



Empowering Communities through Innovative Programs: A Review of Village Tourism Program and Integrated Waste Management

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Abstract

This research presents successful community empowerment programs focusing on sustainable tourism development and waste management in Prabumulih, Indonesia. The Desa Wisata Burai Program, initiated in 2016 by Pertamina EP (PEP) Prabumulih, aimed to enhance the tourist experience by providing recreational facilities, such as saung, galleries, and kiosks, while supporting local artisans. Alongside this, the SARAH (Sampah Jadi Berkah) Program, started in 2020, focused on integrated waste management, transforming waste materials into compost and innovative upcycled products. Collaborations with local institutions resulted in the creation of herbal soaps and probiotic beverages. Both initiatives demonstrated positive social, economic, and environmental outcomes, including increased income generation, environmental preservation, and strengthened community bonds. The programs' successes underscore the importance of community-based approaches in sustainable development, providing replicable models for similar regions. The Desa Wisata Burai and SARAH Programs exemplify how targeted interventions can foster community empowerment, environmental conservation, and socio-economic growth, highlighting the significance of collaboration between various stakeholders to achieve long-term sustainable development goals.



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1. Introduction

Village tourism is increasingly flourishing. Not only in terms of the growing number of villages, but also in the diversification of tourism categories. Some villages focus on beach and marine tourism, natural attractions, cultural and religious experiences, and even combine multiple tourist attractions in one village. According to the Ministry of Tourism and Creative Economy (Kemenparekraf), in the Indonesian Village Tourism Awards 2022, there were 3,416 registered village tourism destinations spread across 34 provinces. (Kemenparekraf, n.d.)

There are seven important aspects to consider in developing village tourism. First, visitor attractions, which involve assessing whether the village offers unique and authentic tourism products with creative and diverse offerings. Second, homestays, where the focus is on enhancing service quality standards and preserving the local cultural architecture. Third, digital and creative evaluation, which encompasses accelerating the digital transformation and

creating creative content. Fourth, souvenirs, aimed at exploring the potential for creativity and local wisdom-based artisanal products. Fifth, public restrooms, to assess efforts in providing facilities for the comfort of tourists. Sixth, CHSE (Cleanliness, Health, Safety, and Environment Sustainability) compliance, evaluating the implementation of national standards to ensure cleanliness, health, safety, and environmental sustainability. Lastly, village institution assessment, which includes evaluating the establishment of legal entities and sustainable management practices (Schafft, Harmon, Robinson, & Green, 2010).

In accordance with UU RI Nomor 10 Tahun 2009 concerning Tourism, Article 4 states that tourism aims to promote economic growth, improve the welfare of the people, alleviate poverty, address unemployment, preserve nature, environment, and resources, advance culture, enhance the nation's image, strengthen national identity and unity, and foster international friendship. Based on this legal foundation, it is evident that villages can also develop tourism. Village tourism, in terminology, is a form of integration between attractions, accommodations, and supporting facilities presented within a community structure that is integrated with prevailing customs and traditions (Nuryanti, W 1993). Village tourism can also be interpreted as a community that consists of residents in a limited area who can interact directly under a management system and share a common concern and awareness to play a collective role by utilizing their diverse individual skills (UU Indonesia, 2019).

The challenge lies in defining the ideal form of tourism developed through village tourism. According to (Crowther & Seifi, 2021), sustainable tourism can simultaneously boost a nation's economy, stimulate businesses, and promote preserving natural resources, social values, and culture for the current generation to benefit future generations. This chapter uncovers valuable insights gained from an integrated and organized effort to enhance the quality of life by managing the provision, development, utilization, and preservation of sustainable resources.

One notable example is Desa Burai, located in the Tanjung Batu District, Ogan Ilir Regency. Geographically, it covers an area of approximately 2.66.09 km², surrounded by rivers and extensive marshlands spanning about 11,000 hectares. This geographical setting makes the village relatively isolated and not easily accessible. Pertamina EP Prabumulih Field recognized the unique potential of this location for both the local community and the Ogan Ilir Regency government, leading to their decision to conduct TJSI activities in the area. Desa Burai is abundant in natural resources, cultural assets (such as the traditional dance "tari bu umi"), local crafts (songket), and culinary delights like "kelempang" and various fish dishes. However, the underutilization of these resources, lack of education on village tourism development, and insufficient capacity-building efforts have resulted in the inability to harness the full potential. Consequently, social issues such as poverty and high and widespread unemployment have arisen (Harrisa, Kristanto, Sendra, & Ridho, 2023).

