Social Return on Investment of Rice Programme in Indonesia

DGD Programme 2017-2021 implemented by Rikolto in Indonesia

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Executive Summary

The study aimed to calculate the Social Return on Investment (SROI) value of the Rice Programme implemented by Rikolto in Indonesia from 2017 to 2021. With various considerations, this study focused on the programme implementation in the Boyolali area. This SROI analysis primarily aimed to see the performance of programmes financed by DGD. DGD financing covered interventions for organic rice and SRP. Thus, the scope of this analysis was the programme implementation in the Boyolali District in 2017-2021, which included activities of producing organic rice since 2017 and SRP application since 2019.

The SROI calculation of the Rice Programme employed a 5% discount rate and an exchange rate per Euro of IDR 17,400. Since the study was conducted in November 2020 to calculate the value of the SROI Programme from 2017 until the end of 2021, discounting was done with 2017 as the base year. The benefit figures displayed for 2017 to 2019 were the total figures for each year concerned, likewise with the investment figure. However, for 2020, the benefit figures shown were the cumulative figures for January 2020 to October 2020. Meanwhile, the investment figure for 2020 was the figure for the entire year. The figures for 2021 were assumed to be as same as in 2020, except for the overhead of Rikolto Java Office, given various considerations such as uncertain market factors due to the Covid-19 pandemic.

This programme's SROI value is 1.62, meaning every Euro invested by Rikolto and its partners has created a benefit for society of (at least) Euro 1.62. Actual benefits and returns could be higher because several positive changes that can be attributed to the programme could not be monetised. These include, among others, benefits for retailers, improved sector performance to be delivered by API, social empowerment of women and youth who engage in the organic rice production and marketing, rice-derivative and non-rice business opportunities, improved management capacities of cooperatives, benefits brought about by widened and stronger networks, to name a few of the most important benefits not captured by the SROI ratio.

The Rikolto team has identified three different interventions (divided into seven sub-interventions) that they wanted to assess against seven criteria of effectiveness. Of the seven sub interventions, business documents, marketing, and lobby and advocacy were considered as the most expensive. Capacity building supporting Intervention 2, organic input production, SRP pilot, and capacity building supporting Intervention 1 were perceived as 'cheap' sub-interventions. By dividing the weighted score against costs, the most efficient sub-interventions are capacity building supporting Intervention 2, organic input production, and SRP pilot. Meanwhile, business documents, marketing, and lobby and advocacy are the 3 sub-interventions with the lowest efficiency ratio. Even though its efficiency ratio is the lowest, intervention in business planning and documentation is considered to be the most crucial gap in the FO's performance: being able to develop a business plan with all due documents as needed. Strengthening this capacity will encourage the emergence of a more effective business environment. In return, with a more robust business culture, new business opportunities will emerge.

1. Background - The Rice Programme

APOB (Asosiasi Petani Organik Boyolali) Cooperative is an organic rice producer in Boyolali District, Central Java Province. In 2016, the APOB Cooperative ventured to lease an old rice mill unit to process and sell organic rice. APOB tried to create more produce by renting rice mill units until 2018. In March 2019, APOB succeeded in getting government assistance in the form of a rice mill unit, where APOB had to buy the land to place the rice mill unit. The existence of the new rice mill unit has much helped APOB to develop further. In addition to selling organic rice, the rice mill unit is also used to process healthy rice purchased from members who are already involved in the Internal Control System (ICS) of the organisation but not organic certified.

Some capacity building activities have been given to farmers to improve organic cultivation as APOB manages to increase the number of organic farmers every year. The market development of the organic rice has been done by identifying and looking for buyers not only from big cities but also from smaller cities. The new rice mill unit considerably contributes to expand the marketing opportunities of APOB.

APOB has held organic youth camp activities for three years; this activity aims to increase youth participation in rice farming and business activities. Many young people prefer to work in factory than on farm. As a consequence, agriculture sector dominates by aging generation. Through the camp, APOB introduced organic farming from cultivation to the market to young people. APOB also provided training in marketing in order to enable young people to sell organic rice and healthy rice to local market.

The Mentari Sinari Alam Cooperative (MSA) was formed on January 5, 2018, in Tasikmalaya Regency, West Java. MSA Cooperative started its main business in the field of production and sale of organic rice with various types and varieties that have been certified domestically and internationally in EU and USA. MSA cooperative activities involve more young people because most MSA administrators are still young. MSA has held five organic youth camps, and they have a Whatsapp group to communicate with each other. Most MSA farmers apply SRI and rice-fish farming because of the long-standing local culture. The MSA market is mostly in the local market, while for the market outside Tasikmalaya is still approaching several buyers.

The APPOLI (Aliansi Petani Padi Organik Boyolali) Cooperative (so-called KOPAPPOLI) in Boyolali District, Central Java Province underwent an organisational change from previously called as the APPOLI Association. This change aimed to improve organisational management and strengthen the involvement of members of the organisation. The APPOLI Cooperative has a broad domestic organic rice market, in addition to that APPOLI once exported rice to Australia in 2018 through direct sales to Australian buyers. Due to a solid ICS of the APPOLI, the Boyolali District government asked for support of APPOLI in the preparation of organic certification for ginger and vegetable farmers in Boyolali District. Furthermore, KEHATI, a national NGO in Jakarta contracted APPOLI to set up a farmer organisation and develop certification for farmers in Sangihe Talaud, North Sulawesi Province close to the Philippines.

The field of APPOLI farmers are mostly in semi-irrigated areas where the farmers can only plant rice twice a year. The farmers also grow other products as alternative incomes such as Chrystal corn, soybean, mug bean and ground peanut. Youth are an essential group in APPOLI, and they receive extensive training from organic cultivation to marketing. At the same time, for women farmers groups, APPOLI developed a business unit to process rice crackers made from broken rice, which is sorted rice that will be marketed to buyers. Some buyers build good relationship with APPOLI because the

cooperative commits to produce good quality rice and timely delivery. In addition, APPOLI is a member of the Farmers Economy Institution formed by the Agriculture Agency of the Boyolali District.

In 2018, Rikolto in Indonesia started a pilot on applying Sustainable Rice Platform (SRP) standard (further referred to as SRP) with 560 farmers in Boyolali District (Central Java) and Tasikmalaya District (West Java). SRP becomes mandatory for all Rikolto offices that are members of the Rikolto International Rice Cluster. Cooperation to apply SRP is done by mutual learning among regions. It is agreed that SRP becomes an essential part of the Rikolto's rice programme.

