

# Evaluation of Community Development for Fishermen in Tanjung Limau, Bontang, Indonesia

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**Abstract.** Many people who live in the coastal area of Tanjung Limau in Bontang work as fishermen which is not environmentally friendly (Hadi,2019). Their lives depend on the weather at sea and they cannot go to the sea and catch fish every day. In order to support their lives, they have to owe money from middlemen which is paid by selling the fish they get from the sea to the middlemen with low price so they have to owe money to middlemen. Tanjung Limau is an area which is affected to the business activities of PKT. This is the reason why PKT implements CSR Program of grouper fish and lobsters on floating net cages in Tanjung Limau. PKT prepares the tools and infrastructure of cultivation along with the lobsters and grouper fish seeds, program implementation assistance, capacity improvement and market access. The research method applied in this research is qualitative method with narrative type and the data collection is performed through interview, observation, and document study. The data source sample was selected purposively and snowball sampling. The result from the CSR program of PKT is the fishermen in Tanjung Limau is free from debt from middlemen, they have access to international markets, they become independent with this sustainable program and they can share profit with PKT with the share ratio of 1: 1 when PKT provides the seeds of grouper fish. With the profit share between PKT and Koperasi Nelayan Bontang Ekonomi dan Pariwisata Maritim, thus this PKT CSR Program is considered to exceed the traditional CSR program but this program has not fulfilled the elements of Creating Shared Value (CSV), therefore it is called CSR plus (CSR<sup>+</sup>).

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## 1 Introduction

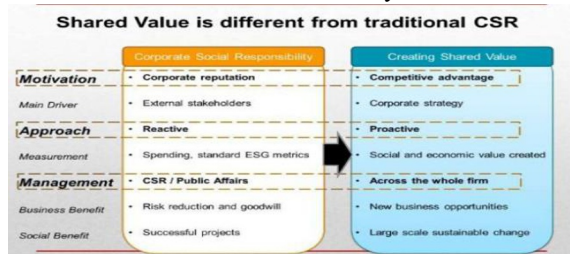
Bontang is located in the Province of East Kalimantan (Kaltim) which occupies an area of 158,2276 km<sup>2</sup>, consisting of 70% of water covering the area and 30% of land. The people's livelihoods are diverse, including: State Civil Apparatus, soldiers, private company sectors, and many of them are fishermen. There are several large-sized companies in Bontang, namely PT. Badak NGL which produces natural liquefied gas which is located in South Bontang district, PT. Indominco which engages in the sector of coal mining, located in the district of West Bontang, and PT. Pupuk Kalimantan Timur (PKT) which produces urea and NPK fertilizers, located in the district of North Bontang. Some companies are located in the Industrial Area owned by PT. Kaltim Industrial Estate (PT.KIE) which is a sister company of PKT, while PKT is one of the subsidiary companies of Pupuk Indonesia Holding Company (PIHC) which is a State-Owned Enterprise so it is mandatory for the company to implement the Regulation of Minister of State-Owned Enterprises, No. 5, 2021 regarding Social and Environmental Responsibility Program (CSR) for the State-Owned Enterprises in article No. 3, point c). The Social and Environmental Responsibilities Program (CSR) of State-Owned Enterprises aims to guide micro and small companies to be stronger and to help the local communities to be more independent. PKT has performed CSR since the plant was started to be built for example by building access road from Guntung to PKT Plant, from Lhoktuan to PKT Plant, and the road from PC- 6 to PKT Plant was initially for the access for employees to work but then it is also used for the local communities in their daily activities. Other than that PKT also gives educational assistance, skills for the local communities and other social assistance such as mass circumcision, medical treatment and planting reforestation trees, as well as performing partnership program for small entrepreneurs and environmental / area development [1].

As the subsidiary company of PIHC, PKT is expected to bring benefits to its *shareholder* and *stakeholders* especially to the people who are affected by the company's activities by conducting TJSL or *Corporate Social Responsibility* (CSR) at the location which is affected by its business activities. According to [2] CSR is actually a serious effort from the company's management to reduce negative impacts and to increase positive impacts to *stakeholders* in sustainable development. The company does have social responsibility but it is limited only to the affected area and its *stakeholders*. The negative impacts of company are possible to occur even when the company has not started its operation such as during the time of exploration and construction. CSR should have been implemented since the initial period the company interacts with its *stakeholders*. According to [3] PKT had performed society development since Plant-1 was not operated in 1984. Plant-1 is the first plant to be built by PKT. Currently PKT has built Plant-7.