The Burai Desa Wisata (Bu Dewi) program emerged from discussions between Pertamina Asset 2 Prabumulih and the Ogan Ilir Regency Government during a stakeholder engagement event. In 2017, both parties made a joint commitment to transform Desa Burai into a thriving village tourism destination. The achievement of this goal does not rest solely on Pertamina EP Prabumulih or the Ogan Ilir Regency Government (Sari & Sitorus, 2021). The active involvement of the Desa Burai Government and other community-driven actors is key to building and developing the local Natural Resources (SDA) and Human Resources (SDM). Their participation plays a crucial role in ensuring the success of this initiative.

Before developing the Natural Resources (SDA) and Human Resources (SDM) of Desa Burai, the first step taken by the Ogan Ilir Regency Government and Pertamina EP Prabumulih in 2018 was to construct road infrastructure connecting Desa Burai to surrounding areas. This road provided Desa Burai with access to the outside world and indirectly opened opportunities for outsiders to visit the village. Additionally, the newly accessible land route significantly reduced travel time for the local community to reach Palembang or other major cities. Before the road construction, traveling via river routes required several days to reach the same destination.

From 2019 to 2020, Pertamina EP Prabumulih Field focused on providing facilities, infrastructure, and enhancing the quality of the local human resources. Subsequently, during 2021-2022, Prabumulih Field concentrated on marketing the tourism products and the products of partner groups while also planning the exit strategy for the Burai Desa Wisata Program. Unfortunately, the tourism sector faced significant setbacks due to the COVID-19 pandemic from 2020 to early 2022. The sharp decline in the number of tourists adversely impacted the consumption of cultural products in tourism areas. However, PEP Prabumulih and the Desa Burai government responded proactively by initiating collaborations with universities in the South Sumatra region to open opportunities for internships, benchmarking studies, practical work, or community service programs in Desa Burai. These initiatives aimed to revitalize tourism in the village. The partnerships with universities also align with Prabumulih Field's strategic plan for 2018-2022 (Marshesa & Yulianda, 2021).

In addition to Burai, Pertamina Asset 2 Prabumulih recognizes the tremendous potential in Desa Lembak, located in Kecamatan Lembak, Kabupaten Muara Enim, South Sumatra Province. During the Covid-19 pandemic, a plywood factory in Desa Lembak underwent layoffs, resulting in 100 factory workers losing their jobs. However, amidst these challenges, Desa Lembak possesses a hidden gem waiting to be polished. The natural Shuji Lake and historical relics from the Japanese colonial era add to the village's allure. The lake, nestled amidst rubber plantations, offers mesmerizing natural beauty, and there are various potentials for development, such as the culinary craft of kerupuk kelempang. The name "Shuji" was derived from its historical significance as the shared kitchen for the Japanese forces during the Independence War, located only 1 km from the former Japanese airport.

The blend of history and natural beauty creates the appeal of Shuji Lake as a tourist destination. In response to this potential, Pertamina Prabumulih Field collaborated with the Desa Lembak government, local heroes, and 40 individuals impacted by the plywood factory layoffs, to promote the development of Shuji Lake as a tourist attraction. This initiative optimizes the village's potential and resources. The tourism concept not only targets economic aspects but also aims to preserve the local historical and cultural values of Desa Lembak. Pertamina Prabumulih Field, together with the Sadar Wisata (Pokdarwis) group at Shuji Lake, has initiated various activities since 2020, including water tourism, historical tours, cultural performances (Tari Tigal), the development of kerupuk kelempang lembak culinary, souvenirs, photo spots, and tour packages. This community empowerment program is known as "Mbak Dewi Shuji" (Lembak Shuji Village Tourism).

Meanwhile, in Prabumulih City, a different challenge arises with the issue of waste management. Each year, 34,097.21 tons of waste are generated in Prabumulih City, with 67% or approximately 22,701 tons remaining unprocessed or burned. The Prabumulih City Landfill is estimated to exceed its capacity by 2023. Moreover, waste pollution is prevalent, including air pollution from burning waste and water pollution from waste disposal into rivers. The ongoing Covid-19 pandemic has also hindered the Integrated Waste Management Movement due to activity restrictions during PPKM (Enforcement of Restrictions on Community Activities). Despite these challenges, there are opportunities in urban farming with 5.25 hectares of fertile land in Kelurahan Majasari, as well as facilities for inorganic waste processing in Kelurahan Sungai Medang. The programs include the Inorganic Waste Processing Program (PAK DALANG) and the Organic Waste Processing Program (SARAH), aiming to recycle plastic waste and utilize organic waste beneficially.

