



## EMPOWERING WOMEN FARMERS GROUPS TO ENHANCE COMMUNITY SOCIAL ASSETS: A CASE STUDY IN SOBOKERTO VILLAGE, BOYOLALI

Fitri<sup>1\*</sup>; Afina Rahma Hadiyati<sup>1</sup>; Wisnu Setiawan<sup>1</sup>; Abdul Rafi' Damar Negro<sup>1</sup>;  
Silverius Djuni Prihatin<sup>1</sup>; Siti Fatonah<sup>1</sup>; Dewangga Cipta Mahendra<sup>2</sup>

<sup>1</sup>) Department Social Development and Welfare, Faculty of Social and Political Sciences, Gadjah Mada University, Yogyakarta, Indonesia

<sup>2</sup>) Community Development Officer PT Pertamina Patra Niaga AFT Adi Sumarmo, Boyolali, Indonesia

\* Corresponding author: [fitri514374@mail.ugm.ac.id](mailto:fitri514374@mail.ugm.ac.id)

### ARTICLE INFO

### ABSTRACT

**Keywords:**  
Sustainable development  
Social assets  
Women farmers group

The Ngudi Makmur and Bangun Sejahtera Women Farmers Groups are groups mentored by PT Pertamina Patra Niaga AFT Adi Sumarmo, implemented in Sobokerto Village. The implementation of the KWT program aims to increase economic potential and human resources as well as social assets in the community, which has an impact on improving welfare. This study highlights how CSR programs that focus on local potential encourage social and economic transformation in affected coastal communities through the use of water hyacinth as a source of energy and valuable products. Women play a key role in the value chain, strengthening women's empowerment. These findings confirm that local resource-based CSR can be a model for participatory development that is adaptive to the socio-ecological context of rural areas. This study uses a descriptive qualitative method with data collection through in-depth interviews and observation. The data sources used were secondary data obtained from print media, journals, and so on, which represented data on the CSR Program of PT Pertamina Patra Niaga AFT Adi Sumarmo. This study used the theory of sustainable development as a basis for analyzing the implementation of the program in responding to the community's needs to increase the social assets of the group in carrying out community empowerment. The results of this study show that there have been social changes in the form of collective movements and social change.

**Submitted:**

29 July 2024

**Revised:**

22 Juli 2025

**Accepted:**

24 Juli 2025

**Cite as:**

Fitri, Hadiyati, A. R., Setiawan, W., Negro, A. R. D., Prihatin, S. D., Fatonah, S., & Mahendra, D. C. (2025). *Empowering Women Farmers Groups to Enhance Community Social Assets: A Case Study in Sobokerto Village, Boyolali*. Jurnal AGRISEP: Kajian Masalah Sosial Ekonomi Pertanian dan Agribisnis, 24(02),741-756. <https://doi.org/10.31186/jagriseP.24.02.741-756>

## INTRODUCTION

Corporate social responsibility (CSR) is one of the important things that must be implemented by companies where they operate. Companies in carrying out social

responsibility refer to the triple bottom line principle, which means maintaining environmental, social and economic balance, where the company operates (Ariastini & Semara, 2019; Taufiq & Iqbal, 2021). In the case of this research, PT Pertamina Patra Niaga AFT Adi Sumarmo has developed two groups of farm women in Sobokerto Village through community development programs. The flagship programs of these two groups include food product manufacturing, plant planting, and waste recycling activities (Octavia et al., 2022). The purpose of this program is to increase economic potential and human resources by utilizing available natural resources, as well as empowering farm women in developing creativity and innovation (Safitri et al., 2024).

The program that has been implemented by PT Pertamina Patra Niaga AFT Adi Sumarmo is an effort to apply the triple bottom line principle, which is a bridge for companies to adapt to the work area environment (Afriani et al., 2023). The synergy of these three aspects can encourage better business sustainability and encourage the creation of harmonious relationships between companies, stakeholders, and society (Nurbaiti & Bambang, 2017). The understanding of corporate responsibility has evolved from merely seeking profit to a broader responsibility, including the creation of shared value. Implementation is generally carried out after system planning is made, where implementation is an activity, action, or procedure of a system (Pakpahan et al., 2024).

In 2023, PT Pertamina Patra Niaga AFT Adi Sumarmo, together with the Ngudi Makmur Women Farmers Group, won the Gold Proper award from KLHK, becoming one of 79 companies in Indonesia to receive the award (Prautama et al., 2024). This award confirms that the program implemented has a positive impact on the environment. Gold Proper recipient companies are expected to bring significant social change in the surrounding community through the programs that have been implemented.