Three Rikolto partner cooperatives and farmer members run the SRP pilot, and in 2019 they started the SRP initiative. Rikolto partnered with the national farmer organisation Indonesia Farmer Alliance so-called API (Aliansi Petani Indonesia) in the first year of 2019 to influence government at the national level as well as the private sector to get to know SRP better and apply it to the farmers supplying the rice companies. The policy approach undertaken by the API that is directed towards Indonesia will adopt SRP standards, and soon an Indonesian National Chapter of SRP will be formed to involve more stakeholders in developing and implementing SRP in Indonesia.

Rikolto encourages cooperatives to be more advanced in terms of doing business, both the organic rice business and its derivative products. Thus, the cooperative can absorb farmer members' products to the fullest. This activity can automatically become an attraction for non-member farmers to get involved in cooperative. Also, production needs to have continuity in supply of agricultural input at affordable prices. Cooperatives need to find a market to sell their products, and cooperatives need to be assisted in running cash co-financing for their farmer members who produce organic rice.

All cooperatives have also been quite stable an organic rice supplier organizations among buyers at the national level. Therefore, it is time for cooperatives to expand the market by not only relying on existing buyers but also being able to sell with their own brands directly to consumers or other marketing channels with creative marketing methods.

Image 1. Rikolto's Theory of Change (ToC) for SCA 1 as a realistic way of bringing about the desired change.

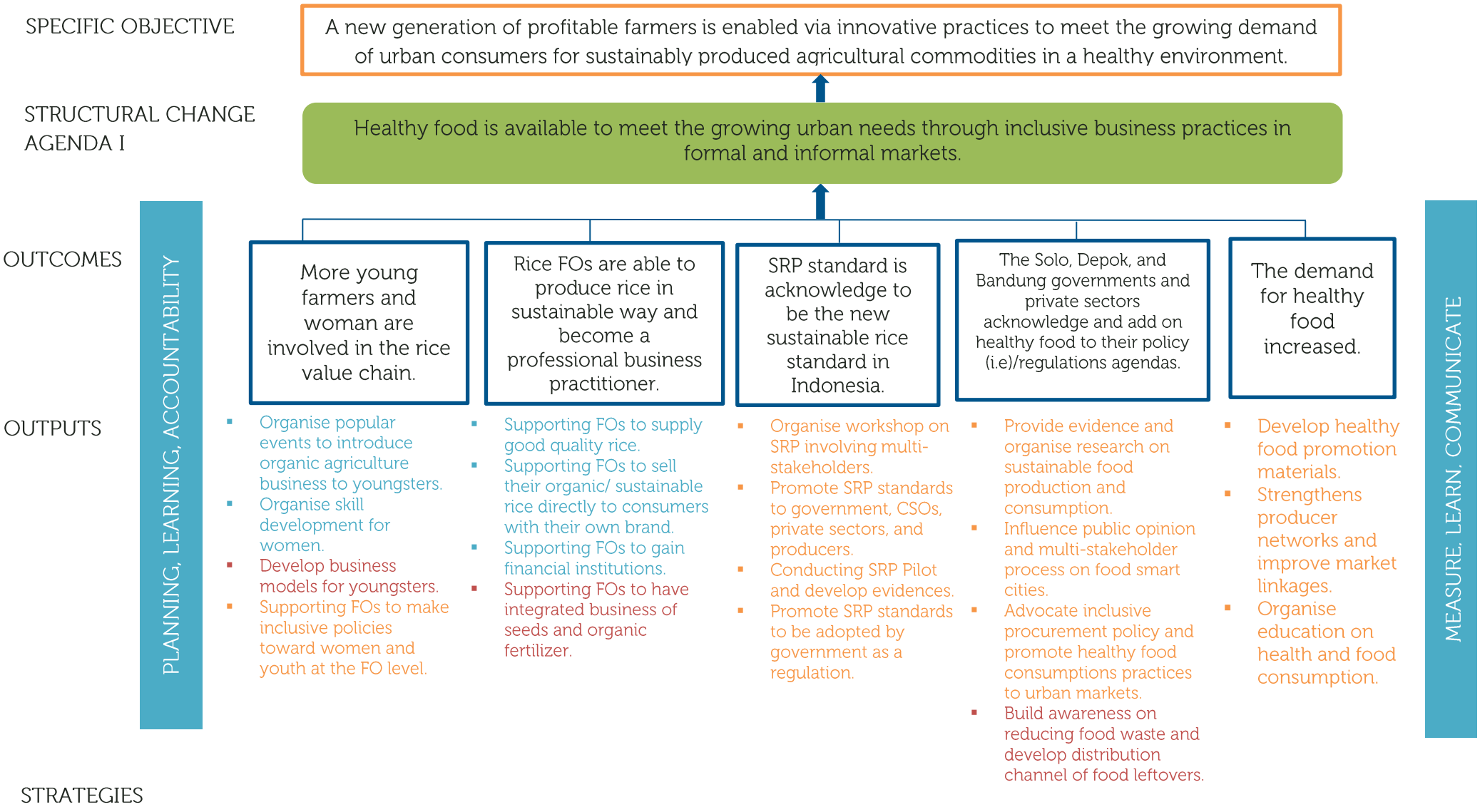

Table 1. Pathway of Change - Intervention I

INTERVENTION	OUTPUT	IMMEDIATE OUTCOME	INTERMEDIATE OUTCOME	ULTIMATE OUTCOME
Enabling environment for gender sensitiveness and youth inclusiveness of the value chain	Supporting FOs to organise popular events and introduce organic agriculture business to young farmers and youths	Young farmers and urban youths are involved in agricultural practices and a business of farmer organisations	Young farmers manage a business unit of FOs and urban youths promote organic rice	More young farmers and women are involved in rice value chain
	Supporting FOs to organise skill and knowledge developments of women farmers	Women farmers participate in activities and meetings of farmer organisations	Women farmers get involved in organisational structure	
	Supporting FOs to make policies at the FO level that are more inclusive toward women farmers and youths	FOs know how to develop an action plan to make inclusive policies towards women farmers and youth	FOs stipulate more inclusive policies towards women farmers and youth	

