European Journal of Research Development and Sustainability (EJRDS)
Available Online at: https://www.scholarzest.com
Vol. 2 No. 12, December 2021
ISSN: 2660-5570

METHOD OF SOCIAL RETURN ON INVESTMENT (SROI) ON SOCIAL AND ENVIRONMENTAL RESPONSIBILITY IN SUSTAINABLE ENVIRONMENTALLY FRIENDLY HEALTHY AGRICULTURE PROGRAM SRI ORGANIC PT VALE INDONESIA TBK

Hasanuddin[1], Sukiman[2], Laode Muhammad Ichman[3]
[1]University of Gorontalo
[2]University of Muhammadiyah Makassar
[3]PT Vale Indonesia Tbk
*Corr: achankbagu.bone@gmail.com

Article history:
Received: 6th October 2021
Accepted: 7 th November 2021
Published: 17th December 2021

Abstract:
This study aims to measure the impact of the investment value carried out by PT Vale Indonesia Tbk on the Sri Organic Healthy, Environmentally Friendly and Sustainable Agriculture Program in the Mahalona Raya District, East Luwu Regency. This research is a survey research that uses questionnaires as a data collection tool for analysis of 30 respondents using Net Present Value and SROI analysis tools. The results of the study indicate that there are several parties who are affected by the Sri Organic Program in Mahalona Raya District, namely: 1. farmers as program actors with a total impact value received for 5 years of Rp. 2,483,801,688.59. The impact of increasing income is the biggest contributor to farmers with an impact value of Rp. 1,570,480,066.67, then Savings in agricultural inputs with an impact value of Rp. 582,930,000, and Utilization of knowledge of organic SRI cultivation worth Rp. 330.391.621.92., 2. Marketing agents by getting the difference in profits from selling organic rice packaged products with the total impact value when compared to selling non-organic rice packaged products in the same amount, the total impact value received for 3 years is Rp. 643.666.660.71. 3. Rice entrepreneurs benefit from the difference in sales of organic rice packaged products from processing organic unhulled rice, when compared to doing the same thing with the same amount of unhulled and non-organic rice, the total impact value received for 5 years is Rp. 669,600,000., 4. Drying grain in 3 years get a total value of impact from the program of Rp. 26,400,000 through the acquisition of wages for drying grain where previously when drying grain it was only enough to eat with the family. 5. Rice sorting and packaging workers, through obtaining additional income from rice sorting and packaging services in 3 years, get a total value of impact from the program of Rp. 27,000,000, after deducting from the displacement value of 6.67%.

Keywords: SROI, Sri Organic, Social and Environmental Responsibility, Sustainable Environmentally Friendly Healthy Agriculture Program

INTRODUCTION

Social and environmental responsibility which is the company's commitment to create a balance between environmental and social conditions can be realized in various programs and activities with specific visions and objectives[1]. However, social and environmental responsibility, which is the focus of the company, cannot be communicated properly if it is not packaged in an effective communication medium in the form of sustainable programs. Communities cannot assess and interpret company goals, issues, programs, and activities if they implement sustainable programs.

The company's performance which is increasingly being observed by the wider community, especially in relation to the community around where the company operates, has an influence on the sustainability of the company's

[1] Gunawan, J. 2018. Tanggung Jawab Sosial, Lingkungan dan Reputasi Perusahaan: Pengungkapan Pada Sistus Bank. *Media Riset Akuntansi, Auditing & Informasi*, 18 (1), 49–74.

operations. Corporate social and environmental responsibility is very important, especially to build relationships and build trust, as well as show the company's goodwill towards its stakeholders. Not only the community, the mass media, investors, and the wider community have their own interests in observing and assessing corporate social responsibility actions. There is a demand for accountability for transparent and accountable organizational governance, adding to the value and importance of Social and Environmental Responsibility.

In order to realize PT Vale Indonesia Tbk Mission as outlined in the Community Development and Empowerment Program Policy "Managing natural resources into prosperity and sustainable development" and the company's values, especially "Respect our earth" and "Doing the right thing", the company implement an integrated Community Development and Empowerment program and contribute to improving the welfare and independence of the local community around its operational area. The implementation of the social program refers to the "Sustainable Development Goals" and involves three main components, namely Local Communities, Government and Companies.

To support the corporate social and environmental responsibility program, an Independent Rural Area Development is carried out based on rural superior commodities in order to achieve an independent and competitive rural area, PT Vale Indonesia Tbk together with the East Luwu Regency Government and the community encourage the development of actors and institutional capacities to support SRI Organic's Healthy, Environmentally Friendly and Sustainable Agriculture program. The program is also in line with the Health, Safety and Environment Policy to implement measures to protect the environment and reduce pollution.

