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EMPOWERING WOMEN AND FOSTERING GREEN
ENTREPRENEURSHIP THROUGH HERBAL PRODUCT
DEVELOPMENT IN CATUR KINTAMANI

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ABSTRACT:

This paper explores the emerging herbal tourism in Catur village, Kintamani Bali. It chronicles the development of women empowerment program through the cultivation of herbal medicinal plants in a demonstration plot by Universitas Dhyana Pura and in the family medicinal gardens program (TOGA) of the women farmers' association (KWT) members, followed by the production, packaging, and marketing of herbal products in the form of healing oil, face oil, hair oil, massage oil, scrubs, and herbal beverages. The article follows the four-year empowerment project, beginning in 2016, which since the initiation of Catur as a tourism village (desa wisata) in 2018 has become one of the unique selling propositions of this rural tourism destination. Since 2018, the project has expanded to cover the village-wide Women for Family Prosperity Assembly (PKK), fostering green entrepreneurship movement among the women within the Catur village community—both related and unrelated to the herbal project. Using the logical framework in analyzing the steps in the women empowerment efforts through herbal plants and products, eventually supporting herbal tourism, this paper discusses the gap between the problems faced by the women in the community and the long-term desired state, then describes the activities taken followed by the outputs produced and the outcomes achieved from the project, and notes some apparent impacts that have occurred in the community since the inception of the project.

Keywords: *community development, empowerment, green entrepreneurship, herbal products, women*

Introduction

Introductory Catur Village is located in north-central Bali, some 50 kilometres from the city of Denpasar. Catur is a part Kintamani district, Bangli regency, which is the smallest and least

economically developed regency in the province. It is located 1,000-1,200 meters above sea level, with around 2,000 villagers living there. The primary source of income of the villagers are agriculture, with coffee farming and orange plantation accounting for the majority of economic activities. Catur is part of the Kitamani region's coffee producing villages, known for its Arabica coffee recognised and protected under the special protection of geographic indicator (MPIG) (Kutschenreuter et al., 2020; Susanto et al., 2019; Suyasa et al., 2018). The area is also suitable for vegetable, fruit, and flower plantations. Additionally, some villagers also raise cattle and livestock.

Catur's 746-hectare terrain is mountainous, which makes it difficult to access a steady supply of water for rice farming. Instead, the majority of the 529 households in Catur engage in dry-farming, mixed between high value crops like coffee and oranges (320 Ha) and low- value crops/ animal farming (350 Ha) (BPS Kabupaten Bangli, 2018). The village average elevation is 1,250 m above sea level and the average temperature is 20°C year-round. With its rich soil and mild climate, Catur is also suitable for planting a various array of herbal plants. The women in the village have been planting some herbal plants for personal use, but many were largely unaware of the specific benefits of the plants they have in their yards, or even whether and which plants have health benefits.

Demographically, 64% of Catur's population is of productive age, with a dependency ratio is 56%, which is higher than average (BPS Kabupaten Bangli, 2018). Culturally, Catur is unequivocally and predominantly Hindu, but with an interesting mix of Chinese Buddhism and Confucianism, which makes it unique compared to most villages in Bali (Susanto et al., 2018). Therefore, historically Catur villagers have long been open to living harmoniously and in tolerance. Catur is made up of three neighbourhoods ("*banjar*") and its land is divided into eight farmers group ("*Subak*"). One of the *banjars* is Lampu, which hosts the Chinese-Balinese households on one side of its street and Hindu-Balinese ones on the other side (Wulandari et al., 2018).

Universitas Dhyana Pura (Undhira) has been involved in Catur village since 2016. Initially, the Dhyana Pura Foundation, which oversees the University, purchased a plot of land in the village. In strategic development and planning meetings in 2016, it was recommended that the plot of land could be used to cultivate herbal medicinal plants, which in turn can be further developed for the benefit of the surrounding community. Since 2017, Undhira has been working along with the village leaders and especially the women's group in Catur—namely the Women Farmers' Group (KWT) and Family Welfare Group (PKK)—on an empowerment program to cultivate herbal plants, to develop herbal products from the plants, and market the products as a part of tourism development in Catur village, with herbal tourism as one of its pillars (Waruwu et al., 2020). The cultivation and production of herbal medicinal products in Catur is also aimed to provide health benefits for Catur and its surrounding region.