On the one hand, there is the issue of waste generation. On the other hand, the community seeks activities that bring benefits to themselves and others, both economically, environmentally, and socially, while preserving traditions and culture. There is a need for ideas and concepts that can mobilize the community to collectively create a zero-waste program, covering the entire waste management process from upstream to downstream (Ambarsari, Dewi, & Darmadja, 2022). In response, the local government issued a circular, Walikota Prabumulih Number 660/194/DLH/2019, concerning the Reduction of Plastic Bag Usage. One of the points of this policy is to involve all business implementers in Prabumulih City to take action and contribute to reducing waste generation by 20% in 2019. PT Pertamina EP Prabumulih Field, as a business entity, has been contributing to waste reduction in Prabumulih City since 2018 through the CSR Program "Sampah Jadi Berkah" (SARAH) and "Pak Dalang" (Recycling Program). These programs have been implemented in three pilot areas, namely Kelurahan Muntang Tapus, Kelurahan Majasari, and Kelurahan Sungai Medang, with the hope of replication in other areas. Lauesen (2021) mentions that waste from Prabumulih is hazardous to the ecosystem and humans and has been a long-standing issue. Solutions cannot be singular due to their varying complexities. It is evident that Prabumulih significantly impacts our lives; hence corporate social responsibility (CSR) initiatives must have a significant effect.

Managing organic and inorganic waste becomes economically valuable products. Furthermore, the community is encouraged to face the new normal conditions caused by the COVID-19 pandemic, which has shifted the focus of activities from waste management to mobilizing the community to adapt and be consistent in facing the new normal. Innovations in waste utilization within the program have become a new alternative in preventing the spread of the COVID-19 pandemic, at least within the program's scope.

2. Materials and Methods

This research utilizes qualitative research methodology with a descriptive analysis approach. According to Creswell (2016), qualitative research is a method used to describe, explore, and understand the meanings attributed by a group of individuals to social or human issues. In this context, the "Program Burai Desa Wisata" (Bu Dewi) has evolved since its inception in 2018, starting with the development of supporting facilities and infrastructure for village tourism. In 2018, PEP Prabumulih, in collaboration with the village government, initiated transforming Desa Burai

into a "Desa Warna-Warni" (Colorful Village). This concept was inspired by existing village tourism in Java, as it was believed to attract the attention of local tourists. Furthermore, there was no "Desa Warna-Warni" concept in South Sumatra at that time. To support this idea, PEP Prabumulih provided 180 cans of paint to the village government for painting activities in 327 locations, including houses, public roads, public facilities, the village office, and others. The painting activities at these 327 locations were carried out collectively through community participation, involving all elements of Desa Burai, including the village government (Nassaji, 2015).

During the same year, PEP Prabumulih Field also revitalized a multipurpose building or meeting hall. This project aimed to ensure that all residents of Desa Burai could conduct meetings comfortably and adequately, whether it was community gatherings or meetings with government stakeholders. Additionally, PEP Prabumulih Field constructed two bridges leading to Sungai Kelekar, a picturesque and Instagrammable spot for photos during the rainy season. During the dry season, these bridges offered an alternative route for tourists to explore the banks of Sungai Kelekar. The efforts to develop and improve the village's infrastructure aimed to create a more attractive and accessible destination for tourists.

The research concludes that the "Program Burai Desa Wisata" (Bu Dewi) has undergone significant developments since its inception, with various projects and initiatives enhancing the village's potential as a tourist destination. These efforts have been achieved through the collaborative work of PEP Prabumulih Field, the village government, and the local community. Implementing these programs has positively impacted both the environment and socio-economic aspects of Desa Burai. The research findings have also emphasized the importance of sustainability and self-reliance for the future success of these village tourism programs.

In 2019, PEP Prabumulih provided tourism-supporting facilities, including eight huts, one gallery, and one stall. These facilities, such as huts, aim to offer a leisurely resting spot for tourists to enjoy the panoramic view of Kelekar River. Additionally, the establishment of the gallery and stall aimed to centralize the sale of local tourism products produced by the community of Burai Village. In conjunction with constructing huts, galleries, and stalls, PEP Prabumulih also facilitated ten packages of floats and tires for river exploration activities. These floats and tires were intended to be managed by the Burai Indah Tourism Awareness Group (POKDARWIS) and offered for rent to tourists.