Table 2. Pathway of Change - Intervention 2

INTERVENTION	OUTPUT	IMMEDIATE OUTCOME	INTERMEDIATE OUTCOME	ULTIMATE OUTCOME
Facilitating and enabling rice farmer organisations to produce rice in sustainable way and become professional business practitioners to meet the new market demands.	Supporting FOs to produce documents, such as business plan etc. to meet the requirements of financial services	FOs produce documents required by financial services	Documents are available	FOs gain services from financial institutions to support their business
	Supporting FOs to access financial services	FOs know how to access the services of financial institutions and financial i nstitutions are approached	FOs comply with the requirements to access financial services and financial institutions are convinced by the financial performance of FOs	
Facilitating and enabling rice farmer organisations to produce rice in sustainable way and become professional	Organising capacity building activities on seed breeding and organic liquid fertiliser production	FOs know how to breed seed and produce organic liquid fertilisers	FOs develop an action plan to breed seed and produce organic liquid fertilisers	FOs have an integrated business of seeds and organic fertilisers to support the needs of

business practitioners to meet the new market demands.	Supporting FOs to breed seeds of local rice variety that meet market requirements	FOs breed seeds of local rice variety that meet market requirements	Seeds of local rice variety that meet market requirements are available	farmer members and non-members of FOs
	Supporting FOs to produce organic liquid fertilisers to meet the needs of farmers	FOs organic liquid fertilisers meet the needs of farmers	Good quality organic liquid fertilisers are available	
	Supporting FOs to have organic certification and other documents to market rice	FOs gets domestic organic certification and other document to meet the requirements of modern market.	FOs improve the rice production on sustainable way	FOs produce rice in sustainable way and meet the market standards
	Supporting FOs to conduct pilot on SRP standard	FOs' members implement the SRP standard and FO monitor and evaluate the SRP implementation	FOs' members produced the rice in sustainable way	
	Introducing FOs to modern market environments	FOs are familiar with modern market's requirements	FOs produce and process rice according to modern market's requirements	FOs supply the rice market with premium rice that meet the requirements of the buyers, resulting in engaging in long-term business contracts with the buyers.
	Organising training on a bookkeeping of stocks, milling, processing and warehousing	Staff know how to document all receipts	Staff document the receipts manually and electronically in balance sheets	
	Supporting FOs to organise training on an internal control system	FOs' staff and members know what to document in order to comply with ICS	Good ICS with Standard Operational Procedure (SOP) is implemented	
	Supporting FOs to have organic certification and other documents to market rice	FOs gets domestic organic certification and other document to meet the requirements of modern market.	FOs improve the rice production on sustainable way	
	Supporting FOs to conduct pilot on SRP standard	FOs' members implement the SRP standard and FO monitor and evaluate the SRP implementation	FOs' members produced the rice in sustainable way	

	Organising training on post-harvest and processing	FOs have knowledge and skills in post-harvest and processing	FOs and their members implement improved post-harvest and processing techniques	
	Introducing FOs to market their organic/healthy rice directly to consumers	FOs know the basis of the consumers that they can access	FOs develop an action plan to market their organic/healthy rice directly to the consumers	FOs sell their organic/healthy rice directly to consumers with their own brand
	Supporting FOs to develop online marketing for their organic rice	Online marketing is established	FOs market their organic rice online	

Table 3. Pathway of Change - Intervention 3

INTERVENTION	OUTPUT	IMMEDIATE OUTCOME	INTERMEDIATE OUTCOME	ULTIMATE OUTCOME
Promoting SRP Standards to the main stakeholders (central government, CSOs, FOs, private actors) to be adopted in Indonesia.	Organizing workshops on SRP involving multi-stakeholders (FAO, private actors, CSOs, Ministry of Trade, and Ministry of Agriculture).	API produces concept paper promoting SRP to be proposed to the government.	Government, private sectors, CSOs, and farmers collaborate to implement SRP standards.	The Indonesian government acknowledges the standards through the ministerial decree (agriculture ministry) and private sectors sell SRP rice
	Supporting API to promote SRP standards to private sectors.	Private sectors understand SRP standards.	Private sectors support SRP standards as the new sustainability standards by buying the rice with SRP standards.	
	Supporting API to develop policy brief on SRP and promote it to government.	Policy brief on SRP standards is used by government and private sectors in developing regulations/ guideline on sustainable rice production.	Indonesia government produce guideline on sustainable rice production.	
	Supporting API to develop SRP module which adopts local value in agriculture practices in Indonesia to be used by the farmers.	SRP module which adopts to the local value is developed.	SRP module which adopts to the local value is used by farmers.	
	Promoting SRP standards to producers and consumers	Producers and consumers are aware the need of sustainable rice production standard.	Rice labelled SRP is sold in formal and informal market in Indonesia	

2. Boundaries – Objective and Scope

The objective of the study is to calculate the Social Return on Investment (SROI) value of the Rice Programme implemented by Rikolto in Indonesia for the period of 2017-2021. As with the SROI study in general, some important factors in the analysis are: access to programme investment data, information related to the benefits of the Programme, information on how the programme is implemented, and direct observation in the field to validate information about the impact of the programme.

With the various considerations mentioned above, this study focuses on the implementation of the programme in Boyolali area. The SROI analysis does not include programme implementation in Tasikmalaya, because the programme was discontinued in early 2019 due to the local government preference for interventions related to agricultural infrastructure, not capacity building. Thus, the programme in Tasikmalaya only lasted 2 years (2017 and 2018) and it would be inappropriate to analyse using the SROI method. This programme was designed to have a significant impact starting in the second year (2018). So, when this programme was terminated in 2019, the implementation of the programme in Tasikmalaya would not yet have reached its intended performance level, hence an assessment of return on investment would not be feasible.

This SROI analysis primarily aims to see the performance of programmes financed by DGD. DGD financing covered interventions for organic rice and SRP. Thus, the scope of this analysis is the implementation of programmes in the Boyolali District in 2017-2021, which includes activities of producing organic rice since 2017 and SRP implementation since 2019.

This study intends to look at the changes that occur along the supply chain, so that validating the changes achieved with programme stakeholders at each stage of the supply chain is a critical process. The programme stakeholders and their roles in the supply chain will be explained in the section 4 of Stakeholder Identification.

3. Stages of the Study

This study was conducted in November - December 2020, when the Covid-19 pandemic was still happening in Indonesia. Information gathering activities in the field were carried out in the first week of November, when the number of additional cases of Covid-19 was still increasing at the national level. However, information gathering and validation activities in the field did not experience significant obstacles. Of course the health protocol set limits on contacts with respondents, but it was followed completely while in the field.