Since 2016 the company's social and environmental responsibility has implemented these programs and has been running in accordance with the strategic planning that has been prepared, and the benefits of the program's success have also been felt by the community such as improving the economy, quality of health and contributing to increasing the carrying capacity of the environment.

The program has involved farmers as SRI Organic agricultural actors who on average have the knowledge to apply cultivation techniques by applying the 10 principles of Organic SRI as well as skills in optimizing the existence of local local resources by providing organic materials (Compost and Local Microorganisms/Mole) and Vegetable Pesticides. which is processed independently so that it can provide economic value that is relatively efficient and effective as well as its health benefits because the rice is healthier which has high nutritional and mineral content, as well as low sugar content and rice products are not exposed to synthetic chemical compounds in pesticides. This cultivation technique also contributes to reducing CH_4, CO_2, N_2O, gas emissions, maintaining the balance of the ecosystem and improving the carrying capacity and productivity of the land.

RESEARCH METHOD

The method used in this study is a qualitative and quantitative approach, namely the data obtained by using a questionnaire. The data used to analyze SROI is data with an evaluative type in a 5 year period from 2016 to 2020, while still referring to SROI guidelines and steps with data sources; 1). Primary data, obtained by using a questionnaire to recipients of the impact of Sri Organic's Eco-Friendly and Sustainable Agriculture program from 2016 – 2020, 2). Secondary data, in the form of documents obtained from; (1) planning documents and reports for PT Vale Indonesia Tbk's Healthy, Environmentally Friendly and Sustainable Agriculture program, and (2) documents/reports related to the results of desk research.

In determining the sample in the SROI calculation of the Healthy, Environmentally Friendly and Sustainable Agriculture program of organic SRI, using non-probability sampling, which is a technique that does not provide equal opportunities or opportunities for all members of the population to be selected as samples, and the determination of the sample is carried out by purposive sampling technique, namely determining sample with certain considerations[2].. The sample categories that became respondents were farmers, grain transporters, grain dryers, rice entrepreneurs, rice mill owners, sorting and packaging workers, and marketing agents involving 30 respondents.

DATA ANALYSIS

After getting the data then processed using the following calculations

Net Present Value

Before calculating the Net Present Value that can be obtained from the program in each period, the present value calculation is carried out using the Bank Indonesia interest rate per August every year, 2016 r= 5.25%, 2017 r= 4.50%, 2018 r= 4.50%, 2019 r= 5.50%, and 2020 r= 4.00%. The following is an equation to calculate the impact value of the SRI organic Healthy, Environmentally Friendly and Sustainable Agriculture program.

$$\text{PV (n)} = \frac{Value\ of\ impact\ (n)}{(1+r)\text{^}n}$$

$$\text{Present Value} = \frac{\text{Value of impact in Year 1}}{(1+r)^1} + \frac{\text{Value of impact in Year 2}}{(1+r)^2} + \frac{\text{Value of impact in Year 3}}{(1+r)^3} + \frac{\text{Value of impact in Year 4}}{(1+r)^4} + \frac{\text{Value of impact in Year 5}}{(1+r)^5}$$

[2] Sugiyono, 2012. *Metode Penelitian Kombinasi (mixed methods), Bandung, Alfabeta.*

Source: The SROI Network. 2012

To calculate the Net Present Value (NPV) is the difference between expenses and income[3], use the following equation formula.

$$Net\ Present\ Value\ (NPV) = Present\ Value - Value\ of\ Investment$$

If the NPV value < 0, the investment made results in losses for the company, if the NPV value = 0, the investment does not result in losses or does not provide benefits for the company or break even, and if the NPV value > 0, the investment made provides benefits for the company.

SROI Ratio

Next, calculate the value of the SROI ratio using the following equation:

$$\text{SROI ratio} = \frac{Present\ Value}{Value\ of\ Input}$$

If the value of the SROI ratio < 1, each investment value is Rp. 1 suffered a loss equal to the value of the SROI ratio for the implementation of the program, if the value of the SROI ratio = 1, each investment value of Rp. 1 does not get benefits or break even for the implementation of the program, and if the value of the SROI ratio > 1, each investment value is Rp. 1 gets a benefit equal to the value of the SROI ratio for program implementation.

