Economics Development Analysis Journal Vol (3) (2021)

Economics Development Analysis Journal

http://journal.unnes.ac.id/sju/index.php/edaj

Organic Waste Management Program Evaluation: A SROI and Action Research

Yuli Gunawan[1]✉, [2]Bambang Eko Wibisono, [3]Reta Yudistyana, [4]Dwi Thia Putri
Corporate Communication Department, PT Badak NGL

Article Information

History of Article
Received April 2021
Accepted June 2021
Pusblished August 2021

Keywords:
Badak NGL, Organic, Waste

Abstract

Company holds an important role in realizing sustainable development through CSR (Corporate Social Responsibility) programs. One of CSR program implemented by PT Badak NGL is community empowerment through community-based compost management. This study investigated social effects experienced by the stakeholders of environmental awareness community or Masdarling, and the extent of the social effects compared to the total investment made by PT Badak NGL. Quasi-qualitative was employed to carry out this study. Its data were analyzed using triangulation technique to map program advantages (qualitative) and Social Return on Investment-SROI (quantitative) approach. Meanwhile, the data themselves were collected using in-depth interview, Focus Group Discussion, and secondary data review. Based on the data analysis, it was found that the community-based compost management done in Masdarling village in the period of 2018-2020 obtained the SROI ration of 1.59, meaning that every 1 rupiah invested gained a benefit of 1.59 rupiah. This shows that this program is still categorized as feasible. In addition, the highest benefit felt by the compost stakeholders and Telihan Village officers was due to the addition of income for the members of compost management and the savings felt by people in Neighborhood or RT 26.

✉ Corresponding author:
Address: Corporate Communication Department, PT Badak NGL
E-mail: Yulig@badaklng.co.id

ISSN 2252-6560

INTRODUCTION

In the United Nations Summit held in 2015, Orgthere declared Sustainable Development Goals (SDGs) covering 17 goals and 169 measurable targets. This declaration was followed up by the Indonesia Government in form of issuing Presidential Regulation number 59 of 2017 concerning the Implementation of SDGs as the legal basis for the implementation of SDGs in Indonesia. Active participation of all stakeholders becomes a strength to the realization of SGDs, such as the Government and Parliament, Academics and Experts, Community Organizations and Media, Philanthropy and Business Actors. The collaboration of those parties will make SDGs possible to happen.

Company plays an important role in realizing SDGs through CSR (Corporate Social Responsbility) programs. CSR programs can provide a variety of benefits for companies (Pirsch et al., 2007). In practice, CSR is often considered as corporate giving, corporate philanthropy, and corporate community relations. CSR cannot be separated from the practice of community empowerment or often referred to as community development (Saleh & Sihite, 2020). ISO 260000 states that the aim of Social Responsibility is to contribute to sustainable development. Here, sustainable development refers to any development aiming at meeting future needs without ignoring the future generation ability to meet their own needs (United Nations Summit, page. 43). Thus, CSR in ISO 26000 strives for sustainable development that is in line with SDGs 2030.

Sustainable development through CSR programs is done by a company by empowering its surrounding community. It is known as social investment, and as investment, it is supposed to be measurable and profitable in the future. Basically the success of a CSR program, one of which relates to how the CSR program can have a significant effect and ultimately have a positive impact on community life around the company's area (Rosyida & Tonny Nasdian, 2011). One of companies which takes part in the realization of SDGs is PT Badak NGL. This is a non-profit company which engages in natural gas management through its CSR programs and attempts to develop nature-based tourism. The company located in Bontang city, East Borneo sees tourism potential in its site. It is Gunung Telihan Village RT 26 RW 26 which has hill contours that are possible to be utilized as a tourism place. To manage this, the local community formed an environmental awareness community (*Masdarling*). The main priority of a company is the existence of business sustainability, so that all aspects that can support the running of a business need to be maintained, namely social aspects, human resources (HR) and the environment or natural resources (SDA) (Nurbaiti & Bambang, 2017).