The stages and activities of this study are as follows:

Table 4. Staging, Technique, Output

Stages	Activities	Outputs
1. Secondary data research.	Desktop research	Information gathered from: ▪ Internet searching, ▪ Mass media, ▪ Books and articles, and

		▪ Other relevant documents.
2. Rikoto's Rice document review and interview with management.	▪ Document collection and analysis ▪ Discussion ▪ Kick-off meeting	▪ Set of information on Rikolto's regulation, SOP, code of conduct related to the Programme. ▪ Complete documents of Rice Programme planning (ToC or LFA), implementation, monitoring, MTR Report, detailed Rice Programme budget. ▪ Travelling plan and itinerary
3. Detailed research tools development.	Consultant and Efficiency Champion Candidate discussion	Research tools: ▪ Detailed outcome map and boundaries ▪ Detailed Social Benefit-Cost Worksheet ▪ List of interviewee ▪ Interview guideline ▪ Observation objects ▪ Research scenarios.
4. Field research.	▪ In-depth interview ▪ observation	▪ Local context snapshot (stakeholder activities and locations). ▪ Data on relevant outcomes and indicators and confirmation ▪ Data on relevant stakeholders and confirmation ▪ Data on relevant financial and economic prices or benchmarking ▪ Unintended outcomes and stakeholders' contribution confirmation ▪ Additional secondary data. ▪ Interim Report
5. Analysis and conclusion.	▪ Social benefit confirmation, calculation and benchmarking ▪ SROI Calculation ▪ Efficiency analysis matrix	▪ Refined detailed social benefit-cost worksheet. ▪ SROI value. ▪ Rice Programme efficiency score (MADM)
6. Recommendation.	▪ Consultant discussion ▪ Workshop with Rikolto Indonesia's Programme management	▪ Final Report

4. Stakeholder Identification

Programme documents show that the relevant stakeholders for this study are farmers whose paddy fields have obtained organic certification, Farmer Organisations/FOs (i.e., APOB and APPOLI), distributors, retailers, women, youth, consumers, Indonesia Farmers Alliance (API), Boyolali Agricultural Service Office, and Boyolali Cooperative Service Office.

Organic land certification for farmers was facilitated by APOB and APPOLI. APOB facilitated certification for 300 farmers (who are members of 7 farmer groups) with total area of 101.65 hectares. While APPOLI facilitated certification for 440 farmers (who are members of 10 farmer groups) with total area of 160.53 hectares. APOB's certificate facilitation was carried out in 2017, while the one facilitated by APPOLI was carried out in 2018. However, when this study was conducted, the number of farmers whose land was certified organic with APPOLI facilitation

decreased to 312 people with total area of 121.53 hectares. In 2018, there was an organisational change of APPOLI, which resulted in a reduced number of participating farmers.

Besides facilitating organic certification, APOB and APPOLI purchased unhulled rice produced by farmers from certified land. However, due to operational limitations, APOB and APPOLI have not been able to buy all farmers' product. APOB could buy from a maximum of 78 farmers, while APPOLI could purchase from 55 farmers. APOB and APPOLI's sales volume showed an increasing trend. Consecutively from 2017 to June 2020, APOB sales (bulk and retail) were 43.2 tonnes, 83.7 tonnes, 98.9 tonnes and 64.9 tonnes (January - June 2020 figures). Meanwhile, APPOLI's sales volume (bulk only) in 2018 - 2020 were 21.3 tonnes, 55.3 tonnes and 57.6 tonnes, respectively (January - June 2020 figures).

APOB and APPOLI also conducted/facilitated training and workshops (field schools) for farmers. With regards to women and youth, training was conducted according to their needs. The women who were involved in the training also participated in rice processing and retail marketing activities in their respective regions. Meanwhile, youth mainly contributed to product marketing in the retail of their respective regions.

Table 5. Stakeholders and Their Roles in the Programme

No	Stakeholders	Roles in the Programme						
		Capacity Building	Production - Cultivation	Processing	Distribution/ Trading	Business Operation	Consumption	Lobby-Advocacy/ Policy Changes
1.	FO KOPAPPOLI-Boyolali	x		x	x	x		
2.	FO APOB-Boyolali	x		x	x	x		
3.	Farmers		x				x	
4.	Women		x	x	x	x		
5.	Youth		x	x	x	x		
6.	Buyers/Distributors				x			
7.	Retailers				x			
8.	Boyolali Agricultural Service Office (Dinas Pertanian Boyolali)							x
9.	Boyolali Cooperative Service Office (Dinas Koperasi Boyolali)							x
10.	Consumers						x	
11.	Indonesia Farmers Alliance (Aliansi Petani Indonesia, API)							x

Due to the small business volume, APOB and APPOLI are only able to serve organic rice purchases from 5 - 6 regular buyers each year. Nevertheless, the organic rice supply from APOB and APPOLI contributed significantly to the buyers' overall business. The figure ranges from 20% to 80% of

each's buyer/distributor business volume. These distributors mostly sell organic rice (80% - 90%) to the Central Java and Yogyakarta regions. Only a few (10% - 20%) are sold to the Jabodetabek (Jakarta-Bogor-Depok-Tangerang-Bekasi) areas.

Distributors have different sales strategies. Some have bought organic rice from APOB and APPOLI as raw material for making derivative products such as flour, but most of the rice is packaged and resold under the brands of the distributors. Some distributors have their retail stores, but most of the rice is sold to other parties such as retailers.

Retail sales from year to year have increased, although not significantly. However, compared to the early 2000s, currently, organic rice has gained its market: the middle-upper income people who care about their health. The health motive provides the most immense contribution to organic rice consumption.

Boyolali District has been known as one of the areas that produce organic rice since the mid-2000s. However, for Boyolali Agricultural Service Office, organic rice production has not become a priority for the agricultural sector. It is because the central government has its own (conventional) rice production programme and target which is also a target for each regional government (including Boyolali District) to fulfil it. In addition, the contribution of organic rice to the overall economy of Boyolali District has not looked promising yet. Nevertheless, the Boyolali Agricultural Service Office has promoted organic rice on various occasions at the Central Java Province and national levels.

Boyolali Cooperative Service Office also has an interest in organic rice. For the Boyolali Cooperative Service Office, organic rice can be a potential product for the development of cooperatives in the area. Boyolali Cooperative Service Office proposed (and later will facilitate) the use of networks of various government-related organisations such as teacher organisations as a means of marketing. People in such organisations and their members have purchasing power and are interested in organic rice for health reasons.

The Indonesia Farmers Alliance (Aliansi Petani Indonesia-API) is a national farmer organisation established and founded in 2003 under an agreement between independent farmer organisations in Java and Sumatra. API stands up for the preservation of natural resources, sustainable agricultural practices, and policies that defend Indonesian farmers. In the rice programme, API plays essential roles in lobbying and advocacy for the Sustainable Rice Platform at the national and local levels. Lobby and advocacy are carried out towards the government and private sector.

5. Outcome Mapping

The table below shows the changes perceived and reported by stakeholders due to the implementation of the rice programme. Subsequently, selected changes that were identified, will be quantified and monetised for integration in the SROI calculation.

