enthusiasm as a Desyandu Health Cadre	the cost of participating in the	Financial Proxy	<a href="https://geraie.sq.com/produ">https://geraie.sq.com/produ</a>	IDR 650,000	IDR 39,000,000

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	Desyandu Teras		Self Empowerment training		ct/cfw/the-amazing-you		
2	Teras Toddlers	Additional increase in Adequate Nutrition during a Pandemic and simple medical monitoring	interviews with a number of people how much money they are willing to pay for simple examinations, giving children vitamins and measuring children's growth and development during a pandemic in 1 year	Willingness to Pay	interviews, journals/notes of program implementation	IDR 60,000	IDR 30,180,000
3	Pregnant mother	Additional adequate health and nutrition improvements during the pandemic and simple medical monitoring	interviews with a number of people how much they are willing to pay for simple examinations, calculation of Estimated Date of Birth (HPL) and measurement of weight and health condition of pregnant women during a pandemic in 1 year	Willingness to Pay	interviews, journals/notes of program implementation	IDR 240,000	IDR 10,080,000
4	Teras Desyandu Health cadre	Increased pride as well as health record skills and assets	the cost of participating in the Self Empowerment training	Financial Proxy	<a href="https://geraiesq.com/product/cfw/the-amazing-you">https://geraiesq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 39,000,000
5	Application Users	Reducing the risk of stunting, growth in height and weight that is not optimal and the risk of death for pregnant women	estimated costs that need to be spent for consultation on baby/toddler weight and ideal pregnancy conditions	Financial Proxy	interviews, journals/notes of program implementation	IDR 420,000	IDR 526,680,000
6	Community Development Officer	Pride of work and increased experience of community empowerment	Cost of classes or sessions following motivational training	Financial Proxy	<a href="https://geraiesq.com/product/cfw/the-amazing-you">https://geraiesq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 1,950,000
7	Teras Desyandu Health cadre	Increased pride as well as health record skills and assets	the cost of participating in the Self Empowerment training	Financial Proxy	<a href="https://geraiesq.com/product/cfw/the-amazing-you">https://geraiesq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 23,400,000
8	Village Toddler	Residents can access minimum measurements of height and weight growth of toddlers	the cost that citizens are willing to pay to obtain a basic health check	Financial Proxy	Observation of work processes, interviews, journals/records of production activities (annual)	IDR 60,000	IDR 28,920,000

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9	Pregnant mother	Additional adequate health and nutrition improvements during the pandemic and simple medical monitoring	interviews with a number of people how much they are willing to pay for a simple examination, calculating the HPL and measuring the weight and health condition of pregnant women during a pandemic in 1 year	Willingness to Pay	interviews, journals/notes of program implementation	IDR 240,000	IDR 8,880,000
10	Community Development Officer	Pride of work and increased experience of community empowerment	Cost of classes or sessions following motivational training	Financial Proxy	<a href="https://geraiesq.com/product/cfw/the-amazing-you">https://geraiesq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 1,950,000
11	Health cadres Desyandu Sampetan & Seboto	Increased pride as well as health record skills and assets	the cost of participating in the Self Empowerment training	Financial Proxy	<a href="https://geraiesq.com/product/cfw/the-amazing-you">https://geraiesq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 23,400,000
12	Sampetan & Seboto Village Toddlers	Reducing the risk of stunting and suboptimal height and weight growth	Cost Estimation and Evaluation of the Intervention Program for Providing Processed Food for Special Medical Purposes (PKMK) to Improve Nutritional Status	Financial Proxy	<a href="https://jurnal.fkm.ui.ac.id/jurnal-eki/article/view/5323/1288">https://jurnal.fkm.ui.ac.id/jurnal-eki/article/view/5323/1288</a>	IDR 5,495,438	IDR 2,648,801,116
13	Sampetan & Seboto Pregnant Women	Additional adequate Health and Nutrition improvements and simple medical monitoring	interviews with a number of people how much they are willing to pay for a simple examination, calculating the HPL and measuring the weight and health condition of pregnant women during a pandemic in 1 year	Willingness to Pay	interviews, journals/notes of program implementation	IDR 240,000	IDR 10,080,000
14	Health cadres Desyandu Sampetan & Seboto	Health cadres have the knowledge to make herbal powder from ginger	Community Service Costs for the Implementation of Science and Technology Program for the Higher Education Community	Financial Proxy	<a href="https://lppm.undip.ac.id/wp-content/uploads/Panduan-Penelitian-dan-Pengabdian-kepada-Masyarakat-Edisi-XIII.pdf">https://lppm.undip.ac.id/wp-content/uploads/Panduan-Penelitian-dan-Pengabdian-kepada-Masyarakat-Edisi-XIII.pdf</a>	IDR 150,000,000	IDR 150,000,000
15	Youth Health Cadres &	Family Welfare Programme (PKK) members, members of health cadres and also	Increased additional income earned by the PKK group from	Financial Proxy	Observation of work processes, interviews,	IDR 120,000,000	IDR 1,440,000,000