In 2020, two additional huts were constructed in Burai Village, bringing the total number of huts built by PEP Prabumulih to 10. Furthermore, PEP Prabumulih established a swimming pool with a sunset panorama to diversify the range of tourism packages to attract visitors of various age groups. The same year, PEP Prabumulih provided one military-style tent to support camping activities in Burai Wisata Village. During 2021, PEP Prabumulih extended assistance in the form of a boat intending to increase the number of boats available for rent by the Burai Indah Tourism Awareness Group (POKDARWIS). This endeavor was intended to augment the community's income from boat rentals. Additionally, in the same year, PEP Prabumulih constructed a designated area called Burai Park to serve as an icon of Burai Village. The park was designed to become a unique and attractive tourist photo spot. Over four years, PEP Prabumulih successfully erected various facilities and infrastructure to support the activities of Burai Wisata Village. Consequently, by 2022, PEP Prabumulih concluded its development and provision of facilities, as Burai Wisata Village has achieved self-sufficiency. This significant achievement exemplifies the program's capacity to foster independence and sustainability, resulting in a promising tourism destination equipped with adequate amenities for visitors (Creswell & Creswell, 2017).

The formation of groups was tailored to suit the respective activities of the Bu Dewi program, specifically related to the development of tourism products, such as purun crafts, songket crafts, and fish-based culinary creations. In 2018, the Tourism Awareness Group (Pokdarwis) was established as the managing entity responsible for the development of Burai Wisata Village. Subsequently, in 2019, the Purun Warna-warni Group (Purwani) and the Songket Burai Group (SORAI) were formed. The Purwani Group, focusing on purun craft activities, holds significance in the local peatland community. On the other hand, the Sorai Group focuses on traditional songket weaving. In the same year, the Fish-based Culinary Creations Group (KOI) of Burai was established, centering its activities on fish-based culinary processing. As a result of the formation of these groups, 33 members were comprising 16 from the Purwani Group and 17 from the Fish-based Culinary Creations Group (KOI) of Burai.

The establishment of these groups was accompanied by capacity building through various training programs, including purun craft training, fish-based culinary product training, songket craft training, and tourism village management training. In 2019, PEP Prabumulih collaborated with the Tajung Atap Village Cooperative as an instructor to provide fundamental understanding and training in crafting purun-based products. The training encompassed the required materials, the process of crafting, and the essential considerations throughout the production. At the onset of the training, the 16 members of the Purwani Group were divided into three segments: the first group of five members was focused on the cleaning, sorting, pounding, and dyeing process; the second group of five members was dedicated

to the weaving process of purun; and the third group of six members was tasked with creating patterns and finalizing the products (Creswell, W. John & Creswell, 2018).

The Purwani Group created various purun crafts such as bags, sandals, wallets, tissue holders, and others from the training process. The training, which spanned seven days, took place in Tanjung Atap Village, Tanjung Batu Subdistrict, Ogan Ilir Regency. To enhance the knowledge and skills of the Purwani Group, in 2019, PEP Prabumulih conducted a benchmarking activity with the Serasi Group (a PT Pertamina EP Asset 1 Pangkalan Susu Field affiliate) located in Lubuk Kertang Village, Brandan Subdistrict, Langkat Regency, North Sumatra. The benchmarking activity, conducted for approximately five days, focused on two main aspects: first, training on crafting products that had not been produced previously by the Purwani Group, and second, improving product quality control to ensure that the purun craft products of the Purwani Group met sales standards. As a result of these activities, four Purwani Group members produce various craft products, including hats, leather bags, sandals, and ID card holders.

In 2019, PEP Prabumulih Field collaborated with Pak Burlian Topo to provide training on the processing of meat, fish bones, and fish skin to the Fish-based Culinary Creations Group (KOI) of Burai. At the beginning of the training, the fundamental knowledge regarding the benefits and advantages of processing meat, fish bones, and fish skin was conveyed, highlighting their economic, health, and environmental aspects. From a health perspective, fish skin and bones contain significant nutritional content such as protein, calcium, and minerals. Economically, utilizing fish meat, skin, and bones enabled the group to recover or double their initial investment, as all of the fish could be utilized. Environmentally, this approach turned the activity into a zero-waste endeavor. After imparting the knowledge about the benefits and advantages, the initial process of meat, fish bone, and skin processing was explained, from selecting the raw materials to practical processing methods. Given that the Burai Village community is already engaged in producing fish-based crackers, kerupuk, and other fish-based creations, the training process did not require an extensive period and was successfully conducted within two days.

Another training initiative focused on developing songket motifs as a distinctive textile of South Sumatra. In 2019, PEP Prabumulih provided training on developing songket motifs to the Songket Burai Group. The training aimed to create a unique songket motif that would represent the identity of Burai Village. Collaborating with one of the seasoned songket craftsmen in Burai Village, Ibu Rumia, PEP Prabumulih Field conducted the training. The resulting motif depicted the belida fish, a rare and characteristic fish of South Sumatra.