Table 6. Changes/Outcomes as Perceived and Reported By Stakeholders

No	Stakeholders	Changes/Outcomes	
		Intended	Unintended

1.	Farmer Organisation/FO (APOB and APPOLI)	Intervention 2 ➢ Increase in business contract/purchasing order. ➢ Increase in organic rice selling volume to buyers. ➢ Integration of seed and organic fertilizer business into rice production. (Will start in 2021.) ➢ Increased knowledge Intervention 3 ➢ Increase in the number of farmers group involved in SRP. ➢ Increase in SRP Programme cadre.	➢ Increase in productive assets ownership (APOB got huller machine as grant from the Ministry of Agriculture). ➢ Improved reputation as organic/healthy rice reliable supplier.
2.	Farmers	Intervention 2 ➢ Better rice selling price. ➢ Income improvement. ➢ Organic certified land. ➢ Saving in input cost. ➢ Increase in collective rice marketing to FO.	➢ Knowledge ➢ Skills
3.	Women	Intervention 1 ➢ Increase in the number of women farmers involved in rice supply chain. ➢ Increase in the number of women involved in FO business.	➢ Knowledge ➢ Skills
4.	Youth	Intervention 1 ➢ Increase in the number of young farmers involved in rice supply chain. ➢ Increase in the number of youth involved in FO business.	➢ Knowledge ➢ Skills
5.	Buyers/Distributors	➢ Organic rice supply continuity. ➢ Better rice quality	Improved reputation as healthy rice reliable supplier.
6.	Retailers	➢ Organic rice supply continuity.	
7.	Boyolali Agricultural Service Office (Dinas Pertanian Boyolali)	Performance indicator of the office: ➢ Increased productivity. ➢ Production volume. ➢ Farmers' institution.	
8.	Boyolali Cooperative Service Office (Dinas Koperasi Boyolali)	Performance indicator of the office: ➢ Established farmers' cooperatives. ➢ Increasing numbers of cooperatives giving higher dividend to the members. ➢ Increasing number of active farmers' cooperatives.	
9.	Consumers	➢ Improved health status.	
10.	Indonesia Farmers Alliance (Aliansi Petani Indonesia-API)	Intervention 3 ➢ Increasing numbers of SRP related publications (i.e. articles, social media, etc.). ➢ Raising stakeholders' awareness on sustainable and healthy rice.	

6. Programme Investment

Up to 2020, there were 203 activities financed by the programme. Those 203 activities were classified by the interventions (sub-interventions) for the sake of this SROI analysis. In 2017, APOB invested on land and building to meet the requirement to receive a government grant for the rice mill unit. In the same year, APOB invested in organic land certification, and APPOLI did the same in 2018. The table below shows the investment for the programme.

Table 7. Rice Programme Investment

No	Sub Interventions	2017	2018	2019	2020
1	Capacity building supporting Intervention 1	11.467.000	37.149.500	75.071.550	84.395.000
2	Business Document	153.971.600	149.090.700	254.484.900	153.814.000
3	SRP Pilot	26.095.834	198.204.786	76.813.350	66.750.000
4	Capacity building supporting Intervention 2	224.367.213	114.792.317	44.690.750	39.900.000
5	Marketing	50.437.266	139.788.731	95.592.570	62.900.000
6	Organic input production	60.061.500	63.233.000	41.900.300	53.345.000
7	Lobby and Advocacy (L&A)	27.783.995	67.412.781	105.667.501	168.330.000
8	APOB land and building	650.000.000			
9	Organic land certification	19.442.500	19.442.500		
9	Programme coordination & evaluation meeting	70.398.294	138.858.562	145.572.638	154.520.000
10	Meeting & Networking	9.202.339	48.832.497	53.619.950	83.932.500
11	Rikolto Java Office	89.192.349	111.094.048	118.315.028	167.595.812
	Total Investment	**1.392.419.890**	**1.087.899.422**	**1.011.728.537**	**1.035.482.312**

7. Valuation of Benefit

7.1. Farmers

The intended changes for farmers are better rice selling price, income improvement, organic certified land, and savings in input cost. These were reported by farmers of APOB and APPOLI in the field and triangulated by FO staff and Rikolto Sector Manager. Workshop and training facilitated by APOB and APPOLI also contributed to farmers changes in terms of improved knowledge and skills.

Better rice selling price and farmer's income improvement monetisation was represented by unhulled husk purchased by FO. Organic certified land was calculated 5% higher in land lease price. Saving input cost was calculated by multiplying 15% saving in input cost by total land and planting season a year. Skills was not monetized because in reality increased farmers skills are not compensated by higher wages. Change in knowledge was calculated by farmers' willingness to pay for acquiring such knowledge through other means (training).

Table 8. Farmers Benefit Calculation

	2017	2018	2019	2020
Total farmers (unit)	**1.913**	**2.857**	**2.850**	**2.926**
APOB - non	1.613	1.613	1.613	1.613
APOB - certified	300	300	300	300
APPOLI - non	-	504	625	701
APPOLI - certified	-	440	312	312
Total area (ha)	**589**	**966**	**978**	**1.009**
APOB - non	488	488	488	488
APOB - certified	102	102	102	102
APPOLI - non	-	216	267	298
APPOLI - certified	-	161	122	122
Benefit				
Farmers' Income - certified (IDR)	**38.267.775**	**85.601.980**	**133.504.450**	**56.577.300**
APOB	38.267.775	65.465.730	89.137.950	30.940.850
APPOLI	-	20.136.250	44.366.500	25.636.450
Saving in input cost (IDR)	**137.227.500**	**227.284.830**	**205.405.830**	**205.405.830**
APOB	137.227.500	137.227.500	137.227.500	137.227.500
APPOLI	-	90.057.330	68.178.330	68.178.330
Organic certified land (ha)	**91.485.000**	**235.962.000**	**200.862.000**	**200.862.000**
APOB(hectare)	102	102	102	102
APPOLI (hectare)	-	161	122	122
Improved knowledge (IDR)	**62.500.000**	**32.500.000**	**31.250.000**	**7.500.000**
APOB	38.750.000	21.250.000	11.250.000	-
APPOLI	23.750.000	11.250.000	20.000.000	7.500.000

7.2. Farmer Organisations/FOs

The programme document states that the intended changes that occur to FOs during the programme are: increasing business contracts/purchasing orders, growing sales volume, knowledge, increasing the number of farmers groups involved in SRP and increasing the number of SRP cadres. The information gained during the study were unintended benefits in the form of increased ownership of productive assets (rice mill), increased reputation as a supplier of organic products, and increased staff income.

The increase in business contract/purchasing order value was calculated based on real transactions in the form of an increase in the sales volume of organic rice. Apart from organic rice, FOs also sell other organic non-rice products. However, the amount was not significant to the FOs' profit margin, so it was not included in the calculation of the SROI value.