The growth of tourism in Telihan Village is quite rapid proved by the increase in number of tourists and economic activities. On the other hand, an increase of waste is its negative impact. When this waste is not managed well, there will be environmental pollution which further will reduce the income of the tourism sector and people welfare. Therefore, Masdarling created a sub-program of community-based compost management. Waste management has actually been regulated by the government in Law No.18/2008, namely waste management is not only the responsibility of the government. A closely related area of concern in developing countries is waste management (Cofie et al., 2009). Community and business doers as waste producers must do so in order to create clean and healthy environment. Through that Law, the government motivates people and business doers to plan and manage waste in their area, and it is expected that those parties can support and independently implement waste management strategies.

The demand of CSR to realize SDGs and waste problems in Telihan Village encouraged PT Badak NGL to carry out CSR to help Masdarling in managing waste. To achieve reduction of landfill waste, it is important to further develop the compost market (Sekito et al., 2013). It is done with the help of the community with the aim of realizing SDGs. In carrying out its CSR programs, PT Badak NGL orients towards the effects or outcomes, and not merely the output. It is because output approach is considered less optimum to assess the success of

a program. A good program is one that gives advantages and positive changes towards its recipients. Hence, Social Return on Investment (SROI) is far more appropriate to use in CSR report. According to New Economics Foundation (2009) SROI is an analytical study which turns any impacts based on the determined indicators to regulate the welfare of economy, social, and environment into currency, then compare the invested fund prior to the impacts. SROI also supports the realization of sustainable development because each program will be measured in terms of the effectiveness by referring to the resulted impacts afterwards.

In accordance with the previous explanation, this study attempted to assess the social impacts on the stakeholders of Masdarling compost management program, and the extent of the social impacts compared to the investment made by PT Badak NGL calculated using SROI method.

RESEARCH METHODS

This study used quasi-qualitative type. It is one of postpositivism research design (Bungin, 2020). At first, theories are used prior to solving problems. The use of those theories in the paradigm of positivism are demanded by researchers to answer phenomena and social contexts. This design can be possibly used in the middle of problems finding, data collection, and data analysis. In addition, the researchers in this study used triangulation method to analyze the beneficial effects of the programs qualitatively. This method is suitable for analyzing SROI which already has its own framework in guiding the researchers in conducting the study and strengthening the previous qualitative arguments.

Social impact as a result of masdarling compost management program by PT Badak NGL became the focus of this study and was measured by using SROI ratio. Meanwhile, PT Badak NGL as the host of waste management through CSR program was involved as the object of the study. For the subject, this study involved people of RT 26, Telihan Village, Telihan Village government, farmer group of RT 26 in Telihan Village, and masdarling compost management members as the recipients of CSR program benefits. To gain the information, the researchers invited some informants from PT Badak NGL Community Development unit, the board of RT 26 in Telihan Village, Telihan Village officers, the chief of farmer group of RT 26, and Masdarling members.

To collect the data, the researchers used in-depth interview, Focus Group Discussion (FGD), and secondary data review. For the assessment approach, standard documents, government regulations, research findings, community consensus and examples of similar events according to the existing local context were utilized to minimize the occurrence of over-claims / bias that is too high.

The analysis techniques used in this quasi-qualitative approach was triangulation (qualitative) and Social Return on Investment (SROI) (quantitative). In qualitative study, validity test covers the tests of credibility, transferability, dependability, and confirmability (Sugiyono, 2007). This assessment covered the period of 2018 until 2020 by considering the beginning and end of the program, namely from November 2018 until June 2020. Moreover, the evaluative calculation carried out in this study was based on the achievement of program and impact stated by the stakeholders. These stakeholders represented and became the key to the community-based compost management.