According to [4] stated with their concept of "Creating Shared Value / CSV" say "corporate policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operated". They say that shared value is a company policy and practice which can improve the company's competitiveness as well as improve the social and economy condition of the people who live in the area where the company operates. [5] stated that CSV is more than just "do good things" and it becomes a new way in creating economic success by using dependency factor between social and economy conditions. Based on the conceptualization from [6], [5] classified the initiative of CSR into two categories, namely "Shared-value CSR

(CSV)” and “Traditional CSR”. According to [5], mentioned the differences between CSV and CSR are viewed from 3 sides, namely: the motives of CSR, CSR as the value creator, and the commitment of CSR. [7] stated that social and environmental problems is a business opportunity. Solving social and environmental problems which is integrated in the company’s *core business* will provide economic value to the company and its surrounding stakeholders. This is an approach which is different from the basic concept of CSR which was initially started from risks and impacts mitigation.

According to [8] a traditional CSR is a conventional CSR. A conventional CSR is a CSR which is generally performed by a company which does not contain the characteristics of CSV or Corporate Social Innovation (CSI). While according to [9], CSI is a unique set of a company’s asset which cooperates with other stakeholders in order to produce breakthrough and solution to solve the problems of economy, social, and environment which are complex, which one of its implementation is in the form of CSV. According to [10], Corporate Social Innovation (CSI) is a program which contributes mutual benefits between the company and the society (shared value) at the same time, which one of the benefits is creating shared value (CSV) which is characterized with the existence of programs related to the company’s core business and core competency of the employees of the company. For example, as a fertilizer manufacturer, PKT can facilitate farmers with fertilizer from PKT (core business) during planting rice session as the form of its CSV. While from the core competency side, employees of PKT are expert in creating fertilizer so they can explain the right dose of fertilizer to farmers so the farmers can use the fertilizer efficiently and it does not harm environment.



CSV is not a part but a new form of CSR. CSR program generates long term benefits for the society and intangible benefits (invisible) for the company such as a company’s good image, but according to [11] stated if the company implements CSV, then the benefits obtained by the society and the company (tangible and intangible) are mutual benefits which are obtained at the same time. [8] presented the difference between CSR and CSV in Feature 1.

**Fig. 1.** CSR and CSV Difference

Source: [8]

As a company which uses methane natural gas as its raw material to produce urea and NPK fertilizers, it is mandatory for PKT to implement corporate social responsibility and environmental programs (CSR). Based on [12] regarding Limited Companies, states that a company which uses natural resources as its raw material must perform Corporate Social Responsibility. The location where the CSR program will be commenced is prioritized to the areas which are directly affected by PKT’s business activities so that PKT is obliged to conduct CSR program in the village as a compensation. One of the areas is the coastal area of Tanjung Limau in Bontang Baru village which is located next to the entry and exit routes of ships transporting raw materials for PKT’s and other companies’ products in East Kalimantan Industrial Estate area.

## 2 Research Method

The research method applied in this research is qualitative method with narrative type and the data collection is performed through deep interview, observation, and document study [13]. The data source sample was selected purposively and snowball sampling [14].

## 3 Result

In the interview, Mr. Maeng, a fisherman figure in Tanjung Limau, says that the problem faced by fishermen in Tanjung Limau, Bontang is their lives depend on the weather at sea and the other problem according to [3] stated that debts on middleman. If the sea wave is high, they cannot catch fish, so in order to cover the daily needs, they owe money to middleman. If the weather is good/the sea wave is normal, the fishermen go back to the sea to catch fish. The fish caught by fishermen must be sold to the middlemen who give loan to the fishermen with a price determined by middlemen, and it goes on so they cannot escape from debt to middlemen [3]. Another problem is unfriendly environmental issue where fishermen still use fish bomb and potassium chemical substance which can poison fish and other sea biota which cause small and big fish including fish seeds and even coral reefs are also dead [3]. In addition to the interview done by the researcher, Mr. Mukhtar, the head of The Maritime Economic and Tourism Bontang Fisherman Cooperative mention that fishermen still use fish catcher tool that can destroy coral reefs.