In 2017, APOB invested in land and buildings to receive government assistance (rice mill). This investment is a central part of the FO business process so that it would affect the main business element: profit margin. In this case, attribution was imposed so that not the entire APOB profit margin can be claimed as the programme benefit. The rice mill itself could be claimed as a benefit, but the size of the claim must be proportional to the size of the respective investment in the year concerned.

The reputation value of FOs, as a supplier of organic products, could not be assessed because FOs have not had a strong product brand image yet. After all, each FO is just doing business with 5-6 regular buyers. Staff income could easily be assessed by the salary they receive. APOB and APPOLI management attended several trainings from which the benefit was calculated based on willingness to pay and take part in the training.

Table 9. FO Benefit Calculation

Benefit	2017	2018	2019	2020
Productive assets (IDR)	**60.500.000**			
APOB	60.500.000			
APPOLI	-	-	-	-
Land	260.000.000	-	-	-
Rice mill	275.000.000	-	-	-
Building	390.000.000	-	-	-
Sub Total	925.000.000	-	-	-
Rikolto (for APOB)	182.333.450	194.610.350	278.794.885	210.190.000
Cumulative investment	1.107.333.450	1.301.943.800	1.580.738.685	1.790.928.685
Attribution	0,20	0,29	0,41	0,48
Attrib. for assets	0,22			
Profit margin (IDR)	**27.949.057**	**135.124.345**	**403.728.313**	**265.689.682**
APOB	141.789.000	245.487.000	320.886.000	192.054.000
With attribution	27.949.057	71.074.345	133.113.313	92.859.682
APPOLI		64.050.000	270.615.000	172.830.000
Staff's incomes (IDR)	**9.500.000**	**9.500.000**	**9.500.000**	**9.500.000**
APOB	5.000.000	5.000.000	5.000.000	5.000.000
APPOLI	4.500.000	4.500.000	4.500.000	4.500.000
Improved knowledge (IDR)	**7.500.000**	**-**	**-**	**11.250.000**
APOB	-	-	-	11.250.000
APPOLI	7.500.000	-	-	-

7.3. Women and Youth

The programme aimed to increase women and youth involvement in rice supply chain and FO business. The women and youth participated in training and workshops to gain knowledge and skills of organic rice production and its business. Afterwards, the FOs involved them in FO processing unit or product marketing for local markets. The benefits they received were mainly income improvement and improved knowledge.

Table 10. Youth and Women Benefit Calculation

Benefit	2017	2018	2019	2020
Youth				
Improved income (IDR)	78.000.000	80.400.000	82.800.000	85.200.000
APOB	38.400.000	40.800.000	43.200.000	45.600.000
APPOLI	39.600.000	39.600.000	39.600.000	39.600.000
Improved knowledge (IDR)	18.900.000	36.400.000	37.800.000	49.450.000
APOB	18.900.000	18.900.000	18.900.000	25.650.000
APPOLI	-	17.500.000	18.900.000	23.800.000
Women				
Improved income (IDR)	175.944.000	183.280.000	197.805.000	204.350.000
APOB	55.944.000	63.280.000	77.805.000	84.350.000
APPOLI	120.000.000	120.000.000	120.000.000	120.000.000
Improved knowledge (IDR)	-	-	15.500.000	8.750.000
APOB	-	-	6.750.000	-
APPOLI	-	-	8.750.000	8.750.000

7.4. Buyer/Distributor and Consumers

The programme has contributed to continuous supply of organic rice for buyers & distributors this brings new/better business opportunities. The profit margin from selling the organic rice produced during the programme period is the best measure to calculate the benefit received by the buyers & distributors. The programme could claim the entire profit margin as benefit without applying deadweight or reduced attribution, because without the organic rice supply, there would be no extra business for the buyer/distributor.

The most essential motive for consuming organic rice is a health concern. Consumers buy organic rice for daily food consumption, but health is a stronger motive in this matter. This study decided to put 65% of the health-related motivation reflecting the programme's deadweight factor. The financial value of the health of consuming organic rice is the difference between the organic rice and conventional rice price. The price differential is assumed to be the consumer's willingness to pay for the health benefit.

Table 11. Buyer/Distributor and Consumer Benefit Calculation

Benefit	2017	2018	2019	2020
Buyer/Distributor				
Profit margin (IDR)	132.213.500	354.902.500	529.206.550	440.382.725
Consumer				
Health benefit received (IDR)	171.580.500	369.281.250	585.786.500	426.426.000

The benefit received by retailers could not be calculated during this study because of the data availability issue. The programme does not have the data on retailer number and their volume of business. Likewise, we could not establish the monetised benefit for the Indonesian Farmers Alliance by lack of underlying data. The financial support given for its activities has not caused

changes yet that could be monetised by considering time constraint and resource limitations for this study.

8. SROI Ratio and Sensitivity Analysis

8.1. Benefit Distribution

The SROI calculation of the Rice Programme employed a 5% discount rate and an exchange rate per Euro of IDR 17,400. Since the study was conducted in November 2020 to calculate the value of the SROI Programme from 2017 until the end of 2021, discounting was done with 2017 as the base year. The benefit figures displayed for 2017 to 2019 were the full figures for each year concerned, likewise, with the investment figure. However, for 2020, the benefit figures displayed were the cumulative figures for January 2020 to October 2020. Meanwhile, the investment figure for 2020 was the figure for the full year. The figures for 2021 were assumed to be as same as in 2020, given various considerations such as uncertain market factors due to Covid-19 pandemic.

Table 12 shows that the SROI value of this programme is 1.62, meaning every Euro invested by Rikolto and its partners has created a benefit for society of (at least) Euro 1.62. Actual benefits and returns could be higher because a number of positive changes that can be attributed to the programme could not be monetised. These include, among others, benefits for retailers, improved sector performance to be delivered by API, social empowerment of women and youth who engage in the organic rice production and marketing, rice-derivative and non-rice business opportunities, improved management capacities of cooperatives, benefits brought about by widened and stronger networks, to name a few of the most important benefits not captured by the SROI ratio.

Table 13 shows the distribution of benefits among stakeholders along the organic rice supply chain. Farmers get the largest portion of 26.5%. Consumers is in second place at 21.7%, then Buyers/Distributors at 20.8%, FO 13.5%, Women 10.9%, and Youth 6.6%.

Actually, the SROI value would be higher if the “savings in input cost” component was calculated using information given by the farmers. The farmers claimed savings of up to 30% which was considered to be too optimistic. There were 78 farmers out of 300 organic certified farmer members supplying to APOB, while APPOLI had 55 farmers out of 312 organic certified farmer members selling their unhulled rice to the FO. These are the farmers that indicated 30% savings but presumably this % would not apply for all farmer members. In our base scenario we, therefore, assumed a saving of 15%. If the information on savings of 30% would apply to all members, the value of the benefit of 'saving in input cost' would double. We used the latter amount for an alternative, more optimistic scenario 1.