RESULTS AND DISCUSSION

For more than 4 decades of operation, PT Badak NGL has been an inseparable part of Bontang people. This company has consistently taken participative role in developing the people through CSR programs known as comdev (Community Development). Nowadays, this program is increasingly aimed at creating independency and empowerment of the community in the field of economy and social. PT Badak NGL social responsibility mission is to implement independent and environmental-based community empowerment and actively participate in the community development that further will produce shared values for both stakeholders. Thus, each CSR program has its

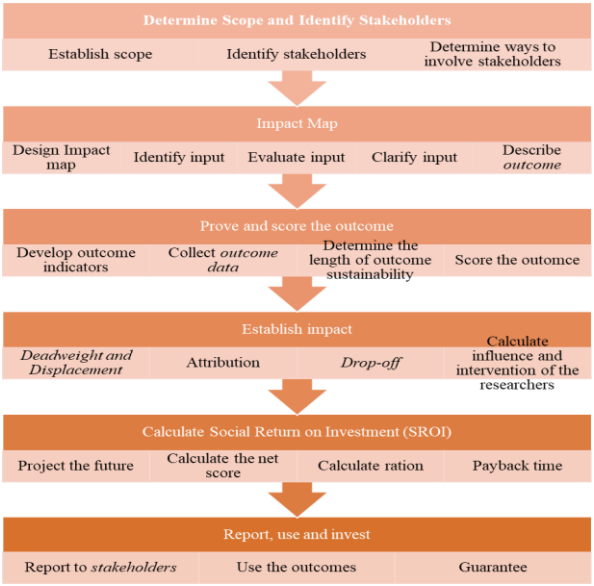
own characteristics in relation to natural conservation and shared values creation. So far, the programs have resulted multiple parties' cooperation values so that every monitoring from all aspects has been able to support the ongoing community empowerment activities. This is in line with the goal of SDGs and business strategy carried out by company to run its CSR programs.

Once of CSR programs that have been carried out by PT Badak NGL was community-based compost management in Telihan Village. This program was initiated due to the dense population and much household waste generated every day. This waste was thrown away carelessly and even piled up with no proper management and processing. In fact, there have been numerous ways to process household waste which can give advantages to natural conservation. Lack of people awareness to sort the waste surely contributed to the mixing of types of waste in this area. Regarding the above issues, the people in Kampung Masdarling with the guidance of PT Badak NGL started to initiate household waste management and turned it into compost by building the place for the processing called as Rumah Kompos or Compost House.

In this program, PT Badak NGL oriented towards the impact (outcome) for the community and not merely the output. To make ease of this impact, there was a need for an instrument to report the social report. The tool is called Social Return on Investment (SROI). SROI is an assessment method of program impacts using a financial quantification (monetization) calculation approach. It is expected to measure the score of program impact financially by comparing the score or value of the impact and the cost spent on investment. SROI helps describe whether a program financially runs well or not, and has either short-term or long-term benefits.

This method also helps identify parties receiving the good benefits and the amount of financial benefit received. The benefit of a program can be determined equally distributed to parties as the main targets or not, or even centered on one particular party and even disadvantage parties who are supposed to receive the benefit. SROI involves stakeholders of a program to analyze to explore impacts felt after the program was run. By doing so, SROI will give more comprehensive analysis compared to other investment tools, such as cost-benefit ration or incremental ratio (Purwohedi, 2016:7). The mechanisms for calculating SROI on the impact of community-based waste management done by PT Badak NGL according to its stages are based on Nicholls et, al's (2009). Those are as follows:

Figure 1. Stages of SROI Calculation of Community-Based Waste Management by PT Badak NGL



Source: Nicholls et al., (2009)

In the first stage of stakeholder identification, the stakeholders involved were those who had great influence and received the impact of this program the most, while those who lacked of influence and received less impact were not involved due to the waste of time and irrelevant results. In details, the stakeholders covered the people of RT 26 Gunung Telihan Village, Gunung Telihan government, farmer group of RT 26 Gunung Telihan, the members of Masdarling compost management group, and PT Badak NGL. The more stakeholders involved in the CST program will assure the company social legitimation and maximize long-term financial strength (Kiroyan, 2006).