Reefs are the place for spawning fish. Therefore, when reefs are destroyed, then fish and their fries will extinct. From the observation result, fishermen go farther day after day to catch bigger fish which have higher price than trash fish (trash fish are smaller fish which are used for fish feed with low price of IDR3000 per kilogram). Meanwhile the capacity of most ships owned by fishermen is small, around 1-3 Gross Ton (GT), which usually can only be used for fishing under 12 miles from the beach with small until moderate waves (below 1 meter), so they can only catch small fish and they cannot catch bigger fish which are in the middle of the sea which is more than 12 miles from the beach and has big waves (above 1 meter). Because fishermen can only catch fish around the beach and the size of fish caught is small/trash fish, so they only can sell the fish at the market with extremely low price. If the fish are not sold out at the market, then the fish will be thrown into the sea resulting in pollution at sea around Tanjung Limau. If an NGO finds out this condition, it will make this condition as an environmental issue and then brings this issue to PKT by stating that PKT liquid waste has polluted environment and they will ask for some compensation to PKT. Mr. Mukhtar states “some fishermen have ships with the capacity above 10 GT which can catch fish up to the middle part of the sea near the Makasar strait. But ironically from the observation result” If fishermen can catch many fish, the price of the fish will fall down (extremely low), because the price of the fish is determined by middlemen so fishermen never enjoy their catch well. This is the reason why the fishermen of Tanjung Limau are difficult to pay off the debt to middlemen”.

After being observed, grouper fish and lobster cultivation by using floating net cages (FNC) is determined to be PKT's CSR Program in Tanjung Limau. This program is first initiated by Fantasi fishermen group. At the beginning PKT assisted Fantasi fishermen group in 2016 to create 12 FNC demplots for grouper fish and 3 plots for lobsters. The seeds of lobster are obtained from local body of water (Bontang) while the seeds of grouper fish are obtained from outside of Bontang, namely from Gondol, Bali or Situbondo, because there are no seeds of grouper fish sold in large quantity. The seeds of grouper fish in local body of water can only be obtained in small quantity and their size is not same so they cannot be

harvested in large quantity. If the harvest of grouper is small (under 1 ton) there is no buyer will come to Tanjung Limau with fish export ship to buy the fishermen' harvest because the harvest does not fulfil the minimum quota of load of the ship (1 ton) so they will lose. Fishermen must sell fish to traders who collect live grouper fish for export in Balikpapan, which is around 250 km from Bontang by road. Grouper fish must be sold in live condition because their price is higher compared to when they are sold dead, so a special treatment is needed. At the beginning of the program commencement, PKT brought 4000 seeds of grouper fish from Gondol, Bali.

The purchase of the fish seeds were based on the recommendation from the Department of Food Security, Fisheries and Agriculture (DFSFA) of Bontang because the seeds of grouper fish in a large quantity with the same size were The Maritime Economic and Tourism Bontang Fisherman Cooperative in large quantity (minimally 1 ton) can be done at the same time so fish exporter are willing to come with their ships to Tanjung Limau, Bontang because the harvest fulfils the minimum quota of export ship load. It requires minimally 6 months to grow the fish in FNC to reach the harvest weight of 500 grams – 900 grams. The feed for grouper fish is small fish (trash fish) obtained from local body of water caught by using light fishing. With a total of 4000 fish seeds, it is expected to be able to harvest more than 1 ton fish with a minimum weight of 500 grams, and based on the observation result, the potential mortality of fish is 15%. The harvest is directly sold to fish exporters with international market real time price while on sale. To provide easiness in creating agreement with exporters, PKT guides some fishermen of Fantasi group and some fishermen from other groups to create a legal entity cooperative under the name of. According to [15], A cooperative has both comparative and competitive strengths. The comparative strength owned by cooperative is it really concerns with the interests of its members. Meanwhile cooperative also has competitiveness as companies. The cooperative is a legal entity, and in the eyes of the law the position of cooperative is the same as the company [15].