Another element that can be considered is the “profit margin” benefit from the FOs. The profit margin of IDR 1,098,181,078 is the value that can be claimed by the programme. However, because in 2017 APOB invested IDR 650,000,000 in land and there was also assistance from the government in the form of a rice mill worth IDR 275,000,000; it was appropriate to set a reduced attribution on APOB's profit margin.

Table 13. Benefit Distribution

No	Benefits	Base Scenario (SROI 1.62)		Scenario 1 (SROI 1.92)	
		Value (IDR)	%	Value (IDR)	%
a	**Farmers**	**2.422.541.626**	**26,5%**	**3.403.271.447**	**31,5%**
	Income improvement	370.528.806		370.528.806	
	Saving in input cost	980.729.820		1.961.459.641	
	Organic certified land	930.033.000		930.033.000	
	Improved knowledge	141.250.000		141.250.000	
b	**FO**	**1.236.181.078**	**13,5%**	**1.910.595.000**	**17,7%**
	Productive asset	60.500.000		60.500.000	
	Profit margin	1.098.181.078		1.772.595.000	
	Staff's income	47.500.000		47.500.000	
	Improved knowledge	30.000.000		30.000.000	
c	**Youth**	**603.600.000**	**6,6%**	**603.600.000**	**5,6%**
	Improved income	411.600.000		411.600.000	
	Improved knowledge	192.000.000		192.000.000	
d	**Women**	**998.729.000**	**10,9%**	**998.729.000**	**9,3%**
	Improved income	965.729.000		965.729.000	
	Improved knowledge	33.000.000		33.000.000	
e	**Buyer/Distributor**	**1.897.088.000**	**20,8%**	**1.897.088.000**	**17,6%**
	Profit margin	1.897.088.000		1.897.088.000	
f	**Consumers**	**1.979.500.250**	**21,7%**	**1.979.500.250**	**18,3%**
	Health	1.979.500.250		1.979.500.250	
	Total benefit	**9.137.639.954**	**100,0%**	**10.792.783.697**	**100,0%**

Note: % = distribution of the benefits along the supply chain

Reduced attribution to APOB's profit margin may not be appropriate because APOB's investment and government assistance have not affected APOB's organic rice production capacity. When this study was conducted, APOB's production capacity was not much different from before having its own rice mill. Another reason is that the rice mill is still underutilised. The largest APOB sales volume was achieved in 2019, amounting to 106.9 tonnes. Whereas APOB's rice mill capacity is around 3 tonnes of rice per hour. When fully used, it could produce 20-25 tonnes of organic rice per day. In case we do not apply a reduced attribution, the FO 'profit margin' benefit value will be 61% higher (IDR 1,772,595,000). This value was used in the alternative scenario 2. Note: even without reduced attribution on profit margin, APOB's investment of IDR 650,000,000 in 2017 will still be counted as a cost in the SROI assessment.

By using a 'saving in input cost' calculation of 30% and without reduced attribution to APOB's profit margin, the SROI value of the programme increases from 1.62 to 1.92. The distribution of benefits along the supply chain will change to farmer 31.5%, FO 17.7%, Youth 5.6%, Women 9.3%, Buyer / Distributor 17.6%, and Consumers 18.3%.

8.2. Incorporating Indirect Cost and Its Impact to SROI Value

SROI value for base scenario is 1.62. In this scenario only direct investment is calculated. The direct investment means all of direct expenses for running the program. In Base Scenario, expenses such as program coordination, meeting and networking are considered as direct investment of the program. Expenses for Rikolto Java office rent, staff salary, etc actually are kinds of overhead cost, but for Rice Program managed by Rikolto Indonesia such expenses are also considered as direct investment (see worksheet Base Scenario in the attachment).

Tabel 14. Overhead Cost Impact to SROI Values

Ratio	Base Scenario	Scenario 2-1	Scenario 2-2
SROI	1,62	1,26	1,07
Overhead cost (IDR)		1.562.164.276	2.875.131.214
Total cost (IDR)	5.516.965.969	7.079.130.245	8.392.097.183
Total benefit (IDR)	9.137.639.954	9.137.639.954	9.137.639.954
Overhead to total cost		22%	34%
Overhead to total benefit		17%	31%

In Scenario 2-1, Regional Office overhead cost is incorporated to the analysis. By doing this, the overhead cost ratio to total program cost changes into 22%, overhead cost to total benefit 17%, and the SROI value decreases to 1.26. Scenario 2-2 incorporates Regional Office overhead cost and GKS Indonesiè (Rice). The ratio of overhead to total cost is 34%, overhead to total benefit 31% and the SROI value is 1.07.

9. Multi Criteria Efficiency Assessment (MCEA)

The Rikolto team has identified three different interventions (divided into seven sub-interventions) that they wanted to assess against 7 criteria of effectiveness. There are two columns without scores that are considered as an overhead cost and could not be classified as intervention. The result of the assessment is presented in Table 14.

The highest scores in terms of effectiveness (but not yet with cost consideration) are marketing, capacity building supporting Intervention 2, and business document. Marketing got the highest score for 3 key criteria in this programme: farmers' income improvement, FO business capacity and healthy food availability. FOs carried out various kinds of marketing activities ranging from marketing organic rice in the neighbourhood, connecting to buyers in Semarang, Yogyakarta and other big cities, and participating in national and international trade expos. Marketing is very effective for expanding business networks and obtaining purchasing orders.

'Capacity building supporting Intervention 2' is related to on-farm, production and business activities in the processing unit and the FOs' management. This intervention allows farmers to produce according to organic standards or sustainability standards that meet market criteria. FOs also increase its business management capacity thanks to this intervention.

Business document was a crucial intervention that enable and facilitate FOs to deal with the market before sales and marketing activities are carried out. In this intervention, organic land

certification, preparation of business plans, contract documents, and other business documents are prepared so that the FOs can run a business in a neat and planned manner.

Lobby and advocacy may be the least effective intervention. Rice is a strategic commodity that is highly regulated by the Central Government. Local governments have also received clear directions on how rice production targets should be achieved, so that the mobilization of resources and technology for rice production is strictly regulated. Lobby and advocacy on SRP is being pursued, but this requires more time and effort to influence government policies on rice production.

Of the seven sub interventions, business documents, marketing, and lobby and advocacy were considered as the most expensive. Capacity building supporting Intervention 2, organic input production, SRP pilot, and capacity building supporting Intervention 1 were perceived as 'cheap' sub-interventions. By dividing the weighted score against costs, the most efficient sub-interventions are capacity building supporting Intervention 2, organic input production, and SRP pilot. Meanwhile, business documents, marketing, and lobby and advocacy are the 3 sub-interventions with the lowest efficiency ratio.