Furthermore, another capacity-building effort involved the Training in Village Tourism Management. In 2019 and 2021, PEP Prabumulih provided training on village tourism management to Pokdarwis Burai Indah. In this training, PEP Prabumulih collaborated with the Sumatera Selatan Tourism Network to impart knowledge and skills in managing village tourism. The training was attended by core administrators and division heads, who exhibited great enthusiasm during the program.

The subsequent training revolved around the creation of Group Product Packaging. At the beginning of 2020, PEP Prabumulih provided training on producing packaging for group products, covering aspects from designing packaging labels to actual packaging. This training aimed to equip the community and partner groups with the knowledge of proper and marketable product packaging for consumers.

Besides enhancing the capacity of the community groups, Pertamina PEP also extended support by providing equipment in April and August 2019. The equipment included three sewing machines and ten materials for crafting purun products, such as 60 sheets of EVA rubber, 100 zipper packs, 35 meters of synthetic leather, two sewing thread packs, five scissors, 15 basic materials, 20 needle packs, three pledge, 20 rice papers, two cutters, and more. The equipment given in April and May 2019, supplied by PT Pertamina EP Asset 2 Prabumulih Field, aimed to support the activities of processing fish meat, bones, and skin, including 1 Fish Grinding Machine, 2 Spinners, 1 Fish Crackers Molding Machine, 3 Kelempang Cutting Tools, two steamers, and 11 kg of packaging for chips and kelempang.

From the benchmarking activities and the training on crafting products from purun (commonly found in peatlands), the Purwani Group produced three innovative purun craft products: round purun bags, book covers, and songket purun wallets. The design innovation for the round purun bags was inspired by the current trend among millennials. As for the songket purun wallets, the idea arose from utilizing unused songket fabric to embellish the purun wallets.

Regarding fish product diversification and innovation, the Fish Processing Group (KOI) Burai developed three market-ready products made from fish: fish bone crackers, fish bone chips, and fish skin chips. These products have become essential souvenirs for visitors to Burai Village. However, the mass production of fish skin and chips has not yet been implemented due to the high demand for fish bones to make bone crackers.

Moreover, from the songket motif development training, the Songket Burai Group (SORAI) crafted a distinctive motif known as the belida fish motif songket. This motif has become the iconic representation of Burai Village and serves as a sought-after souvenir for tourists interested in purchasing traditional Burai Village songket.

Moving on to the Mbak Dewi Shuji program, several stages need to be navigated. The program commenced in 2020 and is expected to achieve self-sufficiency by 2024, following four years of guidance. The strategic plan spans five years and encompasses a one-year work plan involving and considering the interests and needs of relevant stakeholders.

To enhance the skills of Shuji Village's tourism managers, training is necessary for Pokdarwis Danau Shuji members who may lack the proficiency in managing tourism operations. Additionally, the range of offered tourism activities is limited, and there is a lack of distinctive local products. Hence, Pokdarwis Danau Shuji receives training to boost their skills and capacities. The training includes tourism management, souvenir crafting, tour package development, and the creation of local products like the kelempang crackers, all provided through collaboration with the Tourism Department and other relevant departments. The results of these training sessions include the availability of entrance tickets and parking tickets for tourists, as well as the development of water-based, historical, and cultural tour packages. Furthermore, two souvenir products, clothing and keychains, and one kelempang cracker product specific to Lembak are now offered.

The program also showcases innovation in the Pesat Program (Integrated Waste Management). The SARAH Program (Waste into Blessings) serves as a pilot project for an integrated program in Prabumulih City, combining efforts to preserve the environment, achieve food security, and implement health protocol media in daily life. The SARAH Program is a series of integrated waste management activities conducted by PEP Prabumulih Field in collaboration with INAgri (Indonesian Agroecotechnology Institute) and PDU (Recycling Center) of Prabumulih City. This program manages waste from its source to its disposal, encompassing collection, processing, marketing, and development. Organic waste is converted into compost with the assistance of INAgri and the community in Majasari Village, while inorganic waste is recycled and sold with the help of PDU of Prabumulih City and the community in Sungai Medang Village. Furthermore, the SARAH Garden/urban farming, cultivating various vegetable and medicinal plants, is managed by the SARAH Group in Muntang Tapus Village. Program development continues through expanding activities, including educating people about kokedama planting inspired by Japan's urban farming method for homes with limited outdoor space.