Corporate social responsibility is closely related to the theory of sustainable development. Sustainable development aims to address the threatening needs of society as well as concepts that can meet the needs of society (Achmad, 2023). Sustainable development has become a development paradigm that is everywhere a slogan for international institutions, development planning jargon, conference themes, academic papers and development activists (Mensah, 2019). Sustainable development can be defined as economic improvement that meets the needs of current generations without compromising the ability of future generations to meet their needs (Carroll & Stanfield, 2018).

The quality of life and human well-being are determined by various elements, the vectors of which are in the three dimensions of economy, environment, and social. Sustainable development has a conceptual framework in the form of a sustainable development triangle. This triangle explains the three dimensions that must exist in sustainable development, namely the economic, ecological and social dimensions. The economic dimension explains economic and financial sustainability in terms of growth, capital maintenance and efficient use of resources and investment. The ecological dimension in sustainable development must integrate the carrying capacity of the ecosystem towards the protection of biodiversity. The most important dimension in sustainable development is the social dimension, as this will

bring equality, social mobility, social cohesion, participation, empowerment, cultural identity and institutional development (Serageldin, 1995).

The sustainable development triangle emphasizes stakeholders' participation in project selection and design that can improve decision-making, strengthen ownership, and include the poor and disadvantaged groups in the design of sustainable development programs. Many stakeholders currently only provide information without providing further interaction in the design of sustainable development, but with the complexity of the problem, stakeholders have the responsibility to identify problems and the empowerment to find solutions. Participation of local communities is needed in the design and implementation of such empowerment activities to build trust in conducting joint activities (Munasinghe, 2009).

The sustainable development triangle includes three main perspectives, namely economic, environmental and social, which have system domains and have different goal drives. The economic perspective is geared towards improving human welfare through increased consumption of goods and services. The environmental perspective focuses on protecting integrity and resilience, and the social perspective emphasizes the enrichment of human relationships, group aspirations, and strengths (Munasinghe, 2013).

The sustainable development triangle has not been studied in depth in the context of CSR. Previous research examining the KWT Ngudi Makmur and KWT Bangun Sejahtera programs around the operational area of PT Pertamina Patra Niaga AFT Adi Sumarmo focused on researching the level of participation of women's empowerment, analyzing the level of participation of women's groups in the program, and exposure to the success of processed products produced (Mellinia et al., 2024; Rachmadani et al., 2023; Safitri et al., 2024). Based on these data, this research discusses more deeply and comprehensively the second program of KWT Sobokerto Village as a CSR program of PT Pertamina Patra Niaga AFT Adi Sumarmo in influencing community social assets with the view of the sustainable development triangle. This research places social assets as a social network between group members by building trust relationships. Opportunities for access are widely open to other institutions for the trust that has been built through social networks, so that it can affect their lives (Riyanti & Raharjo, 2021).

The problem that arises in this program is how to integrate sustainable program practices so that they can support the improvement of community social assets. The need for a holistic and participatory approach in designing and implementing this program in order to have a sustainable, positive impact on the community and the surrounding environment (Sjioen et al., 2023). Water hyacinth waste handling has been carried out through management by local community groups. Recognizing the ecological and economic potential of the plant, Pertamina together with the community took a participatory and innovative approach by involving women's groups. This initiative aims to open new job opportunities in the creative economy sector, while encouraging sustainable community empowerment through the utilization of local resources that were previously considered waste. The purpose of this research is to provide a deeper understanding of the impact of the PT Pertamina Patra Niaga AFT Adi Sumarmo assisted group program on the fulfilment of social assets. This research is expected to determine the extent to which the

program contributes to improving the fulfilment of social assets, such as community collective social movements and social cohesion..

## RESEARCH METHOD

This research was conducted at the PT Pertamina Patra Niaga AFT Adi Sumarmo fostered group. This research focuses on the implementation of CSR programs in improving the fulfilment of community social assets. The unit of analysis of this research focuses on the Women Farmers Group (KWT) in Sobokerto Village under the CSR program of PT Pertamina Patra Niaga AFT Adi Sumarmo. This research was conducted from April to May 2024. This is qualitative research, and data collection was carried out by interview and direct observation at the research location. Interviews were conducted based on interview guidelines, and direct observation was carried out to strengthen the results of the interview. Data collection was conducted through in-depth interviews with the Head of the Women Farmers Group (KWT) and the Community Development Officer (CDO), as well as Focus Group Discussions (FGDs) involving 6 to 7 representative members of the fostered groups each. The data collection technique was purposive, with a focus on KWTs that are directly fostered by Pertamina Patra Niaga AFT Adi Sumarmo. Data analysis is carried out using descriptive qualitative methods where research data is presented, followed by a description of the research results based on the researcher's interpretation. The source of data in this study is secondary data obtained from intermediaries through print media, journals, YouTube, and so on, which represent data on the CSR Implementation Program of PT Pertamina Patra Niaga AFT Adi Sumarmo.