Table 1. Stakeholders, Roles, and Impact

No	Stakeholders	Roles in the Programs	Impact
1	People of RT 26 Gunung Telihan	As the actors and recipient of the community-based compost management program.	Improve community awareness of environmental cleanliness in RT 26, Gunung Telihan.
2	Gunung Telihan Government	As the cleanliness manager around Gunung Telihan area.	Reduce the household waste of RT 26, Gunung Telihan Village in landfill.
3	Farmer group community of RT 26 Gunung Telihan	As the recipient and user of compost product.	Reduce the use of chemical fertilizer on farm. Increase the use of compost fertilizer on farm.
4	*Masdarling* compost management members	As the manager and doer of the community-based compost management program.	Increase the income of compost management members.
5	PT Badak NGL	As the initiator and supervisor of community-based compost management program.	Enhance the positive eimage of the company in empowering community and managing environment.

Source: Badak LNG CSR Program Report, 2020

After identifying the stakeholders to be involved, each of stakeholder's role in the program implementation and impact they owned; the researchers performed the impact calculation approach and financial assessment (monetization) for each of the impact parameters obtained. This Theory of change belongs to SROI stage 2, namely impact mapping. According to Lawlor, et al., (2008) theory of change refers to a story on how an organization or project makes a difference in the world; in other words, how it makes use of resources to carry out activities which later give some impact for individuals and community.

According to table 1 above, the researchers performed the impact and financial assessment (monetization) of each impact parameter. The results of the calculation approach are listed in table 2 below.

Table 2. Impact and Monetization Calculation Approach

No	Impact	Calculation Approach	Monetization Approach	Information Source
1.	**People of RT 26, Gunung Telihan Village**			
1.1.	Improve community awareness of environmental cleanliness in RT 26, Gunung Telihan	Counting the number of head of household who were willing to pay monthly fee for environmental cleaners. During the program from November 2018 to June 2020, the number of household heads who were willing to pay cleaning fees has increased from the beginning before the program started.	Values on changes were calculated using the amount of monthly cleaning cost approach by each family card in RT 26, Gunung Telihan	Interview with the chief of RT or neighborhood and the amount of money spent for monthly cleaning cost agreed by the people of RT 26, Gunung Telihan
2.	**Gunung Telihan Village Government**			
2.1.	Reduce the household waste of RT 26, Gunung Telihan Village in landfill	Calculate the number of daily waste heap of each household head that is brought to landfill. During the program, the people of RT 26, Gunung Telihan no longer threw their waste to landfill, but send it to the members of community who managed the compost.	Time the amount of waste heap by the family who no longer threw their waste to the landfill to the cost of montly waste heap management per ton in Bontang City	Monthly standard cost of waste management to each household head determined by Bontang City Depart of Environment
3.	***Farmer group community of RT 26 Gunung Telihan***			
3.1.	Reduce the use of chemical fertilizer on farm Increase the use of compost fertilizer on farm	Calculate the amount of compost which substituted chemical fertilizer. During the program, the farmer group community used compost more in their farming activities.	Calculate the saving cost of fertilizer based on the users by comparing the market price of chemical fertilizer and the organic one	The differences in price and usage of chemical and compost fertilizer
4.	***Masdarling compost management members***			
	Increase the income of compost management members	Calculate the average income of compost management outcome	Time the average of monthly income	The average additional income received by the managers

Source: PT Badak NGL CSR Program Report, 2020

Surely the above efforts are in line with the meaning of CSR as the overall contribution of business world to sustainable development by considering the impacts of economy, social, and environment of business activities (Sule in Kartini, 2009).

In the next phase, all impacts were calculated and estimated to obtain the number of impacts for each parameter. The phenomena of impacts (input, process, and outome) were collected based on the calculation of the total evidence. This can be data for a company in making its social reports such as what was done in the previous studies (Haniffa et al, 2005; Cowen et al., 1997; McGure et al, 1988; Roberts, 1992, Sembiring, 2005; Sayekti, 2006). The estimation and calculation of the above impacts are presented in the following table 3.