Undhira has been carrying out a multi-year project on empowering Catur villagers through the cultivation and processing of herbal plants with medicinal properties and uses. This project received support and funding from the Evangelical Mission in Solidarity (EMS) Germany. Through this project, at least 100 households have been reached, given knowledge on the kinds and benefits of medicinal plants, given seedlings to cultivate in their own households, and trained to process and market medicinal products made from the native (existing) and the newly-introduced but climatically-adjusted herbal plants, both through the family medicinal gardens (TOGA) of the women farmers' association (KWT) and the Women for Family Prosperity Assembly (PKK) (Waruwu et al., 2020). This is a new pattern of community development project for Undhira, i.e., to conduct a multi-year service in one area

as opposed to conducting several small-scale and shorter-termed projects with several different target groups.

In its development the women empowerment program in Catur village have developed into many forms of community engagement in the region, whether by Undhira or other universities and CSRs. This paper chronicles the development of women empowerment program through the cultivation of herbal medicinal plants, and how the project has stimulated further developments in the village—particularly encouraging the village to submit a proposal to become a “tourism village” (*desa wisata*), developing green entrepreneurship, and eventually realizing a community-based tourism with herbal as one of its pillars.

Literature Review

The community development project in Catur village, which was initiated in 2016 and carried out since 2017 until the time of writing, will be presented and analyzed using the Logical Framework Approach. The Logical Framework Approach (LFA) refers to a process of analyzing project planning and management using multiple tools, for which a Logical Framework Matrix is derived as the final product of the analysis (Gegić Miilorad M., 2018). The matrix serves as a visual representation of the project’s goal, activities and anticipated results, while also providing a structure to specify the project components and activities—as well as how the activities relate to one other and eventually help to reach the desired outcomes (Collins, 2015; Gegić Miilorad M., 2018; MacArthur, 1993). The formulation of the strategies, the logical framing, and the anticipated results to be monitored are also present in the LFA. For the purpose of this article, a ‘LogFrame’ Matrix has been adopted in order to analyze the project more systematically and to aid in the chronicling of the four-year process of community development in Catur Village (Figure 1).

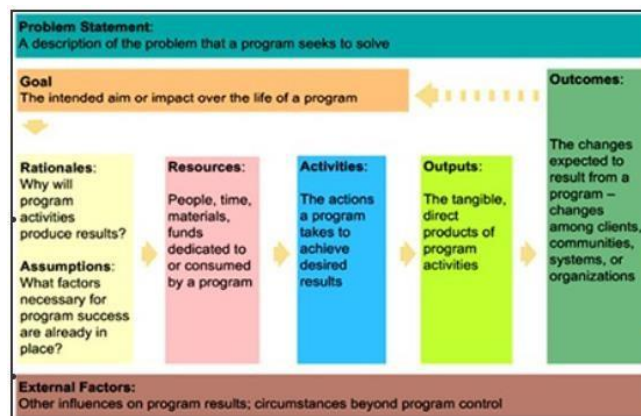


Figure 1. Logical Framework Approach (adopted from Collins, 2015)

In terms of women empowerment and economic development, previous studies and project reports have widely reported that the two go hand-in-hand, especially in the rural settings of various South and Southeast Asian countries including India, Pakistan, Bangladesh, and Indonesia (Duflo, 2012; Eddyono, 2018; Hassan & Naz, 2020; Sathiabama, 2010; Sharma & Varma, 2016; Varghese, 2011). Duflo (2012) notes that development could strengthen gender equality in patriarchal societies, and empowering women in these communities may benefit development. In India, self-help groups have been attributed to both empowerment among women and economic development in the micro levels (Sathiabama, 2010; Sharma & Varma, 2016). A study in Bangladesh even reported that women empowerment efforts could

potentially become a reducing factor in partner violence against women (Rahman et al., 2011).

One of the ways to improve women’s economic status is through green entrepreneurship programs, which refers to entrepreneurial efforts and ventures that are sensitive to sensitive to environmental deterioration and planet overexploitation (Tien, 2020). Thus, the of green entrepreneurship is to promote sustainable development of the environment while also ensuring that the economic and social development of the local communities are also done in a sustainable way. A study in Oman suggested that women are inept in household and economic decision making (Varghese, 2011). This is also empirically true in the case of rural women in Catur Kintamani. Based on this capital, the women involved in the empowerment program discussed in this study seem to have the capacity to be empowered, for fostering rural economic development, and for initiating a green entrepreneurship program.

Research Method

This paper is descriptive in nature, chronicling the development of women empowerment program through the cultivation of herbal medicinal plants in Catur village, and its snowball effect on green entrepreneurship and community-based tourism development in the region. The paper is presented using the logical framework approach, in a descriptive qualitative manner, from the perspective of the project managers and implementers. It is a part of a larger analysis that aims to examine the development and impact of this empowerment program through the perspectives of the different stakeholders.