The data analysis method used in this research is narrative analysis. Data Credibility Testing in this study uses Extension of observation in the hope that the information obtained can be trusted and nothing is hidden, Increased persistence by realizing accuracy and continuity in research, and finally, Data triangulation is a technique for finding points with information from data that has been collected in order to measure and compare existing data. This research uses the foundation of Sustainable Development Theory to see the implementation of the program in responding to community needs and understanding the threats to sustainable development in carrying out community empowerment.

## RESULT AND DISCUSSION

### Corporate Social Responsibility and Women Farmers Group

Corporate Social Responsibility (CSR) is part of business ethics activities to mutually beneficial parties (Mutti et al., 2012). CSR is a concept of corporate social performance strategy that connects various policies, programs and results obtained from the interaction between the company and the community (Saleh & Sihite, 2020). The CSR program carried out by PT Pertamina Patra Niaga AFT Adi Sumarmo is a mentoring program for the Women Farmers Group (KWT) in Sobokerto Village, Ngemplak District, Boyolali Regency.

CSR programs have also been implemented by many companies, such as in the case of water hyacinth pollution in the water area, where the background of the problem was also experienced by the community, assisted by PT Pertamina Patra

Niaga AFT Adi Sumarmo. Similar cases have occurred in the Jatiluhur Dam area, which is supported by Perum Jasa Tirta II, and the Sangguling Reservoir area, which PT PLN Indonesia Power UBP Sangguling POMU supports. In response to these issues, the CSR activities carried out by the companies have focused on quickly resolving the water hyacinth problem.

The CSR initiatives provided by Perum Jasa Tirta II include focusing on the eradication and processing of water hyacinth, including the production of eco-enzymes. The CSR initiatives provided by PT PLN Indonesia Power UBP Sangguling POMU focus on the processing of water hyacinth for livestock feed and eco-energy production. The empowerment activities conducted by the CSR of PT Pertamina Patra Niaga AFT Adi Sumarmo for KWT members in addressing water hyacinth issues are not only focused on resolving water hyacinth problems, but also include training and mentoring to create job opportunities in the creative economy sector through food processing, thereby providing empowerment that has a long-term impact felt by the beneficiaries.

Prior to the formation of the Women Farmer group, PT Pertamina Patra Niaga AFT Adi Sumarmo already had a fostered group, namely Pokmas (Community Group) Ngudi Tirta Lestari, which was formed in 2022. The group was originally formed by BBWS in 2020. However, its activities are still limited to community participation through water hyacinth cleaning and tree planting in the Cengklik Reservoir. In 2021, AFT Adi Sumarmo began assisting Pokmas. Pokmas has a program of efforts to deal with water hyacinth weeds, which are the cause of sedimentation in the Cengklik Reservoir, through the production of water hyacinth organic fertilizer, which is carried out in Dukuh Turibang in Sobokerto Village, to replace the use of chemical fertilizers in agriculture.

PT Pertamina Patra Niaga AFT Adi Sumarmo then started its initiative by forming a farmer women group (KWT), which aims to develop an integrated program by the fertilizer program created by Pokmas. In the integration scheme, Pokmas, which has an organic fertilizer production program in collaboration with farm women groups, focuses on vegetable nurseries. This women's farmers' group consists of homemakers from families whose primary livelihood is fishing and farming. These fishermen depend on activities around the dam, which the growth of water hyacinth has severely impacted. All informants are also active members of the Women Farmers' Group (KWT). The farmer women's group then uses the results of the fertilizer produced by Pokmas as capital to plant vegetable seedlings/manage the KWT agricultural demonstration plot.