Table 3. Calculating the Number of Impact Events (Evidence)

No	Impact	Events Calculation
1. People of RT 26, Gunung Telihan Village		
1.1.	Improve people awareness of environmental cleanliness in RT 26, Gunung Telihan	Prior the program, there has been no household head willing to pay the monthly cleaning cost. During the program in November 2018, the community awareness improved and resulted the willingness to pay the cleaning cost of Rp. 40.000,- per month. In the first year of the program in 2018, there were 10 household heads willing to pay, while in the second year, there increased up to 40, and in 2020, there added 10 household heads willing to pay the cost. Here, changes were calculated using the approach from the amount of monthly fee by household heads (KK) in RT 26, Gunung Telihan. The equation is as follows: Year 2018 = 10 KK X IDR. 40,000.00 X 2 months = IDR. 800,000.00,- Year 2019 = 40 KK X IDR. 40,000.00,- X 12 months = IDR. 19,200,000.00,- Year 2020 = 10 KK X IDR. 40,000.00,- X 6 months = IDR. 2,400,000.00,-
2. Gunung Telihan Village Government		
1.2.	Reduce the household waste of RT 26, Gunung Telihan Village in landfill	Before the program, people directly threw their waste to trash bin or Bontang Lestari landfill. During the program, the people of RT 26, Gunung Telihan no longer did their previous habit, and started to collect it to the compost managers.

		The total waste heap that has been managed during this program was: Year 2018 amounted to 1,2 ton (Nov – Dec 2018) Year 2019 amounted to 36 ton (Jan – Dec 2019) Year 2020 amounted to 21,6 ton (Jan – June 2020) Thus, changes in this parameter were calculated by timing the amount of waste heap resulted by household heads who no longer threw their waste to the landfill to the monthly cost of waste heap management per ton in Bontang City. The calculation was based on the amoun of the waste heap recorded during this program, namely: Year 2018 amounted to 1,2 ton Year 2019 amounted to 36 ton Year 2020 amounted to 21,6 ton The waste cost management per ton was based on the average of waste management standard cost regulated by Bontang City Department of Environment, namely IDR. 700,000.00,- per ton It was calculated as follows: Year 2018 = 1,2 Ton x IDR. 700,000.00,- = IDR. 840,000.00,- Year 2019 = 36 Ton x IDR. 700,000.00,- = IDR. 25,200,000.00,- Year 2020 = 21,6 Ton x IDR. 700,000.00,- = IDR. 15,120,000.00,-
3. Farmer Group Community of RT 26, Gunung Telihan Village		
1.3.	Reduce the use of chemical fertilizer on farm Increase the use of compost fertilizer on farm	Before the compost management was run, most of the farmer household heads used chemical fertilizer for farming. Within 2 years of the program implementation, the farmer group community started to use compost for their farming. Once the program has been done, there found 58 farmers changed to compost produced by *Masdarling* group. By using compost, there were savings for purchasing and using chemical fertilizer. Thus, the changes were estimated from calculating the cost savings in the use of fertilizers based on the amount of fertilizer use with a comparison of the market price of chemical fertilizers with organic fertilizers.

		Chemical fertilizer cost: Year 2018 = 900 kg x @IDR. 1,800,00,- = IDR. 1,620,000,00,- Year 2019 = 15.480 Kg x @IDR. 1,800.00,-= IDR. 27,864,000.00,- Year 2020 = 1.800 Kg x @IDR. 1,800.00,- = IDR. 3.240.000.00,- Compost cost Year 2018 = 1.950 kg x @IDR. 500.00,- = IDR. 975,000.00,- Year 2019 = 33.540 kg x @IDR.500.00,- = IDR. 16,770,000.00,- Year 2020 = 3.900 kg x @ IDR. 500.00,- = IDR. 1,950,000.00,- The savings are as follows: Savings in 2018 = IDR. 1,620,000.00 – IDR. 975,000.00 = IDR. 645,000.00,- Savings in 2019 = IDR. 27.864.000.00 - IDR. 16,770,000.00 = IDR. 11,094,000.00,- Savings in 2020 = IDR. 3,240,000.00,- - IDR. 1,950,000.00,- = IDR. 1,290,000.00,-
4. Masdarling compost management members		
1.4.	Increase the income of compost management members	Through this program, the compost managers gained additional income from the selling of the products. There were three people in charge of the compost management program. Therefore, changes in this parameter were estimated by calculating total average income from the compost management timed to total monthly average. In 2018 the average income was IDR. 500,000.00,- per person, and in 2019 the average was IDR. 800,000.00,- per person. Those were calculated as follows: Year 2018 IDR. 500,000.00,- x 3 people x 2 months = IDR 3,000,000.00,- Year 2019 IDR. 800,000.00,- x 3 people x 12 months = IDR. 28,800,000.00,- Year 2020 IDR. 800,000.00,- x 3 people x 6 months = IDR. 14,400,000.00,-