SROI Calculation of Sustainable Environmental Friendly Healthy Agriculture Organic SRI Program Stakeholder Identification

Stakeholder identification is the first step that must be carried out after determining the scope in the flow of steps for calculating the SROI ratio, namely identifying stakeholders who receive positive or negative impacts from the direct or indirect implementation of the Organic SRI Healthy, Environmentally Friendly and Sustainable Agriculture program.

Stakeholders involved in SRI Organic's Healthy, Environmentally Friendly and Sustainable Agriculture program, their roles and impacts are as follows

Table 1. Stakeholders, Roles and Impacts

Stakeholder	Role in Program	Impact Received
Farmer	As a participant in the SRI Organic Healthy, Environmentally Friendly and Sustainable Agriculture (PSRLB) program	1. Save on the use of agricultural inputs (LEISA: Low External Input Sustainable Agriculture) 2. Save water usage 3. Increase farmer's income 4. Using organic SRI cultivation knowledge in farming 5. Increased social cohesion between farmers
Grain carrier	As a post-harvest organic grain carrier	Get grain transportation wages
Grain drying	As a post-harvest organic rice dryer that is not absorbed by entrepreneurs	Get income from drying service wages
Rice entrepreneur	• As a buyer of farmers' grain and processing it into rice then selling it in the form of organic packaged rice products. • As a rice entrepreneur including: 2016, East Luwu BUMD; 2017, ROOTS; 2018 and 2020, SRI Organic Farmers Association; and 2019, PT Nusantara Rukun Lestari in collaboration with the Sri Organic Traders Association	Get an increase in sales profits from processed organic unhulled rice into organic rice
Rice Mill Owner	As a service provider of rice milling, which is used by (Organic SRI Farmers Association) when rice entrepreneurs are unable to buy all of their grain production from farmers	Get the results of the rental of milled grain
Sorting and Packaging Workers	As the person in charge of sorting the milled organic rice and packaging it into organic rice packaging products	Earn additional income

[3] The SROI Network. 2012, *A guide to Social Return of Investment*, The SROI Network, Accounting for Value

Marketing Agency	As a distributor of organic rice products to agents and consumers	Increase profits from the difference between organic and non-organic rice sales
Environment	By farming organically, rice fields that are processed using local microorganisms and vegetable pesticides can maintain soil structure compared to using chemical fertilizers such as: Urea, NPK	Contribution to the reduction of greenhouse gas emissions (CH_4, CO_2, and N_2O)

Source: Processed data, 2020

Program Input Factors and Values

Factors and input values for the main activities in the implementation of the organic SRI Environmental Friendly and Sustainable Healthy Agriculture program in the integrated agricultural area, Mahalona Raya, East Luwu Regency, as shown in table 2 below:

Table 2. Factors and Input Values for Organic SRI Program

No.	PROGRAM INPUT FACTORS	INPUT VALUE
2016		
1	Development of organic Sri rice cultivation and healthy homes	129.589.763
2	Training on technical strengthening and cultivation of principal farmers (base group)	46.678.500
3	Operations, supervision, monitoring and evaluation of activities	91.661.006
4	Business travel operations	117.464.119
TOTAL		385.393.388
2017		
1	Technical Assistance for Organic SRI Rice Cultivation	333.672.021
2	Training, Workshop and Evaluation of cultivation results	50.740.725
3	Village Economic Institutions	10.111.111
4	Cultivation Facilities and Infrastructure and Model BP3K	12.344.889
TOTAL		406.868.746
2018		
1	Technical Assistance for Organic SRI Rice Cultivation	116.800.025
2	Cultivation Facilities and Infrastructure and Model BP3K	3.472.000
TOTAL		120.272.025
2019		
1	Technical Assistance for Organic SRI Cultivation	306.295.000
2	Monitoring Evaluation and Supervision	67.906.667
3	Soil Ecology Training (2x) and Farmer Study Training (2x)	54.633.333
4	Field School, Post Harvest Handling & 5x TOT	25.568.889
5	1x Sustainable Eco-Friendly Healthy Agriculture Workshop	28.294.444
6	1x Organic Product Certification	22.880.000
7	Cultivation Facilities and Infrastructure and Model BP3K	15.204.444
TOTAL		539.116.111
2020		
1	Technical Assistance for Organic SRI Cultivation	298.375.000
2	Monitoring Evaluation and Supervision	15.090.370
3	Soil Ecology Training (2x) and Farmer Study Training (3x)	54.633.333
4	Field School, Post-Harvest Handling & TOT	31.961.111
5	Cultivation Facilities and Infrastructure and Model BP3K	28.294.444
TOTAL		458.567.593