KWT Ngudi Makmur also makes efforts to handle the sedimentation of Cengklik Reservoir by processing one of the sources that causes water pollution factors in the reservoir, namely, used cooking oil waste that is disposed of carelessly or enters the reservoir water. Used cooking oil waste is processed into multipurpose soap products and aromatherapy candles. In addition, they also produce processed food from the fishery potential of Cengklik Reservoir. As for KWT Bangun Sejahtera, it manages two yard lands that are used as vegetable demonstration plots; besides that, it also makes processed food products from the agricultural potential of Sobokerto Village vegetables. There is also a snack ordering business. Thus, a positive ecosystem program is formed where community groups support each other and work together to improve mutual welfare.

The process of forming a Women Farmers group began with a focus on two groups, namely KWT Ngudi Makmur and KWT Bangun Sejahtera. The establishment of KWT Ngudi Makmur in 2022, but for KWT Bangun Sejahtera 2016 it was formed and already had a decree from the Boyolali Regent, but was vacuumed and reactivated by PT Pertamina Patra Niaga AFT Adi Sumarmo in April 2023 with a new membership reorganization, so that changes were also made to the group data listed on the Group Decree. The initial process of forming the group began when the CDO of PT Pertamina Patra Niaga AFT Adi Sumarmo noticed the hamlet, where most of the population worked as farmers and the existence of crops that often did not have a decent selling price, causing losses to farmers.

The two hamlets selected for the formation of KWT are Turunan Hamlet and Gelaran Hamlet. After determining the hamlets where the KWTs would be formed, a meeting was held between the Community Development Officer (CDO) of PT Pertamina Patra Niaga AFT Adi Sumarmo and the representatives of the Wanita Tani groups. Sumarni led the Wanita Tani groups for KWT Ngudi Makmur and Retno Murtiningsih for KWT Bangun Sejahtera.

The meeting aimed to discuss plans and initial steps in forming the Women Farmers Group. In the process of determining members between the two KWTs, there are differences for KWT Ngudi Makmur, which is done openly for people who are interested in joining as members of KWT Ngudi Makmur. Whereas for KWT Bangun Sejahtera, through door-to-door appointment by being contacted directly to the party concerned by the chairman of KWT Bangun Sejahtera, in determining membership from the beginning of the AFT CDO Adi Sumarmo has given direction that KWT membership must be from vulnerable people in the area where the program is carried out, where vulnerable people are included in the Integrated Social Welfare Data / DTKS Sobokerto Village or PHK or KIS recipients and others.

In 2023, PT Pertamina Patra Niaga AFT Adi Sumarmo, through the KWT Ngudi Makmur program, won the Gold Proper out of 79 companies in Indonesia (KLHK, 2023), which shows that the company has implemented environmental programs properly and responsibly. In addition, Marni, who is the head of the Ngudi Makmur group, also received the title of "Local hero". This award recognizes Marni's contribution and dedication in leading the Women Farmers group to success. As a "local hero", Sumarni is considered an inspiring and influential figure in her community and has a positive impact on the surrounding environment. Sumarni also contributed to the use of her house for the construction of the production house and production centre of KWT Ngudi Makmur..

Ngudi Makmur Women Farmers Group (KWT) has developed a creative program that involves making food products and recycling waste cooking oil and fish bone waste. The making of these products aims to solve the problem faced by fishermen, namely the pollution of used cooking oil, which disrupts the productivity of fishermen. The recycling of used cooking oil waste is the main focus of the CSR program implementation by PT Pertamina Patra Niaga AFT Adi Sumarmo.

This group utilizes processed catfish and tilapia bones to create innovative and value-added snack sticks. All processed food products already have legality and licensing ranging from NIB, PIRT, and Halal MUI, with packaging that already uses aluminium foil, so that they compete in the market. In addition, they also run a waste recycling program by converting used cooking oil into aroma therapy candles and

dish soap, demonstrating their commitment to supporting environmentally friendly practices and effective resource reuse.

On the other hand, the Bangun Sejahtera Women Farmers Group (KWT) also plays a role in producing value-added food products. They focus on making sticks from kale, a well-managed KWT agricultural product. By utilizing kale as the main ingredient, KWT Bangun Sejahtera not only creates healthy and nutritious food products, but also supports local agriculture and environmental sustainability. KWT Bangun Sejahtera's activities that have been carried out with AFT Adi Sumarmo have also received support from the Boyolali Food Security Office through funding support of Rp 25,000,000.00 for the procurement of seedling houses and agricultural businesses. The two yards used for agricultural demonstration plots are also supported by the contribution of group members who lend their land free of charge for the course of activities.