Additionally, there is the SARAH WoW (Waste into Blessings Workshop On Weekend) Program and Sunday Market. More than 25 individuals have actively participated and benefitted from the SARAH Program. The ongoing COVID-19 pandemic has spurred innovation within the SARAH Group to develop broader activities and products while adhering to new normal life health protocols as an adaptive, preventive, and consistent approach the community applies in their daily lives. First, the group introduced the concept of delivering vegetables and fruits directly to people's homes, an extension of the Sunday Market activity that previously took place conventionally but has now innovatively shifted to an online platform. The aim is to enable the public to consume fresh produce without causing crowds at the SARAH Garden.

Second, a COVID-19 response competition is being organized in Majasari Village. Third, the group is exploring innovative ways to produce soap from used cooking oil in Majasari Village. These activities are expected to synergize and contribute to the preventive efforts in combating the spread of COVID-19, particularly in Prabumulih City. The SARAH Program emerged from concerns about waste, especially in Prabumulih City. Starting small, the program was initiated with great aspirations. It involved 100 Residential Company Complexes (RDP) in Muntang Tapus Village. Through numerous socialization efforts, households have started independently separating organic and inorganic waste. Consequently, during bi-weekly waste collection, the group can conveniently deliver organic waste to the composting facility (PPS) and inorganic waste to the recycling center (PDU). Rewards in the form of fresh vegetables from the SARAH Garden are given to RDPs that effectively segregate their waste. The organic waste is directly processed into compost for fertilization.

The group named this compost "Sarah Tricho Compost." Sarah Tricho Compost is used in the SARAH Garden for cultivating various organic vegetables, fruits, and medicinal plants. The compost produced in the SARAH Program has distinctive characteristics compared to regular compost. It is made by mixing *Trichoderma* fungi, which actively suppress harmful fungi or pests, especially on rubber trees. This compost is designed explicitly for rubber trees, a popular commodity in Prabumulih.

Approximately 1,600 kg of waste is received every month, and after deducting the organic waste residue, which accounts for around 25%, the total remaining organic waste amounts to 1,200 kg per month. Subsequently, the weight reduces by 75-80% during the composting process. Based on these calculations, the group can produce an

average of 300 kg of compost each month. Using this compost, the SARAH Program has saved approximately 1,000 m² of land in the SARAH Garden and 3 Ha of rubber plantations from exposure to hazardous chemical fertilizers. In the Muntang Tapus Village, the SARAH Program has planted various organic vegetables and fruits, such as lettuce, cabbage, Chinese cabbage, spring onions, pandan leaves, lychees, ginger, and others. In addition to planting in soil, the group implements a hydroponic planting system, maximizing crop yields with the available land. As for marketing, the group has successfully implemented an innovative approach known as the "Sunday Market." During the Sunday Market event, buyers visit the SARAH Garden to personally select the vegetables they wish to purchase, similar to agro-tourism. This approach has proven effective in attracting attention to the program, as such opportunities are rare in other areas. Apart from shopping, this innovation also serves as a form of tourism and education for the community, providing insights into urban farming practices they can apply in their homes.

The SARAH Program focuses on economic aspects and places great importance on future generations. The program initiates the SARAH WoW (Sampah Jadi Berkah Workshop on Weekend) activities, targeting women and children. Once a month, the group invites participants to the SARAH Garden to learn about urban farming. However, regardless of the schedule, the group is always ready to provide education and training to anyone interested. For instance, the TNI unit from Yonkav 5/DPC Kabupaten Muara Enim learned about urban farming, particularly the creation of kokedama, in the SARAH Garden.

In the Majasari area, many tofu factories produce a significant amount of waste. The SARAH Program saw potential in reutilizing this waste, such as using it as animal feed or for making tempe gembus. With the SARAH Program's efforts, tofu dregs are now processed into various snack products, including Ampas Tahu Majasari Crackers (OKTARI), soy flour, brownies, and nata de Soya drinks. In addition to tofu dregs, the program has also initiated the production of a popular probiotic drink, in high demand during the COVID-19 pandemic due to its immune-boosting properties. This probiotic drink is made from pineapple peels.

The SARAH Program has provided a space for families and children to gather and play in the SARAH Garden, creating a sense of community and regenerating bonds among the community members. By focusing on andemic activities, the SARAH Program goes beyond mere economic objectives, demonstrating its commitment to the well-being of future generations. Through the SARAH WoW initiative, the program offers monthly training sessions, inviting participants to the SARAH Garden to learn about urban farming. However, the group remains willing and prepared to provide education and training to anyone interested at any time. For example, even the TNI unit from Yonkav 5/DPC Kabupaten Muara Enim visited the garden to learn about urban farming and the creation of kokedama.