Source: *ALIKSA, 2020*[4]

RESULTS AND DISCUSSION

Proving It, Giving It Value, and Establishing Impact

Based on the results of data processing from a survey conducted on stakeholders, and the implementation stage of the SROI calculation is carried out at the verification and scoring stage on the impacts that are expected to be received by stakeholders, of the 8 identified stakeholders who are expected to receive the program's impact, it turns out that from the calculation results expected to receive the economic impact of program implementation. There are 2

[4] ALIKSA, 2020. *Rencana Anggaran Biaya Program PSRLB SRI Organik di Mahalona Raya*

stakeholders who do not receive the impact of the program, namely the perpetrators of grain transporters and the perpetrators of grain milling.

From the processed data, the average ability of grain carriers to transport grain in each planting period is 40 sacks, of which in one sack it is 68 kg. At the price of grain transportation services per kg for organic and non-organic grain, there is no difference in price or the value of the service fee is the same as Rp. 950,/kg. So in the calculation, the grain carrier does not get a difference in income when transporting organic grain compared to non-organic grain. Likewise, the owner of the grain mill cannot get an impact on the implementation of the program, because there is no price difference for grinding white organic grain compared to non-organic.

Table 3. Description and Determination of Impact Indicators

NO.	IMPACT	DESCRIPTION How would you explain the change?	INDICATOR How do you measure it?
1.	**Farmer**		
1.1.	Save on the use of agricultural inputs *(LEISA: Low External Input Sustainable Agriculture)*	Farmers no longer buy synthetic chemical fertilizers and pesticides. Because farmers are taught to make compost, organic fertilizers, nutrition for local microorganisms, seeds/seeds, and vegetable pesticides independently, so that farmers can be independent.	Calculate the average difference in production costs for production inputs, then the Saprodi Savings Value between conventional methods and organic SRI cultivation every year a. The average cost of production input for non-organic farmers per hectare is Rp. 6.200.000,- per hectare b. The average cost of production inputs for organic SRI farmers per hectare is Rp. 3,500,000,- per hectare c. Total area of SRI Organic cultivation farmers: **PT1:** / **PT2:** 2016 = 22,75 ha / 2016 = 23,25 ha 2017 = 16,75 ha / 2017 = 47,6 ha 2018 = 19,35 ha / 2018 = 11,7 ha 2019 = 14 ha / 2019 = 14,5 ha 2020 = 19 ha / 2020 = 27 ha
1.2.	Save water usage	Farming using the organic SRI method can certainly save significant water, where the SRI method does not allow rice to continue to be soaked but is kept in moist conditions. By using the organic SRI method, you can get a comparison of the use of water from conventional methods, this is because the SRI method does not stagnate with water, so it can save water by 42%	Calculating the difference in water use (hectare/cubic) in organic and non-organic SRI cultivation fields 1. The total area of paddy fields (hectare) in the SRI Organic cultivation program for PT1 and PT2 (2016, 2017, 2018, 20119 dan 2020 2. Amount of water requirement per hectare in organic and non-organic SRI cultivation fields 3. The price of water per cubic (m^3)
1.3.	Increasing Farmers' Income	With the organic SRI program, the farmers' products, which were previously cheap, became higher. In addition, the amount of production in one hectare has also increased, and the expenditure per hectare is cheaper	Calculate the difference in the income of organic and non-organic farmers in the same amount of production 1. Average amount of organic grain production: PT1 = 2.297,33 kg PT2 = 2.732,67 kg 2. The selling price of grain: *organic:* 2016 : Rp. 4.400 /kg 2017 : Rp. 4.766,67 /kg 2018 : Rp. 5.133,33 /kg 2019 : Rp. 5.500 /kg 2020 : Rp. 5.500 /kg *non organic:* 2016 : Rp. 2.273,33 /kg 2017 : Rp. 2.766,67 /kg 2018 : Rp. 3.433,33 /kg 2019 : Rp. 3.933,33 /kg 2020 : Rp. 4.160 /kg 3. Number of farmers' land for organic SRI Cultivation: PT1: 2016 = 22,75 ha 2017 = 16,75 ha 2018 = 19,35 ha 2019 = 14 ha 2020 = 19 ha PT2: 2016 = 23,25 ha 2017 = 47,6 ha 2018 = 11,7 ha 2019 = 14,5 ha 2020 = 27 ha