PKT assisted the fishermen Cooperatives from the start of the program in 2016 until the exit program in 2020 by making a road map and involved the fishermen in the planning. PKT provided facilities and infrastructure as well as gave several trainings to increase the capacity of fishermen, including Good Aquaculture Practice (GAP) which the main requirement for fishermen is to be able to sell fish to exporters, Basic Safety Training (BST) at sea and Nautical Expert of Fishing Vessel (NEFV) 3 (a kind of ship's license), public speaking and cooking and plating training (cooking and serving food training) for fishermen's wives in making grilled / sweet and sour grouper and lobster. The number of members at the beginning of the program was 10 people and increased every year until it reached 74 people at the end of the program. Likewise, the number of FNC plots increased to 124, with the details of 100 plots in Tanjung Limau and 12 plots in replication 1 in Gusung, Guntung Sub-district and 12 FNC plots in Bontang Kuala, Bontang Kuala Sub-district which are replication 2. From the results of the interview with Mr. Mukhtar, the Head of the Maritime Economic and Tourism Bontang Cooperative: FNC Tanjung Limau is a place for Bontang Fisheries Vocational High School students or from outside Bontang and university students majoring in fisheries both from within the East Kalimantan Province and from outside East Kalimantan to do practical work on the cultivation of grouper fish and lobster with field supervisors from the fishermen who are the members of the Cooperative. From the observations, the fishermen's wives manage a floating stall called the "*Kerlob-Kerlob*" stall (*Kerlob* comes from the acronym for Lobster Grouper) with grilled grouper fish and grilled lobster with the signature chili sauce of Bontang called sambal gami, as the menu.

During the assistance, PKT applied the profit sharing from fishermen's net profits when selling grouper. If PKT provides fish seeds from Gondol Bali or from Situbondo, the goal

expected is that they are serious and produce the best harvest from their fish farming business, in addition because it was originally conceptualized as a CSV program, then the results must be returned to the company. However, the grouper cultivation activity in Tanjung Limau is not in accordance with the core business and core competency of PKT employees. The profit sharing has been approved by the PKT and the Bontang Maritime Economy and Tourism Cooperative with a ratio of 1:1 with the risk of fish death starting from sending seeds from outside Bontang to harvesting grouper fish in the Tanjung Limau FNC is borne by PKT. If fishermen catch fish and get grouper seeds from local waters, then the harvest is not subject to profit sharing, because PKT does not provide seeds from outside Bontang [16]. The quotient formula agreed by both parties is as shown below:

$$\text{Profit Sharing} = \frac{(A - B - C - D) \times 100\%}{2}$$

Source: [16]

Remark:

Profit Sharing = in IDR

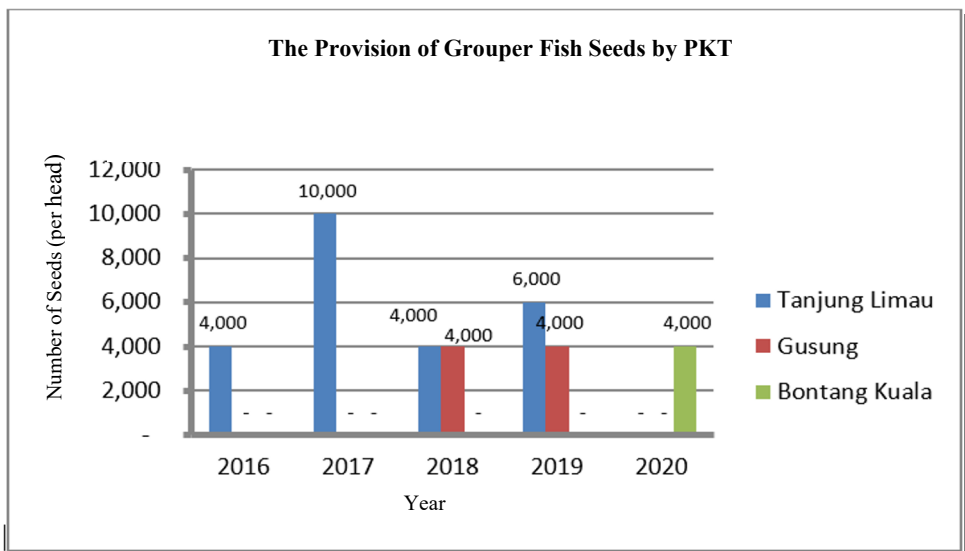
A= Total sales of grouper at harvest (IDR)

B = The amount of trash fish used during maintenance is calculated as 2 times as the amount of harvest multiplied by the price of trash fish per kilogram of IDR 3000. It is provided by fishermen and it becomes the right of fishermen.

C = The cost of purchasing seeds including air transportation from Gondol Bali / Situbondo, East Java provided by PKT, becomes PKT's rights with the risk that the number of seeds that die until harvest is borne by PKT.

D = The operational cost is the cost of 1 cage guard, guarding for 6-8 months during maintenance with a guarding fee of IDR 500,000 per month and paid at harvest.