A considerable amount of waste is produced in the Majasari area, which houses several tofu factories. The SARAH Program recognized the potential in recycling this waste, and thus, tofu dregs are processed into various snack products, including Ampas Tahu Majasari Crackers (OKTARI), soy flour, brownies, and nata de Soya drinks. Additionally, the program has initiated the production of a popular probiotic drink that experienced high demand during the COVID-19 pandemic, which is believed to enhance immunity. This probiotic drink is made from pineapple peels.

Di Kelurahan Majasari, the SARAH Program has successfully created herbal soaps using waste cooking oil (minyak jelantah). Previously, waste cooking oil was poorly managed, and most residents disposed of it directly into water channels. However, through the "sedekah minyak jelantah" (donating used cooking oil) scheme, waste cooking oil is not discarded in vain but processed into beneficial herbal soaps for the community's sanitation needs. The soap's extraction process includes various natural ingredients such as kaffir lime leaves, lemongrass, coffee grounds, pandan leaves, betel leaves, and orange peels, which add pleasant aromas to the soap. The Kelompok SARAH has successfully sold these herbal soap products in different packaging sizes, catering to various orders. Most of the orders are for wedding souvenirs. To create appealing souvenirs, the group innovates and crafts the soaps in attractive shapes, including fruit-shaped designs.

Additionally, the Pak Dalang Program has significantly reduced 1.35% or 466.06 tons of inorganic waste, transforming 16 types into economically valuable products. For instance, waste raffia ropes and glass bottles are among the items that have been creatively repurposed. Notably, the program has also increased the income of scavengers by up to 200%, making it the only program in Sumatra to receive regional incentive funding.

These initiatives demonstrate the positive impact and success of the SARAH and Pak Dalang Programs in promoting waste management, environmental sustainability, and community economic empowerment in the Majasari area. By transforming waste materials into valuable products, both programs have contributed to environmental preservation and improved the livelihoods of the local community members.

3. Results and Discussions

The journey of the "Bu Dewi" program (Burai Village Tourism) has demonstrated its sustainability through various indicators. Regarding the environment, approximately 270 kg/month of domestic waste from fish bones and skins has been processed. This figure shows emissions from fish bone and skin waste amount to 1.8 tons CO₂eq/year. The program has also reduced the potential for 44.2% of land fires and has maintained the ecosystem within the Kelekar River.

The total beneficiaries of this program are 116 people, comprising 33 members of the Tourism Awareness Group (Pokdarwis), 17 members of the Fish Processing Group (KOI), 16 members of the Colorful Purun Group (Purwani), and 50 members of the Burai Songket Group. The "Bu Dewi" program has successfully provided employment and improved the livelihood of 83 people, or 4.2%. The satisfaction index of the program's beneficiaries is rated A, indicating a good category. Moreover, the Social Return on Investment (SROI) stands at 1.72, greater than 1, signifying a positive social impact.

From an economic perspective, approximately 600 visitors visit Burai Village each month. The average weekly revenue from vehicle parking services amounts to Rp. 650,000. The groups' gross income (bruto) from processed fish-based products reaches Rp. 12.3 million per month, while income from handicraft sales amounts to Rp. 3.3 million per month. Additionally, the income from Songket craft production ranges from Rp. 24-30 million per month, and other revenues amount to Rp. 3 million per month.

The Social Return on Investment (SROI) quantifies the social impact derived from implementing a social-based program. This approach calculates social programs or CSR as social investments, enabling the estimation of the social impact experienced by program beneficiaries within a specific timeframe. In simple terms, SROI compares the Value of Program Benefits to the Value of Program Investment, resulting in the SROI ratio. The CSR fund disbursed by PT Pertamina EP Asset 2 Prabumulih Field from 2018 to 2022 amounted to Rp. 1,037,856,130.

The "Mbak Dewi Shuji" program has seen significant progress on the economic front. Shuji Lake tourism has attracted approximately 1,200 visitors, generating revenues from vehicle parking services, water tourism, and cottage rentals amounting to Rp. 40 million. Additionally, souvenir and culinary sales (such as Lembak's kerupuk kelempang and pindang) contribute around Rp. 8 million per month.

The "Mbak Dewi Shuji" program has improved the livelihood of 60 unemployed individuals in Lembak Village, with four members of the tourism awareness group earning the minimum regional wage of Muara Enim Regency. The satisfaction index of the local community is rated A, indicating a good category. Socially, the program has fostered a sense of community among the Danau Shuji tourism awareness group, facilitating the exchange of knowledge and experiences related to the development of Shuji Village as a tourism destination.