Corporate Social Responsibility (CSR) initiatives carried out by PT Pertamina Patra Niaga AFT Adi Sumarmo through the Ngudi Makmur Women Farmers Group (KWT) and KWT Bangun Sejahtera have had a significant impact on gender equality and local economic development. The presence of KWT in the community plays an important role in involving women to build economic independence so that it can fulfil the goals of sustainable development, especially in the aspects of gender equality and community economic empowerment.

The form of assistance provided by PT Pertamina Patra Niaga AFT Adi Sumarmo to KWT Ngudi Makmur and KWT Bangun Sejahtera is educational assistance with the community mentoring method. This assistance is designed to provide guidance, training, and support to the two groups in order to increase their knowledge, skills, and capacity in managing the programs being run. The assistance carried out is by conducting direct training in the management of making processed cooking oil recycling and making processed food sticks made from catfish bones, tilapia bones and kale vegetables.

During the educational assistance, PT Pertamina Patra Niaga AFT Adi Sumarmo seeks to strengthen the capabilities of both groups in various aspects, ranging from management programs, production techniques, to product marketing. The community mentoring method is used to ensure that the mentoring is participatory, sustainable, and focused on the needs and potential of each group (Rahman, 2018). This mentoring can be seen by meeting once a month between the CDO of PT Pertamina Patra Niaga, AFT Adi Sumarmo, KWT Ngudi Makmur, and KWT Bina Sejahtera. In this meeting, a monthly evaluation of the sustainability of the program is carried out to see how far the progress of the program is, and the problems faced by the group, with evidence from the group itself.

The members of the Women Farmers Group (KWT) had difficulty promoting their products. They are forced to approach stalls directly to introduce their products to be accepted or marketed in the stalls. Although they have tried online marketing, they are constrained by limited Human Resources (HR). PT Pertamina AFT Adi Sumarmo can overcome these obstacles by implementing mentoring, education, and evaluation as an effort to help deal with the obstacles that arise during the implementation of CSR programs.

PT Pertamina Patra Niaga AFT Adi Sumarmo's assistance to KWT can be seen from the programs that have been implemented in each group that has a different

focus, such as KWT Ngudi Makmur, which focuses on handling waste problems, such as water hyacinth, fish waste, and used cooking oil in the surrounding environment. In contrast, KWT Bangun Sejahtera focuses on the potential of plants in the surrounding environment, namely kale.

The success realized by these KWTs is inseparable from the support of PT Pertamina Patra Niaga AFT Adi Sumarmo in providing management assistance, training, and facilitating the legality of KWT-assisted products. Assistance from the Food Security Office can form the strength of good relationships among group members. These supporting factors must also be maintained consistently in terms of production, marketing and good relationships with each member, which is a challenge for KWT.

The programs implemented by the two KWTs of Sobokerto Village obtained a significant social impact and financial impact for the two groups. The social impact of the formation of two Women Farmers groups, KWT Ngudi Makmur and KWT Bangun Sejahtera, can include several important aspects:

### *Social Jealousy*

In the context of group formation, there is a sense of social jealousy among group members and people outside the group. In the process of determining members between the two KWTs, there are differences for KWT Ngudi Makmur, which is done openly for people who are interested in joining as members of KWT Ngudi Makmur. While for KWT Bangun Sejahtera, through door-to-door appointments, the head of KWT Bangun Sejahtera contacts the party concerned directly. Although they have differences in the process of recruiting members, they have similar social problems, namely, social jealousy from community groups that are not members of KWT. (This does not need to be written because it is irrelevant; no jealousy occurs because the people who are not members are also not interested in being bound in the group. The right jealousy occurs in other dukes who have not received assistance. The beginning of the formation of KWT Ngudi Makmur, although it was done openly, was also done door to door from several names that had been recorded to meet the criteria of vulnerable people who could join the group.

### *Addition of Knowledge and Relationships*

Through the activities and programs conducted by KWT, group members can increase their knowledge in agriculture and natural resource management through the program of making fish bone sticks and kale sticks. In addition, with the cooperation between groups, members also have the opportunity to expand their network of social relations, both with their own group members and with external parties such as traders where they leave their homemade products, as well as external parties from the results of stakeholder networks, such as related agencies and KWT/MSMEs in Boyolali and surrounding areas.

### *Social Adaptation*

Group formation can strengthen the social adaptation of group members to demands that require change. This can be seen in the community's adaptability in managing the program by conducting product offering activities from stall to stall. By establishing cooperation, sharing knowledge, and supporting each other, group members can more easily adapt to changes and strengthen closeness and



togetherness in the group. Group members, especially group leaders, are also more confident in communicating with stakeholders/speaking in forums, which they had not been able to do before when they were not members of KWT.