Source: PT Badak NGL CSR Program Report, 2020

SROI scoring and calculation can be used as a method to examine the "return" of business from social activities carried out by a company (Lingane & Olsen, 2004). This stage covers the process of calculating all information and assumptions to become financial values. By predicting currency changes, the benefit values obtained will be converted into a present value. SROI values are collected from calculating present value and value of input ratios. The followings are the calculation of evaluative impact of the community-based compost management program:

Table 4. The Total Results of Impact Calculation and SROI Calculation of Community-based Compost Management Program

No	Information	2018	2019	2020	Total
A	**Input**				
1	Compost Management Program fund [1)]	24.642.000	44.112.000	350.000	69.104.000
	Total A	**24.642.000**	**44.112.000**	**350.000**	**69.104.000**
B	**Outcome**				
1	***People of RT 26, Telihan Village***				
1.1.	Inmprove public awareness of cleanliness	800.000	19.200.000	2.400.000	22.400.000
	Total B.1.	**800.000**	**19.200.000**	**2.400.000**	**22.400.000**
2	***Telihan Village Government***				
2.1.	Reduce the household waste of RT 26, Gunung Telihan Village in landfill	840.000	25.200.000	15.120.000	41.160.000
	Total B.2.	**840.000**	**25.200.000**	**15.120.000**	**41.160.000**
3	***Farmer Group Community of RT 26, Telihan Village***				
3.1.	Reduce the use of chemical fertilizer on farm	645.000	11.094.000	1.290.000	13.029.000
	Total B.3.	**645.000**	**11.094.000**	**1.290.000**	**13.029.000**
4	***Masdarling Compost Management Members***				
4.1.	Increase the income of compost management members	3.000.000	28.800.000	14.400.000	46.200.000
	Total B.4.	**3.000.000**	**28.800.000**	**14.400.000**	**46.200.000**
	TOTAL OUTCOME	**5.285.000**	**84.294.000**	**33.210.000**	122.789.000.
	Deadweight [2)]	**0**	**0**	**0**	**0**
	Attribution [2)]	**0**	**0**	**0**	**0**
	DropOff [2)]	**0**	**0**	**0**	**0**
	Total Outcome per year after discounted	**5.285.000**	**84.294.000**	**33.210.000**	**122.789000**
.	**Present Value [3)] (2018: r=6% and 2019-2020: r=5%)**	**4.985.849**	**76.457.143**	**28.688.047**	**110.131.039**
	SROI Ratio	**0,20**	**1,73**	**81,97**	**1,59**

Source: Source: PT Badak NGL CSR Program Report, 2020

The amount of management program fund taken as the input was the one that was spent by PT Badak NGL. Deadweight value, Attribution value and Drofoff value were assumed to be zero. The zero value was because all of the existing impact parameters had values

that would not have happened without the intervention carried out by PT Badak NGL. In this calculation, the interest rate (r) referred to the interest rate set by Bank Indonesia in 2018 with an average of 6% and in 2019 - 2020 with an average of 5%.

Based on the calculation results, the researchers obtained SROI ratio of 1.59, meaning that every 1 rupiah (RP) investment would gain impact or outcome of 1.59 rupiah. As stated in e-book of New Economics Foundation (2018), investment on social activities deserves to be sustained or increased when the SROI ratio gains the results more than 1:1. This program earned more benefit than the investment value. Economically, the program could be said as successful. Even though this program was very vulnerable, the expected impact of strengthening social values on key stakeholders was not achieved.