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	Business Groups	Youth Business Groups can produce Herbal Ginger Powder at home	Jamu Jahe production in 1 year		journals/records of production activities (annual)		
16	Village Toddler	Toddlers get increased nutrition and body immunity so they can reduce the risk of stunting	Cost Estimation and Evaluation of the Intervention Program for Providing Processed Food for Special Medical Purposes (PKMK) to Improve Nutritional Status	Financial Proxy	<a href="https://jurnal.fkm.ui.ac.id/jurnal-eki/article/view/5323/1288">https://jurnal.fkm.ui.ac.id/jurnal-eki/article/view/5323/1288</a>	IDR 5,495,438	IDR 2,615,828,488
17	Village Elder	The elderly get increased nutrition and body immunity	Elderly Medical Check Up Costs	Financial Proxy	<a href="https://www.sehatq.com/promo/medical-check-up-mcu-lansia-1-laboratorium-klinik-ultra-medica-semarang">https://www.sehatq.com/promo/medical-check-up-mcu-lansia-1-laboratorium-klinik-ultra-medica-semarang</a>	IDR 368,000	IDR 66,240,000
18	Pregnant mother	Pregnant women get improved health, nutrition and body immunity	interviews with a number of people how much they are willing to pay for a simple examination, calculating the HPL and measuring the weight and health condition of pregnant women during a pandemic in 1 year	Financial Proxy	interviews, journals/notes of program implementation	IDR 240,000	IDR 10,080,000
19	The government and protector of the Sampetan Village community	Handling health emergencies becomes faster	costs that are willing to be paid so that Pemdes and Linmas can respond more quickly to emergency conditions including health	Willingness to Pay	interviews, journals/notes of program implementation	IDR 500,000	IDR 20,000,000
20	Health cadres Desyandu Sampetan & Seboto	Increasing the social role of health cadres	the cost of participating in the Self Empowerment training	Financial Proxy	<a href="https://geraisq.com/product/cfw/the-amazing-you">https://geraisq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 56,550,000
21	Village Toddler	Toddlers get improved health, nutrition and body immunity	Cost Estimation and Evaluation of the Intervention Program for Providing Processed Food for Special Medical Purposes	Financial Proxy	<a href="https://jurnal.fkm.ui.ac.id/jurnal-eki/article/view/5323/1288">https://jurnal.fkm.ui.ac.id/jurnal-eki/article/view/5323/1288</a>	IDR 5,495,438	IDR 2,615,828,488

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			(PKMK) to Improve Nutritional Status				
2 2		Families of toddlers get easier access to health	saving time and transportation costs to the Posyandu at the Village level because there are already Posyandu at the RT level	Reseource Allocation	interviews, journals/notes of program implementation	IDR 300,000	IDR 142,800,000
2 3	Village Elder	The elderly get improved health, nutrition and body immunity	Elderly Medical Check Up Costs	Financial Proxy	<a href="https://www.sehatq.com/promo/medical-check-up-mcu-lansia-1-laboratorium-klinik-ultra-medica-semarang">https://www.sehatq.com/promo/medical-check-up-mcu-lansia-1-laboratorium-klinik-ultra-medica-semarang</a>	IDR 368,000	IDR 66,240,000
2 4		The elderly have easy access to health checks	saving time and transportation costs to the Posyandu at the Village level because there are already Posyandu at the RT level	Reseource Allocation	interviews, journals/notes of program implementation	IDR 300,000	IDR 54,000,000
2 5	Pregnant mother	Pregnant women get improved health, nutrition and body immunity	interviews with a number of people how much they are willing to pay for a simple examination, calculating the HPL and measuring the weight and health condition of pregnant women during a pandemic in 1 year	Financial Proxy	interviews, journals/notes of program implementation	IDR 240,000	IDR 10,080,000
2 6		Pregnant women have easy access to health checks	saving time and transportation costs to the Posyandu at the Village level because there are already Posyandu at the RT level	Reseource Allocation	interviews, journals/notes of program implementation	IDR 300,000	IDR 12,600,000
2 7	residents of Sampetan Village	Guaranteed transportation assets and access to health for residents	The cost of renting an ambulance in one year is an average of pregnant women, sick or deceased residents in Sampetan Village	Financial Proxy	interviews, journals/notes of program implementation	IDR 600,000	IDR 48,000,000