NO.	IMPACT	DESCRIPTION How would you explain the change?	INDICATOR How do you measure it?
			4. The average cost of production inputs for conventional farmers per hectare is Rp. 6.200.000,- per hectare 5. The average cost of production inputs for organic SRI farmers per hectare is Rp. 3,500,000,- per hectare
1.4.	Using organic SRI cultivation knowledge in farming	With the organic SRI Program, farmers already have knowledge of organic SRI cultivation methods. Then with this knowledge, farmers have been farming with the Organic SRI method.	Calculating the value of the knowledge source of farmers who have used it with the application of organic SRI cultivation, where previously no one has applied organic SRI cultivation 1. Number of farmers per planting period (PT) per year who have been applied/practiced after the Sri Organic Cultivation Technique training: PT1 + PT2: 2016 = 38 org 2017 = 68 org 2018 = 45 org 2019 = 39 org 2020 = 55 org 2. Value of training costs for organic SRI cultivation techniques per farmer 2016 = Rp. 1.116.710,53 2017 = Rp. 666.238,55 2018 = Rp. 2.317.460,81 2019 = Rp. 1.609.971,51 2020 = Rp. 1.374.141,41
1.5.	Increased social cohesion between farmers	The intensity of gathering and discussing organic SRI cultivation techniques among farmers is increasing with the knowledge	
2.	**Grain drying**		
2.1.	Get income from drying service wages	Dryers get a job and a drying fee based on the number of kg of organic grain that is dried, where previously they only worked in the sun to get their share of unhulled grain which was milled into rice for the family's food needs.	Calculating the income earned by drying workers, where previously they could only get a share of grain for family consumption 1. Biaya upah jemur: 200/kg 2. The average number of kg of grain that can be dried per person per Planting Time PT1: 10.000 kg PT2: 12.000 kg 3. The number of drying workers is 2 people per MT1 and MT2
3.	**Rice entrepreneur**		
3.1.	Increase sales profit from processed organic grain into organic rice	Rice entrepreneurs get profit value from the difference in the value of selling organic rice compared to selling organic rice from the purchase of organic grain which is processed into organic rice, and then sold by distributing organic rice products to marketing agents.	Calculating the difference in the value of profits from the comparison of selling organic rice with non-organic rice in the same number of kg 1. The number of purchases of organic grain each year 2016 : 40.000 kg 2017 ; 56.000 kg 2018 : 29.000 kg 2019 : 14.000 kg 2020 : 24.000 kg 2. The price of organic and non organic grain each year 2016 = Non Organic Rp. 2.500, and Organic Rp. 5.500, 2017 = Non Organic Rp. 3.500, and Organic Rp. 5.500, 4. The price of rice every year 2016 = Non Organic Rp. 6.000, and Organic Rp. 18.000 2017 = Non Organic Rp. 7.000, and Organic Rp. 18.000 2018 = Non Organic Rp. 7.500, and Organic Rp. 16.500

NO.	IMPACT	DESCRIPTION How would you explain the change?	INDICATOR How do you measure it?
			2018 = Non Organic Rp. 3.700, and Organic Rp. 5.500, 2019 = Non Organic Rp. 8.000, and Organic Rp. 35.000 2019 = Non Organik Rp. 4.000, and Organic Rp. 5.500, 2020 = Non Organic Rp. 8.000, and Organik Rp. 16.500 2020 = Non Organic Rp. 4.200, and Oerganic Rp. 5.500, 3. The number of sales of organic rice each year 2016 : 21.000 kg 2017 ; 29.000 kg 2018 : 14.500 kg 2019 : 7.500 kg 2020 : 12.000 kg
4.	**Sorting and Packaging Workers**		
4.1.	Earn additional income	With the management of organic rice packaging products from the Sri Organic Trade Association, Sorting and Packaging Workers have the opportunity to work to earn additional income in the form of wages per kg of the number of kg of rice that has been sorted and packaged.	Calculating additional income earned from sorting and packaging work for packaging organic rice products from the Sri Organic Traders Association a. Number of people filtering (sorting) and packing rice: 6 people for 2018, 2019 and 2020 b. Wage fee per kg for filtering/sorting and packing rice: White : Rp. 1.000 Red : Rp. 1.500 c. Number of ability to sort and pack rice each year White rice : PT1 480 and PT2 480 Red rice : PT1 180 and PT2 180
5.	**Marketing Agency**		
5.1.	Increase profits from the difference between organic and non-organic rice sales	Marketing agents get additional income from the difference between organic and non organic rice sales	Calculating the difference in income from the sale of organic and non organic rice. 1. The average number of kg of organic rice sales per agent in a year = 1.747,5 kg 2. The average price of organic and non-organic rice per kg 2018 = Non Organic Rp. 11.500, and Organic Rp. 17.642,86 2019 = Non Organic Rp. 11.625, and Organic Rp. 17.812,5 2020 = Non Organic Rp. 11.750, and Oerganic Rp. 17.837,5 3. Number of marketing agents 2018-2020 = 16 agent 2019-2020 = 6 agent