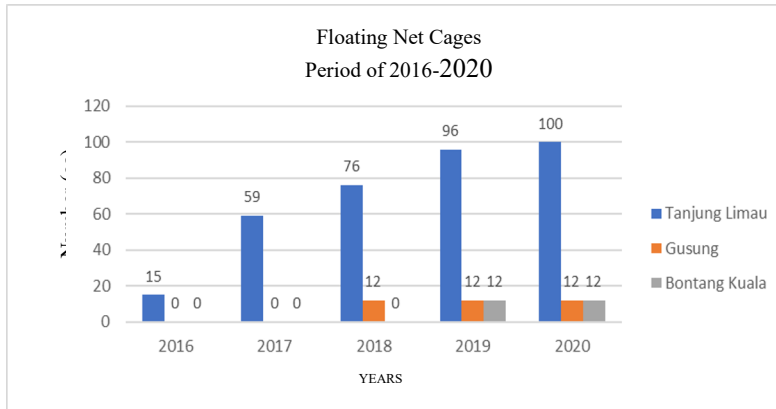
2 = the divisor number of PKT and the Maritime Economic and Tourism Bontang Cooperative From the results of observations, the supply of grouper seeds by PKT from the beginning of the assistance of the 2016 to exit program in 2020 in Tanjung Limau which is the main Floating Net Cage and in replication 1 in Gusung waters and in replication 2 in Bontang Kuala waters is presented in Figure 2.



**Fig. 2.** CS The Provision of Grouper Fish Seeds by PKT VS Year R and CSV Difference

Source: [16]

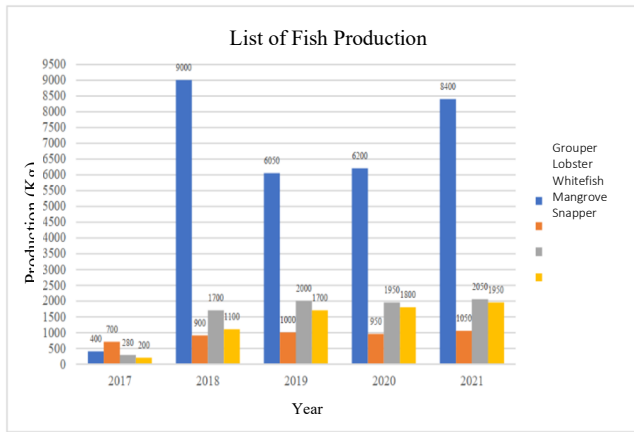
All grouper seeds are reared and raised in Floating Net Cages assisted by the PKT. The addition of the number of FNC from year to year is in line with the addition of the number of members of the Maritime Economic and Tourism Bontang Cooperative. The cumulative number of main FNC in Tanjung Limau per year increases, namely in 2016 = 15 plots, 2017 = 59 plots, 2018 = 76 plots, in 2019 = 96 plots, in 2020 = 100 plots while in replication 1 Gusung, Guntung Village in 2018 = 12 plots and in Bontang Kuala, Bontang Kuala Village in 2019 = 12 plots (PKT,2020). A picture of the presence of the number of FNC in the 3 locations is



**Fig. 3.** Floating Net Cages Period of 2016-2020

Source: [3]

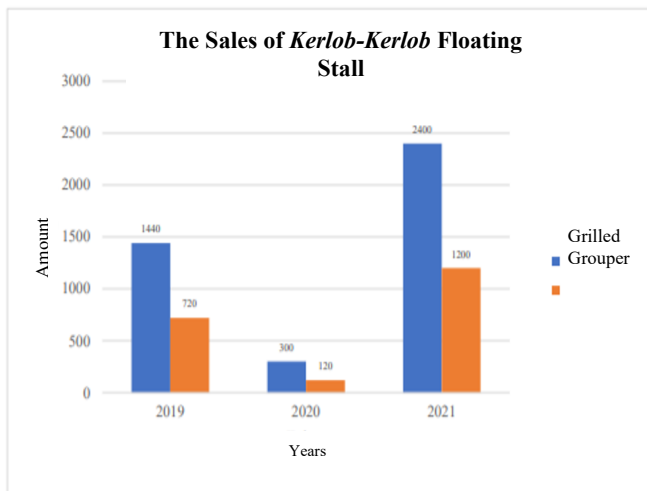
The fishermen who are members of the Maritime Economic and Tourism Bontang Cooperative at the Tanjung Limau FNC, apart from keeping grouper from seeds from outside Bontang and lobster from natural seeds, they also raise several types of fish from natural seeds in the Bontang waters that they catch, namely: mud grouper, mangrove snapper and white fish. Mangrove snapper and white fish are sold at Bontang traditional markets and grilled fish stalls in Bontang (PKT,2020). Meanwhile, natural grouper seeds and grouper whose seeds are sourced from outside Bontang are exported to floating *Kelob-Kerlob* stalls, restaurants around Bontang and Balikpapan. Likewise, for lobsters that are sold out at *Kerlob-Kerlob* stalls and restaurants in Bontang and Balikpapan, nothing is exported because of limited lobster seeds, only relying on fishermen's catch from nature. The list of fish production from the Tanjung Limau FNC that has been sold is presented in Figure 4.