The parties who received the greatest impact from this Community-based Compost Management were the compost managers (44.76% of the program total outcome) and Gunung Telihan government (30.44% of the program total outcome). By having compost management, the compost managers can earn much money as additional income to meet family needs. Meanwhile, Gunung Telihan government gets some help in the reduction of waste heap in their village. Since the waste is processed into compost, the amount of heap sent to landfill will reduce as well.

Even though the benefit received by the farmer group community of RT 26, Gunung Telihan was relatively low, namely 9.75% of the total outcome, they have got some improvement in their practice, particularly they start using compost rather than chemical fertilizers. This new habit is surely environmental-friendly. Sutejo (2002) states that organic fertilizers play more significant functions compared the organic one, namely can loosen the topsoil, increase the population of micro-organisms, increase water absorption and storage capacity, which overall can increase soil fertility. In addition, the use of compost (organic) can increase crop yields and reduce soil damage caused by the use of chemical fertilizers.

CONCLUSION

The Community-based Compost Management Program done in Kampung Masdarling in the period of 2018-2020 gained SROI ratio of 1.59 or slightly above 1. It proves that every 1 rupiah invested has a benefit of 1.59 rupiah. Regarding this achievement, this program can be categorized as feasible. Its highest benefit portion was felt by the compost managers and Gunung Telihan government in form of additional income and waste savings due to the waste processing management by the people of RT 26, Gunung Telihan.

To maintain this benefit, it is suggested that in retaining relevant values regarding the compost management, the stakeholders can do the following actions: Badak LNG management and beneficiaries can formulate together an effective and humane method of monitoring/controlling so that maximum benefits can be obtained from this program, facilitate capacity building activities for program managers that can be carried out regularly and continuously, and facilitate networking with other parties so that the activities and benefits of this program can be wider.

REFERENCES

Acharya, Nikhil S. 2010. *Social Returns on Investment (SROI): A proposed modified method for Nonprofit Organizations (NPO's)*. University of Minnesota.

Arvidson, Malin. 2014. The Social Return on Investmentin Community Be Friending. *Jurnal Public Sector Management.*

Bungin, B. (2020). *Post-Qualitative Social Research Methods.* Kencana Prenadamedia.

Cahya, B. T. (2014). Transformasi Konsep Corporate Social Responsibility (CSR*). Iqtishadia. Vol. 7 No. 2. September 2014. Hlm. 203-222.*

Cofie, O. O., Drechsel, P., Agbottah, S., & Veenhuizen, R. van. (2009). Resource recovery from urban waste: Options and challenges for community-based composting in sub-Saharan Africa. *Desalination, 248*(1–3), 256–261. https://doi.org/10.1016/j.desal.2008.05.063

Donnie Cahya Gumilang Silalahi, Haryo Santoso, H. S. (2017). *[Analisis Sosial Return On Invesment Pada Kewirausahaan Sosial Studi Kasus Di Upreneur AIESEC UNDIP].*

Jalal & Kurniawan, F. (2013). *[Investasi Sosial: Perspektif CSR Strategis untuk Pengembangan*

Masyarakat oleh Perusahaan. Social Investment Indonesia: The Indonesian Social Investment Forum].

Khairunnisa, K., Pribadi, A. B., & Prabowo, F. S. A. (2019). Analysis of Social Return On Investment (SROI) To Measure The Social, Environment, And Economics Impact On The National Fattening Sheep Program (Studi At Pesantren Al-Ittifaq*). Jurnal Ilmu Sosial Politik Dan Humaniora, 2(2), 33–42.* https://doi.org/10.36624/jisora.v2i2.44.

Kiroyan, Noke, 2006. Good Corporate Governance (GCG) dan Corporate Social Responsibility (CSR) Adakah Kaitan di Antara Keduanya?", *Economics Business Accounting Review, Edisi III, SeptemberDesember 2006, Hal. 45-58.*

Lawlor, E., Neitzert, E., & Nicholls, J. (2008). Measuring Value: A Guide to Social Return on Investment (SROI). *The New Economics Foundation, Second edition*, *56.* https://commdev.org/wp content/uploads/2015/06/Measuring-Value-A- Guide-to-Social-Return-on-Investment.pdf

Meilanny Budiarti Santoso, Rivani Adinegara, Slamet Usman Ismanto, Idim Mumajad, H. M. (2018). Assessment of the Impact of Csr Implementation Social Investment. *Jurnal Pemikiran Dan Penelitian Administrasi Bisnis Dan Kewirausahaan, 3(2), 153–167*.