Meanwhile, in terms of financial impact, the financial management of the group is an important aspect that needs to be considered:

### ***Group Financial Management***

Both KWTs need to have a transparent and accountable financial management system. This includes properly recording income and expenditure, making regular financial reports, and monitoring the use of group funds. However, until now, the income earned by the group is still considered as savings, which are then used as turnover capital to maintain the desirability of the programs that have been run.

### ***Wise Utilization of Funds***

The funds managed by the group are wisely utilized for the common good, the determination of budget plans, and the allocation of funds for productive activities. With income funds that are still minimal and have not yet generated profits for the group, financial management is the key to maintaining the wishes of the group's programs. Therefore, the group focuses their financial utilization on the turnover of business capital to ensure the sustainability and growth of the programs that have been run.

## **Implementation of Sustainable Development Perspectives on CSR Programs in The Sobokerto Women Farmers Group**

Sustainable development aims to ensure dignified living conditions. It is linked to human rights by creating and maintaining alternative access to lifestyles (Prabu Aji & Kartono, 2022). There is a principle of justice between current and future generations that is taken into consideration in using social, economic and environmental resources. Comprehensive protection is sought to maintain biodiversity and genetic diversity (Pertiwi, 2017). This research mostly refers to the foundation of the social dimension concept in the sustainable development triangle to see the fulfilment of social rights as an asset in society for sustainable livelihoods, because the social dimension focuses on community welfare and empowerment (Serageldin, 1995).

The social assessment contained in the social dimension focuses on people who are the resources for sustainable development (Astuti, 2022). Culture, society and organizations are the cornerstones of development programs (Kurniawan Saputra et al., 2018). Community responses that shape needs are often considered different from state goals, so that the problems faced are often ignored by interested parties. Based on the findings of researchers in the field, there are forms of sustainable development that are reviewed based on three dimensions, namely economic, ecological and social.

### ***Economy***

The economic dimension in sustainable development is the main goal whose impact is expected to be sustainable. The indicators of the economic dimension in sustainable development are sustainable growth, capital and efficiency. Companies in implementing CSR also make economic improvement the main goal to help

improve community welfare. PT Pertamina Patra Niaga AFT Adi Sumarmo implements CSR programs through the Ngudi Makmur and Bangun Sejahtera Women Farmers Groups. The economic improvement felt by the two KWTs from the presence of the CSR program is the additional income for group members, the majority of whom are farmers and housewives. The formation of farmer women's groups in Sobokerto Village provides hope for sustainable economic growth to each group member through the products they have processed and have marketed.

KWT in Sobokerto Village, in collaboration with PT Pertamina Patra Niaga AFT Adi Sumarmo, can take advantage of existing opportunities. KWT in Sobokerto Village utilizes tool assistance as part of the CSR program and abundant natural resources to increase their income (capital) to encourage sustainable economic growth. These activities can encourage the establishment of farm women groups in Sobokerto Village from the sale of products as a capital turnover to achieve program sustainability. Based on the results of this analysis, the CSR program implemented has been able to influence the economic dimension of the community, especially in KWT Ngudi Makmur and KWT Bangun Sejahtera. The current obstacle faced by farm women groups in managing MSMEs is marketing their products. From the activities carried out by the two KWTs assisted by AFT Adi Sumarmo in Sobokerto Village, there is then a new economic turnover that supports the development of Cengklik Reservoir tourism from the sale of various products resulting from the optimization of agriculture and fisheries which are sold through a deposit scheme to food stalls at the Cengklik Reservoir. The fishery and agricultural potential of Sobokerto Village has also now been processed into diversified products with economic value, which previously did not provide economic value to the community.

### *Ecology*

Corporations in conducting modern development must consider one of its aspects, namely the ecological dimension. Ecology includes subtypes of renewable and non-renewable resources and services provided by ecosystems. Maintaining ecological ecosystems can foster environmental efficiency so that it can contribute to sustainability that is connected to the economic dimension, so that it can run simultaneously (Kleine & von Hauff, 2009). The indicators described in this economic aspect include ecosystems, inter-ecosystem integrity, natural assets and biodiversity.