Source: Processed data, 2020

Calculating SROI Ratio

The net present value and SROI ratio of the impact of the organic SRI program. Based on the results of the calculation of the value of each impact from 2016 to 2020, the Net Present Value and the SROI ratio of the program each year are obtained in table 4 below:

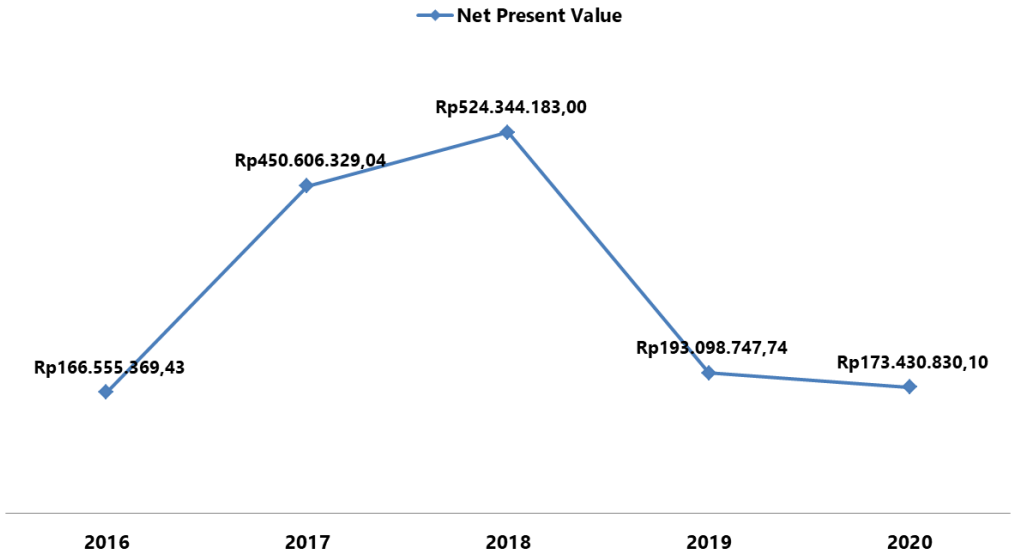
Table 4. Quantity Value and Financial Approach to Impact Calculation (Rp)

TAHUN	2016	2017	2018	2019	2020	Jumlah
Farmer: Agricultural production savings *(LEISA: Low External Input Sustainable Agriculture)*	124.200.000,00	173.745.000,00	83.835.000,00	76.950.000,00	124.200.000,00	**582.930.000,00**
Farmer: Increase in Farmer's Income	282.291.066,67	510.335.000,00	300.960.000,00	230.383.000,00	246.511.000,00	**1.570.480.066,67**
Farmer: Utilization of knowledge of organic SRI cultivation by farmers in implementing Organic farming	42.435.000,00	45.304.219,00	104.285.736,25	62.788.888,89	75.577.777,78	**330.391.621,92**
Rice Entrepreneur: Get sales profit from processed organic grain into organic rice	132.000.000,00	207.000.000,00	78.300.000,00	181.500.000,00	70.800.000,00	**669.600.000,00**
Grain Dryer: Get income from drying service wages			8.800.000,00	8.800.000,00	8.800.000,00	**26.400.000,00**
Sorting and Packaging Workers: Earning service fee income per kg as sorting and packaging workers			9.000.000,00	9.000.000,00	9.000.000,00	**27.000.000,00**
Marketing Agency: Profit from the difference in sales			171.754.285,71	237.878.437,50	234.033.937,50	**643.666.660,71**
Total outcome (Rp)	**580.926.067**	**936.384.219**	**756.935.022**	**807.300.326**	**768.922.715**	**3.850.468.349,30**
Present Value (Rp)	**551.948.757**	**857.475.075**	**644.616.208**	**651.666.340**	**631.998.423**	**3.337.704.803**
Total Investasi (Rp)	**385.393.388**	**406.868.746**	**120.272.025**	**458.567.593**	**458.567.593**	**1.829.669.343**
Net Present Value (Rp)	**166.555.369,43**	**450.606.329,04**	**524.344.183,00**	**193.098.747,74**	**173.430.830,10**	**1.508.035.459,31**
SROI Ratio	**1,43**	**2,11**	**5,36**	**1,42**	**1,38**	**1,82**