Moody, Michael et all. 2015. Measuring Social Return on Investment : Lessons From Organizational Implementation Of Sroi In The Netherlands And The United States. *Jurnal Nonprofit Management & LeadershipVol: 26 No. 1.*

Nicholls J., Lawlor E., Neitzer E., Goodspeed T. 2012. A guide to social return on investment. London: Cabinet Office.

Nicholls, J., Lawlor, E., Neitzer, E., & Goodspeed, T. (2009). A guide to Social Return on Investment. Development, 3(January), 55. https://doi.org/10.1108/17508610780000720

Nurbaiti, S. R., & Bambang, A. N. (2017). Factors Affecting Community Participation in the Implementation of Corporate Social Responsibility Program. *Proceeding Biology Education Conference, 14*(1), 224–228.

Pirsch, J., Gupta, S., & Grau, S. L. (2007). A framework for understanding corporate social responsibility programs as a continuum: An exploratory study. *Journal of Business Ethics, 70*(2),125–140.https://doi.org/10.1007/s10551-006-9100-y

Purwohedi, Unggul. 2016. *[Social Return on Investment (SROI): sebuah teknik untuk mengukr manfaat/dampak dari sebuah program atau proyek. Yogyakarta: Leutikaprio].*

PT Badak NGL. 2020. *Laporan Program CSR Tahun 2020*. Bontang: PT Badak NGL.

PT Badak NGL. 2020. *Menuai Rupiah dari Sampah Ala kampung Masdarling*. Bontang: PT Badak NGL.

Rusdin. (2016). Corporate Social Responsibility (CSR) Disclosure and the Implications of Earning R.

Rosyida, I., & Tonny Nasdian, F. (2011). [*Partisipasi Masyarakat Dan Stakeholder Dalam Penyelenggaraan Program Corporate Social Responsibility (Csr) Dan Dampaknya Terhadap Komunitas Perdesaan]*. Sodality: *Jurnal Sosiologi Pedesaan, 5*(1), 51–70. https://doi.org/10.22500/sodality.v5i1.5832

Saleh, A., & Sihite, M. (2020). [*Strategi Komunikasi untuk Program Corporate Social Responsibility dalam Pemberdayaan Masyarakat]*. *Jurnal Interaksi : Jurnal Ilmu Komunikasi, 4*(1), 98–105. https://doi.org/10.30596/interaksi.v4i1.4134.

Sekito, T., Prayogo, T. B., Dote, Y., Yoshitake, T., & Bagus, I. (2013). Influence of a community-based waste management system on people's behavior and waste reduction. *Resources, Conservation and Recycling, 72*, 84–90. https://doi.org/10.1016/j.resconrec.2013.01.001

Sugiyono. (2007). *Metode Penelitian Kuantitatif Kualitatif dan R&D.* Alfabeta.

Sugiyono. (2017). *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D).* Alfabeta.

Soesilowati, E., Indriyanti, Dyah R., & Widiyanto. 2011. Model Corporate Social Responsibility Dalam Program Pemberdayaan Petani Holtikultura. Jurnal Ekonomi Pembangunan. Vol. 12, No.1. Hal. 102-117 esponse Coefficient (ERC). *Jurnal AdBispreneur. Vol. 1 No. 2 Agustus 2016. Hlm. 153-164.*

The SROI Network. (2012). *A Guide to Social Return on Investment.* UK Cabinet Office: Office of the Third Sector.

Undang-Undang Republik Indonesia. No. 18 Tahun 2008. Tentang Pengelolaan Sampah. Jakarta.

United Nations Global Compact (2013). *Global Corporate Sustainability Report 2013* http://www.unglobalcompact.org/docs/about_the_gc/Global_Corporate_Sustainability_Report2013.pdf Downloaded: 2014.11.12.