The implementation of the program carried out by PT Pertamina Patra Niaga AFT Adi Sumarmo in carrying out sustainable development also focuses on the ecological dimension of the program, namely the use of natural assets by KWT Bangun Sejahtera, such as kale, which is widely planted in rice fields. People who work as kale farmers can reprocess the plants in the form of processed kale stick food and kale crackers. In addition, KWT Bangun Sejahtera also contributes to ecological efforts to restore barren land into productive agricultural demonstration plots using water hyacinth organic fertiliser produced by the Ngudi Tirto Lestari community group. Fish waste processing is also carried out by KWT Ngudi Makmur, namely by processing catfish and tilapia spines, with the processed results being made into food sticks. KWT Ngudi Makmur also processed household waste in the form of used cooking oil to be utilised as environmentally friendly laundry soap and aromatherapy candles.

Based on the analysis above, the fulfilment of the ecological dimension in the process of sustainable development in the Sobokerto Village farmer women's group has utilised the available natural resources. The implementation of the *jelantah* oil management program makes it easier for fishermen to carry out activities and reduce environmental pollution.

### ***Social***

The social dimension is the part that has experienced many changes as a result of the presence of PT Pertamina Patra Niaga AFT Adi Sumarmo's CSR program. The indicators of the social dimension are equality, social movement, and empowerment. Social changes that occur in KWT in Sobokerto Village can be seen from the programs that have been implemented. The presence of PT Pertamina Patra Niaga AFT Adi Sumarmo has now encouraged gender equality in the implementation of the program, where the formation of farmer women's groups serves as a representation of women in carrying out social movements.

Empowerment carried out on KWT in Sobokerto Village is educational assistance with community mentoring methods. The assistance provided to KWT members has produced processed products such as kale sticks, kale crackers, fish bone sticks, tilapia and catfish crackers and utilising household waste in the form of used cooking oil into dish soap and aromatherapy candles to encourage collective movements and community social cohesion, especially among members of KWT Ngudi Makmur and Bangun Sejahtera.

Based on this analysis, the fulfilment of the social dimension in both KWT Sobokerto Village can be fulfilled by encouraging equality, social movements and empowerment, especially in women's groups through collective movements and social cohesion. Here, the routine of regular meetings every month conducted by each KWT becomes a means of strengthening social relations between group members. Group activities that provide economic value to the group also create KWT social activities, such as giving donations from profits to orphans around Sobokerto Village every month.

### ***Social Asset***

The main focus in this research is the sustainable development of social assets in the form of social resources such as social networks, group members, relationships and trust, as well as extensive access to social institutions with the aim of improving their livelihoods (Riyanti & Raharjo, 2021). It is expected that an activity or program can have an impact on the realisation of equality, social mobility, solidarity, involvement, empowerment, cultural identity, and community development (Serageldin, 1995). It needs to be recognised that the presence of assistance from PT Pertamina Patra Niaga AFT Adi Sumarmo had an impact on increasing the social assets of the two KWTs Ngudi Makmur and Bangun Sejahtera, which will be described in the following points (Munasinghe, 2009)

The assistance provided to KWT Ngudi Makmur and Bangun Sejahtera was able to provide results in the form of making food products with processed food derived from the potential of fisheries and agriculture in the region. Another form of assistance is in the form of processing used cooking oil waste recycling, which can add to the community's economy. Realising the results of the assistance results in the

ability of individuals to develop mutual trust and division of labour based on expertise, this creates a collective group movement to achieve common goals.

In the production of kale sticks and activities in the demonstration plot, the chairperson of KWT Bangun Sejahtera conducted a presence to see which members were present. As for Ngudi Makmur KWT, the members have the initiative to start the production with or without instruction from the chairperson. It can be seen from the two forms of production activities in the two KWTs that there are unwritten rules that are agreed upon and run culturally. This means that there is an increase in institutional and organisational quality, including formal rules as well as traditional or informal understandings that govern behaviour, as well as individual entities and social groups that operate within the institutional framework.

Furthermore, in the marketing process, the two KWTs do marketing by entrusting their products to stalls in the surrounding villages and to several souvenir shops around Boyolali. Unfortunately, the sales results have not been optimal, so there is an awareness to start trying marketing through digital platforms or e-commerce. However, this is still constrained by human resources who are willing and able to run it. From this, there are efforts to adapt socio-political institutions. This means that there is an effort to fulfil the need for socio-political institutions that are able to adapt to meet the challenges of modernisation.

In the implementation of activities, the head and members cooperate in harmony and according to their portions. In KWT Bangun Sejahtera, there is a delegation of tasks according to the expertise of the members. While in KWT Ngudi Makmur, the members have the initiative in implementing the program, thus forming group independence. Based on these two phenomena, the formation of trust, power, and security is an important factor of the social cognitive dimension. Levels of trust and power influence levels of co-operation and access to resources, while secure relationships play an important role in good governance.