Source: Processed data, 2020

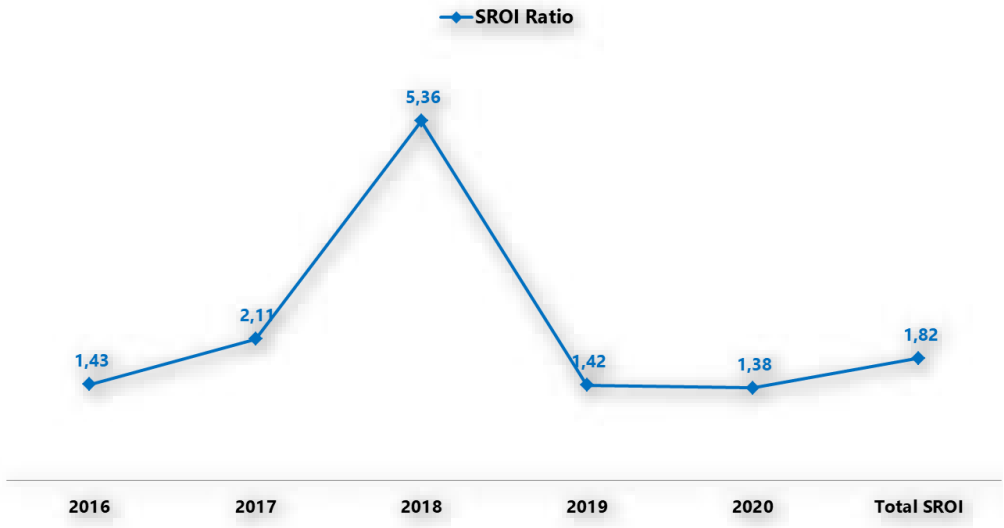
Based on the data in Table 4 and Graph 1 and Graph 2 below, the organic SRI PSRLB program in 2016 obtained an NPV value of Rp. 166,555,369.43, with an SROI ratio of 1.43; 2017 get an NPV value of Rp. 450.606329.04, with an SROI ratio of 2.11; 2018 get an NPV value of Rp. 524,344,183.00, with an SROI ratio of 5.36; 2019 get an NPV value of Rp. 193,098,747.74, with an SROI ratio of 1.42; 2020 get an NPV value of Rp. 173,430,830,10, with an SROI ratio of 1.38. The total value of NPV for 5 years of program implementation is Rp. 1,508,035,459.31, with a total SROI ratio of 1.82.

Graph 1. Net Present Value of Organic SRI Program



Source: Processed data, 2020

Graph 2. SROI Ratio Value Calculation of Impact of Organic SRI Program



Source: Processed data, 2020

DISCUSSION

SROI measures a broader concept, including; social, economic and environmental. SROI can also measure business "return" from social activities carried out by the company (Unggul Purwohedi, 2016). SROI has been widely used in various organizations such as; organizations in the non-profit (or voluntary), public and private sectors, including small, large, new and established (Lingane A, Olsen S, 2004).

SROI aims to improve social equity, environmental sustainability and welfare. In carrying out the SROI calculation, the focus is on answering 5 key questions: (1) Who is changing? SROI takes into account all significantly affected people, organizations and environments; (2) How did they change?. SROI focuses not only on what is desired but also focuses on all changes that take place both positive and negative; (3) How do you know? SROI collects information and evidence beyond the views of individuals; (4) How much information is needed? The SROI takes into account all other influences that could result in a change for the better, or for the worse; (5) How important was the change? Understanding the (relative) value of the impact (outcome) on all people, organizations and/or the environment (Social Value UK)

In the implementation of SROI, there are 7 principles as guidelines that must be adhered to in assessing the impact of a program, so that the results of the program's SROI calculation can be credible and reliable. The seven principles are as follows:

1. Understanding what changes
2. Involve stakeholders
3. Value the things that matter
4. Only include what is material
5. Do not over claim
6. Be transparent
7. Verify result

CONCLUSION

The implementation of the organic SRI PSRLB program from 2016, 2017, 2018, 2019, and 2020 provides value for the company with a total NPV value of Rp. 1,508,035,459.31 and the total value of the SROI ratio is 1.82. The highest value of the SROI ratio as well as the year of providing the largest benefits for the company was found in 2018 which received an NPV value of Rp. 524,344,183.00 with an SROI ratio of 5.36 which means that each investment value of Rp. 1 gets a benefit value of 5.36, then sequentially in 2017 the NPV value of Rp. 450.606329.04 with an SROI ratio of 2.11; 2016 got an NPV value of Rp. 166,555,369.43 with an SROI ratio of 1.43; 2019 got an NPV value of Rp. 193,098,747.74 with an SROI ratio of 1.42; and 2020 will get an NPV of Rp. 173,430,830,10 with an SROI ratio of 1.38.