Furthermore, the recognition and endorsement of Danau Shuji as a tourist destination by the Department of Tourism and Creative Economy of Muara Enim Regency were due to its unique attractions, including historical sites such as the Puyang grave and the Japanese army's communal kitchen, along with the cultural attraction of the tari tigel dance. The development of Danau Shuji as a village tourism destination eventually garnered attention from the public and the jury of the Anugerah Pesona Indonesia (API) and Anugerah Pesona Desa Wisata Sumatera Selatan (ADWS) awards. As a result, in 2021, Danau Shuji Village received the 3rd place award in the API category for new destinations and the 1st place award in the ADWS category for its toilet facilities.

Moving forward, the village government must take a more active role in establishing a Village-Owned Enterprises (BUMDes) that oversees the management of village tourism. This will provide legal support and enable more widespread benefits to be experienced by all residents (Admaja & Anggraini, 2020). With a BUMDes in place, the village can become more self-reliant and innovative, especially as the TJSL program reaches its final stages.

Under the Pesat program, SARAH and PAK DALANG successfully reduced organic waste by 14.81 tons and inorganic waste by 466.06 tons. This resulted in a reduction of emissions by 24.87 tons of CO₂ eq. and contributed to the restoration of river function. From a socio-economic perspective, the program successfully transformed community behavior. People who were once unaware of non-hazardous waste processing systems now understand them. Moreover, the number of households and institutions donating waste increased by 185 and 15, respectively. The program educated 354 community members, and the income of SARAH and PAK DALANG groups increased due to the creation of value-added waste products.

The economic benefits of the program are evident, with SARAH generating Rp. 20.1 million per month and PAK DALANG generating Rp. 34 million per month. Nine products, such as trichocompost, SARAH compost, cocopeat, nastari, herbal used cooking oil soap, oktari crackers, and soybean flour, are produced as a result. The community has also been educated on the convenience of vegetable delivery services ordered through a mobile

application. Overall, the Pesat program (SARAH and PAK DALANG) has established a new economic chain for the groups involved, benefiting 79 members of SARAH and PAK DALANG, as well as leading to the replication of the model by groups such as Wanita Tani Mekarsari Kalipucak Majasari (MKM) and Cempaka.

The SARAH and PAK DALANG groups have learned to use and develop their assets and resources effectively through various training programs. PAK DALANG members can now utilize equipment such as tanks and washing machines, dryers, and presses to create marketable products. Similarly, SARAH offers a centralized composting facility, an educational garden, seedling houses, waste shelters, agricultural equipment, plant seedlings, and harvested produce for practical utilization.

The results of the SROI (Social Return on Investment) calculations for PAK DALANG show a value of 4.98, derived from the NPV of benefits of Rp. 1,135,859,045 and NPV of investment of Rp. 228,300,000. Meanwhile, the SROI calculation for SARAH is 2.86, with an NPV of Investment of Rp. 1,656,617,930 and NPV of benefits of Rp. 4,739,668,982. With such favorable SROI values, these programs are deemed highly feasible and worth continuing, as they offer various advantages to the program beneficiaries.

Indeed, the program's inception was designed with future self-sustainability in mind. Through self-reliance, it is hoped that the community can become increasingly creative and innovative in processing organic and inorganic waste. While the challenges may be significant, the previous support and training, coupled with the innovative nature of the farming groups, will inevitably lead to self-sufficiency. As a result, the SARAH and PAK DALANG programs will continue to benefit the community extensively and become sustainable initiatives with far-reaching benefits for society as a whole.

4. Conclusion

In conclusion, this research showcases effective community empowerment endeavors centered on sustainable tourism development and waste management in Prabumulih, Indonesia. The Desa Wisata Burai Program and the SARAH Program have demonstrated their potential to enhance the local community's livelihood and environmental quality. By providing recreational amenities and supporting local artisans, the Desa Wisata Burai Program not only enriched the tourist experience but also contributed to economic growth. Simultaneously, the SARAH Program's emphasis on integrated waste management led to innovative upcycled products and compost production, addressing waste issues while generating income.

The success of these programs highlights the value of community-driven approaches in sustainable development. The positive outcomes in terms of increased income, environmental conservation, and community cohesion underscore the transformative power of involving local stakeholders. Furthermore, the collaborative efforts between various stakeholders, including Pertamina EP (PEP) Prabumulih, local artisans, and institutions, have proven crucial in achieving long-term sustainable development objectives. These initiatives offer valuable models for replication in similar contexts, emphasizing the pivotal role of targeted interventions in fostering community empowerment, environmental preservation, and socio-economic advancement.

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