Increased knowledge and skills of individuals influenced the implementation of programs in the two KWTs and the building of relationships with other groups. The head of KWT Ngudi Makmur, who was awarded the title of local hero in 2023, was asked to be a resource person for candle making for employees of PT Pertamina Patra Niaga AFT Adi Sumarmo and UMKM Berkah Makmur in Tegalrejo Village. Increasing members' skills can strengthen social ties and form social bridges. Social bonds result in increased trust and shared activities within the same community, while social bridges mean connections are built between different communities.

These aspects of social assets are important to consider in the context of achieving the sustainable development goals, as they influence community collective movements, social cohesion and welfare improvement. The creation of harmonious relationships facilitates the formation and development of Women Farmers Groups. They play a significant role in achieving SDG Goal 5 by empowering women, increasing their participation in the economy and promoting gender equality in rural communities.

## CONCLUSION

PT Pertamina Patra Niaga AFT Adi Sumarmo carries out corporate social responsibility by fostering farm women groups in Sobokerto Village, namely KWT Ngudi Makmur and Bangun Sejahtera. The empowerment produces processed food

products such as kale sticks, kale crackers, fish bone sticks, tilapia and catfish crackers and utilizes household waste in the form of used cooking oil into dish soap and aromatherapy candles. The form of collective movement present in this empowerment activity is the emergence of social change. This social change is marked by members having the same goal to encourage the sustainability of the program, so that it can help improve their economy. The next social change is the creation of social cohesion in the community, which can be seen from the increased trust to carry out joint activities in the Ngudi Makmur and Bangun Sejahtera Women Farmers Group.

The impact of these empowerment activities affects social assets by building collective movements and community social cohesion. In writing about the impact of PT Pertamina Patra Niaga AFT Adi Sumarmo's CSR initiatives, it is important to highlight not only the positive outcomes but also to consider potential challenges or areas for improvement. While the empowerment of farm women groups in Sobokerto Village through the production of processed food and household waste utilization has led to significant social changes and increased social cohesion, it is crucial to assess the sustainability of these efforts. Future initiatives should focus on ensuring that the empowerment activities are scalable and adaptable to other regions, and that the beneficiaries are equipped with the necessary skills and resources to maintain and expand these activities independently. This could involve continuous training, access to markets, and partnerships with local government or other organizations to ensure long-term success and resilience of the social assets being built.

## **AUTHOR CONTRIBUTION STATEMENT**

[Author 1], [Author 2], [Author 3], and [Author 4] were responsible for conceptualization, research design, data collection, data processing, and manuscript preparation, including finalization of the writing. Their collaboration ensured methodological rigor, analytical accuracy, and coherence of the arguments presented in the article.

[Author 5] provided research supervision, analytical guidance, and critical review for manuscript improvement. [Author 6] and [Author 7], representing PT Pertamina Patra Niaga AFT Adi Sumarmo, contributed through funding acquisition and facilitated access to the research site. All authors made significant contributions within their respective roles and approved the final version of the manuscript prior to submission.

## **DECLARATION OF COMPETING INTEREST**

This research was supported by PT Pertamina Patra Niaga AFT Adi Suarmo through funding and facilitation of access to the research site. However, the research design, data collection, analysis, interpretation of result, and manuscript writing were entirely conducted by the authors affiliated with the university. The authors declare that they have no competing interest that could have influenced the outcomes reported in this article.

## ACKNOWLEDGMENT

Thanks to all those who have helped the author in compiling this paper, namely Silverius Djuni Prihatin as a supervisor, the Sobokerto Village community, especially the Ngudi Makmur and Bangun Sejahtera Women Farmers Groups, and PT Pertamina Patra Niaga AFT Adi Sumarmo. The author would like to inform you that the author received funding assistance to publish the journal by PT Pertamina Patra Niaga AFT Adi Sumarmo.

## ETHIC STATEMENT

This study did not involve vulnerable groups or highly sensitive issues that required formal ethical approval. This study focuses on participants who are not categorized as at risk populations, so institutional ethical approval is not required. However, this study strictly adheres to the principles of social research ethics, including respect for autonomy, confidentiality, and voluntariness.

All participants were provided with clear information about the purpose of the research, the nature of their involvement, and their rights in this study. Participation was entirely voluntary, and informed consent was obtained prior to data collection. The authors affirm that this research was conducted responsibly and ethically in accordance with academic standards.

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