The greatest impact obtained by stakeholders is on farmers as program actors with a total value of impact received for 5 years of Rp. 2,483,801,688.59. The impact of increasing income is the biggest contributor to farmers with an impact value of Rp. 1,570,480,066.67, then Savings in agricultural inputs with an impact value of Rp. 582,930,000, and the use of knowledge of organic SRI cultivation by farmers in implementing Organic agriculture is Rp. 330,391,621.92.

The second largest impact recipient after farmers are marketing agents who get the difference in profits from selling organic rice packaged products with the total impact value when compared to selling non-organic rice packaged products in the same amount, the total impact value received for 3 years is Rp. 643.666.660.71. Likewise, rice entrepreneurs benefit from the difference in sales of organic rice packaged products from processing organic unhulled rice, when compared to doing the same thing with the same amount of unhulled and non-organic rice, the total impact value received for 5 years is Rp. 669,600,000.

For drying grain in 3 years, the total impact value of the program is Rp. 26,400,000 through the acquisition of wages for drying grain where previously when drying grain it was only enough to eat with the family. Meanwhile, for rice sorting and packaging workers, through the additional income earned for rice sorting and packaging services in 3 years, the total impact value of the program is Rp. 27,000,000, after deducting from the displacement value of 6.67%. There are countless potential impacts, such as saving water use, increasing social cohesion between farmers, and on environmental aspects related to the contribution to reducing greenhouse gas emissions (CH_4, CO_2, and N_2O), due to the conditions and situation of covid, which limits researchers from extracting information. and deeper field data collection. With limited data on the potential impacts, it is not possible to calculate the impacts and are not included in the SROI calculation in this document.

RECOMMENDATION

Carry out careful calculations in the preparation of program planning by making adjustments between the types of activities and the amount of input factors as the program investment value used in program implementation with the output to be achieved as the basis for the change process that will occur in producing program impacts on stakeholders, especially organic SRI farmers .

Optimizing the role of organic SRI farmer associations and farmer groups in processing organic unhulled rice into organic rice product packaging to increase the added value of income for farmers as the largest beneficiaries of the stakeholders who receive the impact of the organic SRI program.

Facilitate farmers through farmer groups or in opening and maintaining continuity of market access for grain and organic rice. Increase the acreage of agricultural areas assisted by the organic SRI program in order to increase the amount of organic grain production.

REFERENCES

1. ALIKSA. 2020. Strategic Plan for the PSRLB Program in the Sorowako Block 2016-2025, PT Vale Indonesia Tbk.
2. ALIKSA. 2020. ROADMAP of Agriculture, Fisheries, Livestock Healthy, Environmentally Friendly and Sustainable 2019-2025, PT Vale Indonesia Tbk.
3. ALIKSA. 2020. Budget Plan for SRI Organic PSRLB Program in Mahalona Raya
4. Gunawan. J. 2018. Corporate Social, Environmental and Reputational Responsibilities: Disclosures on the Bank's Website. Media Research in Accounting, Auditing & Information, 18(1), 49–74.
5. Kotler. P., & Lee, N. 2005. Corporate Social Responsibility: Doing the most good for your company and your cause. New Jersey: John Wiley and Sons, Inc.
6. Lingane, A., and Olsen, S., 2004. Guidelines for Social Return on Investment. California Management Review, 46 (3)
7. Meilanny Budiarti Santoso, Adinegara, R., & Ismanto, S.U. 2018. Assessment of the Impact of CSR Implementation Social Investment Using Social on Investment (SROI) Methods. Journal of Business Administration and Entrepreneurship Thought and Research, 3 (2), 153–167.
8. Social Values UK.____. Starting Out on Social Return on Investment, Winslow House, Rumford Court, Rumford Place, Liverpool L3 9DG.
9. Sugiyono, 2012. Combined Research Methods (mixed methods), Bandung, Alfabeta.
10. The SROI Network. 2012, A guide to Social Return of Investment, The SROI Network, Accounting for Value.
11. Unggul Purwohedi, 2016. Social Return on Investment (SROI), a technique to measure the impact of a program or project