Even though its efficiency ratio is the lowest, intervention in business planning and documentation is considered to be the most important gap in the FO’s performance: being able to develop a business plan with all due documents as needed. Strengthening this capacity will encourage the emergence of a more effective business environment. In return, with stronger business culture, new business opportunities will emerge.

Table 12. Efficiency Analysis for Rikolto

Case #1 : Rice - Indonesia

SROI Calculation

Discount rate = **5%**

Currency **IDR**

Exchange rate per Euro **IDR17.400,00**

		2017	2018	2019	2020	2021	**Total 2017-2021**
	Discount factor	1,05	1,10	1,16	1,22	1,28	
1	**Costs (IDR)**						
a	Capacity building supporting Intervention 1	11.467.000	37.149.500	75.071.550	84.395.000	84.395.000	292.478.050
b	Business Doc	153.971.600	149.090.700	254.484.900	153.814.000	153.814.000	865.175.200
c	SRP Pilot	26.095.834	198.204.786	76.813.350	66.750.000	66.750.000	434.613.970
d	Capacity building supporting Intervention 2	224.367.213	114.792.317	44.690.750	39.900.000	39.900.000	463.650.280
e	Marketing	50.437.266	139.788.731	95.592.570	62.900.000	62.900.000	411.618.567
f	Organic input production	60.061.500	63.233.000	41.900.300	53.345.000	53.345.000	271.884.800
g	Lobby and Advocacy (L&A)	27.783.995	67.412.781	105.667.501	168.330.000	168.330.000	537.524.277
h	APOB land and building	650.000.000					650.000.000
i	Organic land certification	19.442.500	19.442.500				38.885.000
j	Programme coordination & evaluation meeting	70.398.294	138.858.562	145.572.638	154.520.000	154.520.000	663.869.494
k	Meeting & Networking	9.202.339	48.832.497	53.619.950	83.932.500	83.932.500	279.519.786
l	Rikolto Java Office	89.192.349	111.094.048	118.315.028	167.595.812	121.549.309	607.746.545
	Total Cost	**1.392.419.890**	**1.087.899.422**	**1.011.728.537**	**1.035.482.312**	**989.435.809**	**5.516.965.969**
	Discounted costs	**1.326.114.180**	**986.756.845**	**873.969.149**	**851.893.861**	**775.248.846**	**4.813.982.882**

2	**Benefits (IDR)**						
a	**Farmers**						**2.422.541.625**
	Income improvement	38.267.775	85.601.980	133.504.450	56.577.300	56.577.300	370.528.805
	Saving in input cost	137.227.500	227.284.830	205.405.830	205.405.830	205.405.830	980.729.820
	Organic certified land	91.485.000	235.962.000	200.862.000	200.862.000	200.862.000	930.033.000
	Knowledge	62.500.000	32.500.000	31.250.000	7.500.000	7.500.000	141.250.000
b	**FO**						**1.236.181.078**
	Productive asset	60.500.000					60.500.000
	Profit margin	27.949.057	135.124.345	403.728.313	265.689.682	265.689.682	1.098.181.078
	Staff's income	9.500.000	9.500.000	9.500.000	9.500.000	9.500.000	47.500.000
	Knowledge	7.500.000			11.250.000	11.250.000	30.000.000
c	**Youth**						**603.600.000**
	Improved income	78.000.000	80.400.000	82.800.000	85.200.000	85.200.000	411.600.000
	Knowledge	18.900.000	36.400.000	37.800.000	49.450.000	49.450.000	192.000.000
d	**Women**						**998.729.000**
	Improved income	175.944.000	183.280.000	197.805.000	204.350.000	204.350.000	965.729.000
	Knowledge			15.500.000	8.750.000	8.750.000	33.000.000
e	**Buyer/Distributor**						**1.897.088.000**
	Profit margin	132.213.500	354.902.500	529.206.550	440.382.725	440.382.725	1.897.088.000
f	**Consumers**						**1.979.500.250**
	Health	171.580.500	369.281.250	585.786.500	426.426.000	426.426.000	1.979.500.250
	Total benefit	**1.011.567.332**	**1.750.236.905**	**2.433.148.643**	**1.971.343.537**	**1.971.343.538**	**9.137.639.953**
	Discounted gross benefits	963.397.459	1.587.516.467	2.101.845.281	1.621.829.206	1.544.599.245	**7.819.187.657**
3	**Net benefits**						
3,1	Nominal net benefits	-380.852.558	662.337.483	1.421.420.107	935.861.225	981.907.728	**3.620.673.984**
3,1	Discounted net benefits	-429.022.431	600.759.622	1.227.876.131	769.935.346	769.350.398	**2.938.899.066**

SROI = total discounted benefit : total discounted cost = 7.819.187.657 : 4.813.982.882 = 1,62

Table 15. MCEA of Rikolto Indonesia Rice Programme

Structural Change Agenda 1: Healthy food is available to meet the growing urban needs through formal and informal markets									
Interventions		**(1) Enabling environment for gender sensitiveness & youth inclusiveness of the value chain**	**(2) Facilitating and enabling rice farmer organisations to produce rice in sustainable way and become professional business practitioners to meet the new market demands.**					**(3) Promoting SRP Standards to the main stakeholders (central government, CSOs, FOs, private actors) to be adopted in Indonesia**	**Weight**
Sub Interventions		**Capacity building supporting Intervention 1**	**Business Document**	**SRP Pilot**	**Capacity building supporting Intervention 2**	**Marketing**	**Organic input production**	**Lobby and Advocacy (L&A)**	
How useful is the intervention for? (Effectiveness 1=low/ 5=high)									
1	**Farmers income improvement**	3	4	4	5	5	5	5	20%
2	Women involvement	5	2	1	3	5	2	1	10%
3	Youth involvement	5	4	3	3	5	2	1	10%
4	Organic land quality - environment	3	5	5	4	3	5	2	10%
5	**FO business capacity**	5	5	4	5	5	5	4	20%
6	Policy changes	1	2	5	2	1	1	5	10%
7	**Healthy food availability**	4	5	5	5	5	5	5	20%
Weighted score		3,8	4,1	4	4,2	4,4	4	3,7	100%
Effectiveness Rank		6	3	4	2	1	4	7	
Cost 1=low/ 5=high		3	5	3	3	5	3	4	
Efficiency Ratio		1,27	0,82	1,33	**1,40**	0,88	**1,33**	0,93	
Efficiency Rank		4	7	2	1	6	2	5	