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28	Health cadres Desyandu Sampetan & Seboto	Health cadres have the knowledge to create PMT innovations	Community Service Costs for the Implementation of Science and Technology Program for the Higher Education Community	Financial Proxy	<a href="https://lppm.undip.ac.id/wp-content/uploads/Panduan-Penelitian-dan-Pengabdian-kepada-Masyarakat-Edisi-XIII.pdf">https://lppm.undip.ac.id/wp-content/uploads/Panduan-Penelitian-dan-Pengabdian-kepada-Masyarakat-Edisi-XIII.pdf</a>	IDR 150,000,000	IDR 150,000,000
29	Community Development Officer	Pride of work and increased experience of community empowerment	Cost of classes or sessions following motivational training	Financial Proxy	<a href="https://geraiesq.com/product/cfw/the-amazing-you">https://geraiesq.com/product/cfw/the-amazing-you</a>	IDR 650,000	IDR 1,950,000

### Recapitulation of Impact Value and SROI Calculation

The adjusted impact value is then divided by the investment value (which is the input value), so that the return on investment can be determined. The following table shows SROI values per year from 2020 to 2022, as well as predictive SROI values for 2023 to 2025.

Years	2020	2021	2022	2023	2024	2025
Present value of each year	70,102,500	126,680,523	439,016,940	329,375,560	250,308,287	193,115,471
Total Present Value (PV)	70,102,500	196,783,023	635,799,963	965,175,523	1,215,483,810	1,408,599,281
Net Present Value (PV minus the investment)	41,052,500	137,633,023	470,149,963	799,525,523	1,049,833,810	1,242,949,281
Social Return (Value per amount invested)	2.41	3.33	<b>3.84</b>	5.83	7.34	8.50

\*Indonesian Bank Discount Rate = 5%

The results of the SROI analysis for the period 2020 to 2022 show a benefit value of Rp. 635,799,963 compared to the investment value of Rp. 165,650,000. In other words, every Rp. 1 investment in the Yok Peka program can generate benefits of Rp. 3.84 (SROI = 1: 3.84). As a comparison, the following is a comparison of the results of Yok Peka's SROI analysis compared to the SROI analysis of related programs.

Location & Project	Analysis	Immediate Impact (Program End)
SROI Evaluation Project Search For North Lanarkshire Council (adults with a learning disability)	SROI	1 : 3.8
SROI Evaluation for Modified Vehicles for People with Disability	SROI	1 : 2.78
SROI Evaluation for Community Learning Innovation Fund (CLIF) Project in Birmingham Disability Resource Centre (DRC)	SROI	1 : 3.8
SROI Evaluation for YOK PEKA by PT Pertamina Fuel Terminal Boyolali	SROI	1 : 47
SROI evaluation for Yok Peka by PT Pertamina Fuel Terminal Boyolali	SROI	1 : 3.84



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### CONCLUSION

The Yok Peka comdev program has been implemented by PT Pertamina Patra Niaga Fuel Terminal (FT) Boyolali. The comdev program is held in the company's ring 1, ring 2 and ring 3 areas by involving fostered partners or direct beneficiaries, namely: Posyandu cadres in Teras Village, Sampetan Village, and also Seboto Village. Conditions before the program showed access and asset problems faced by toddlers as well as pregnant women and the elderly in the health sector. This condition is even shown by the occurrence of cases of infant mortality, stunting under five and the death of pregnant women. After carrying out social innovation through Yok Peka activities, village communities are then able to be more empowered and have assets and access to health.

Based on data from the Government and also village midwives, the Yok Peka program in 2022 has succeeded in helping to improve the nutrition of 50 toddlers who were previously categorized as stunting. Compared to 2021, there were cases of death of pregnant women, in 2022 there will not even be any cases of death of pregnant women. In addition, there were 12 pregnant women who were later declared to have passed the KEK condition. The results of the SROI analysis for the period 2020 to 2022 show a benefit value of Rp. 635,799,963 compared to the investment value of Rp. 165,650,000. In other words, every Rp. 1 investment in the Yok Peka program can generate benefits of Rp. 3.84 (SROI = 1: 3.84).

Another result of the Yok Peka Program is that Teras Village and Sampetan Village, which previously had health problems, were designated as Alert Villages based on the Boyolali Regent's Decree. In addition, the Yok Peka program was able to bring about systemic changes in two ways. The first is related to how vulnerable groups are able to own assets and access health. The second is related to how changes in the community and village government in dealing with disaster conditions and also health emergencies. This is of course very essential, especially learning from the cases of the COVID-19 pandemic that have hit. Not only that, through the Yok Peka program, Sampetan Village was then announced as through Village Regulations as a Healthy Village. On the other hand, the Yok Peka program has also succeeded in increasing the welfare of health cadres through an entrepreneurial innovation program. So that a strong chain of community empowerment is realized through the Yok Peka Program.

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