**Fig. 4.** The list of fish production from the Tanjung Limau FNC that has been sold

Source: [3]

Grouper production is commonly known as harvesting. The first harvest of grouper at the Tanjung Limau FNC was carried out at the end of 2017, the first harvest was purchased by PKT on PKT's birthday 7 December 2017, while the grouper export ship as a permanent *buyer* for export to Thailand and Hong Kong arrived late, and only arrived in Bontang. in early 2018, so that in 2018 the production and sales of grouper fish were very high, because the grouper harvest in 2017 was harvested and sold in early 2018 plus the harvest and sales throughout 2018. If you look at Figure 3 regarding the Fish Production List in the Tanjung Limau FNC, the trend of grouper production and sales increases along with the increase in the number of cooperative members and the number of FNC plots presented in Figure 2 including the replication FNC in Gusung which started selling grouper in 2019, and FNC replication in Bontang Kuala which started harvesting and selling grouper in 2020. Export sales of grouper from the replicated FNC are centered at the main FNC Tanjung Limau. Meanwhile, sales of lobster, mangrove snapper and white fish increased slightly, because they rely on natural seeds and these seeds are not yet available at the Fish Breeding Center, either in Bontang or outside Bontang. Sales of lobster and other fish seeds obtained from nature are sold at floating stalls *Kerlob-Kerlob* (*Kerlob* comes from the acronym for Lobster





Grouper) which is managed by the Fishermen's Wives, members of the Maritime Economic and Tourism Bontang Cooperative located in FNC Tanjung Limau and other grilled fish stalls in Bontang (PKT,2020). From the results of observations and interviews with Mr. Mukhtar, the Head of the Maritime Economic and Tourism Bontang Cooperative, it was stated that the sales of grilled grouper and grilled lobster at the *Kerlob-Kerlob* floating stall in the Tanjung Limau FNC in servings are presented in Figure 5.

**Fig. 5.** The Sales of *Kerlob-Kerlob* Floating Stall

S.D. (2021)

## 4 Discussion

Grouper and lobster cultivation program for fishing communities in Tanjung Limau Bontang, East Kalimantan, accompanied by PKT with a 1:1 profit sharing between PKT and the Bontang Maritim fishing cooperative when PKT provided grouper seeds, is a CSR practice that is not found in traditional/conventional CSR and this CSR practice has not yet reached the CSV concept which focuses on the company's *core business* and the company's *core competency*. Therefore, the CSR practice in Tanjung Limau carried out by PKT is a new thing because it applies the profit sharing from the net profits from the sale of grouper when PKT provides grouper seeds from outside Bontang so it is called CSR Plus (CSR<sup>+</sup>) because it is a CSR practice that is more than just a traditional CSR practice but does not contain the characteristics of CSV and CSI, presented in Figure 6.



CSR < CSR Plus (CSR<sup>+</sup>) ≠ CSV

**Fig. 6.** The Characteristics of CSV and CSI

## 5 Conclusion

With the PKT successfully implementing the CSR Plus (CSR<sup>+</sup>) program in the Tanjung Limau fishing community through the grouper and lobster cultivation program, the environmental issues that are often raised by fishermen and NGOs and reported in the local mass media that create a bad image of the PKT in the eyes of the community are not proven, because PKT has processed liquid waste that is channeled into the sea in accordance with the quality standards of applicable laws and regulations and the existence of a grouper and lobster cultivation program at the Tanjung Limau FNC which is managed by the fishing community as well as a bio indicator shows that the waters of the Bontang sea are not polluted by PKT factory waste. PKT has been appreciated by the Ministry of Environment and Forestry by obtaining the 5th National Gold (highest level) of Company Performance Rating Program in the Environmental Sector in 2021, here proving that PKT has implemented business practices applying excellence environment.

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