Results and Discussion

Based on the Logical Framework Approach, the authors have developed a matrix as a visual representation of the women empowerment program in Catur Village—as seen in Figure 2. Following this matrix, the detailed development of the project is chronicled.

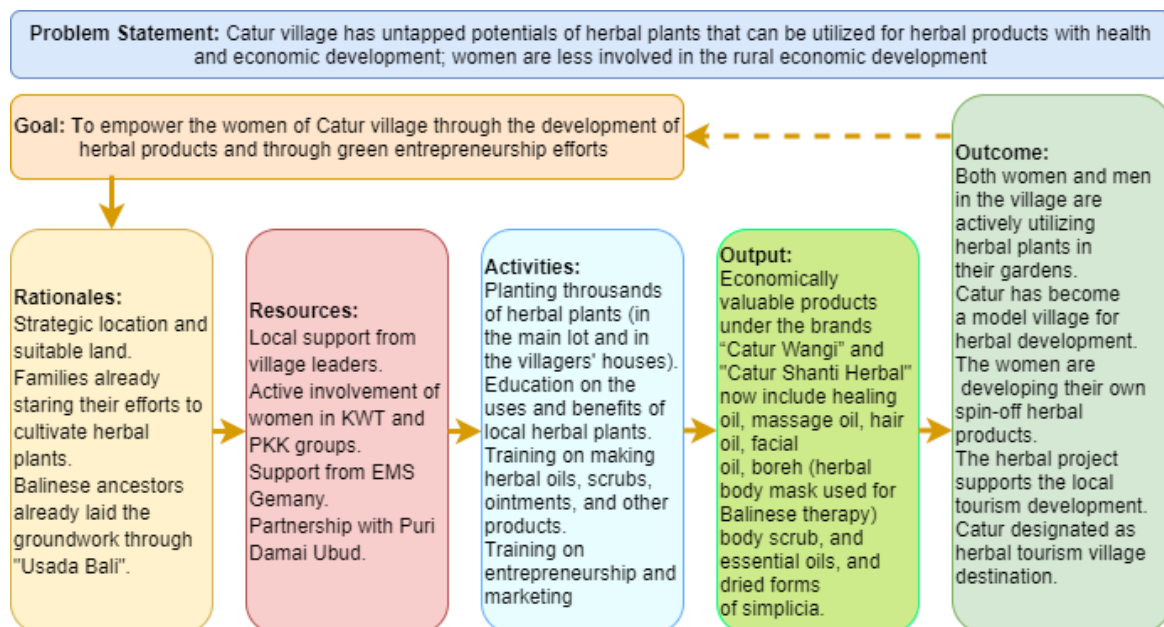


Figure 2. Logical Framework Matrix of the Women Empowerment Project in Catur Village

Rationales

Through the initial situation analysis, the team found that one of Catur's advantage is its strategic location in the tri-regency area of Badung, Bangli, and Buleleng, and has the multiplier effect potential that if a certain development would take place and becomes successful thus the possibility of it reaching the surrounding areas is increased. This is why Undhira envisaged the importance that the community development in Catur can have for the surrounding region.

Though some families have begun their own family medicinal gardens (TOGA), the knowledge on the uses and benefits of natural plant sources as medicinal remedies was still lacking, even though the area already has a rich array of plants to be used for medicinal purposes. The local community members are still largely unaware of have long forgotten the uses, processes, and benefits of these medicinal plants. Therefore, a concerted effort is necessary in providing scientifically sound and beneficial information regarding medicinal plants and their health/remedial benefits. This can help the community in maintaining their health conditions naturally, as well as increasing their income by creating hygienic and ready- to-use products from medicinal plants, specifically rhizomes. Balinese ancestors have actually laid the groundwork for utilizing medicinal plants for health benefits and as remedies for various ailments, known as "Usada Bali", which is largely forgotten. This situation is something that the Undhira team sought to change through a community empowerment program.

There has been a change in the paradigm of using traditional and herbal remedies in the community. Simultaneous to the implementation of this project, there has been a welcome change in the paradigm of Balinese society towards herbal and medicinal plants. In the past two years, Balinese people are increasingly becoming aware of the benefits of these plants and are once again beginning to grow plants with herbal and medicinal benefits, as well as increasingly use herbal remedies to supplement chemical medications. This opened up the way for Undhira team, and helped determine the focus as this is something that has health benefits as well as economic value.

Statement of Problem and Goal

Based on the rationales stated above, the Undhira team formulated a problem statement and an overarching goal for this community development project. The main problem to address is Catur village has untapped potentials of herbal plants that can be utilized for herbal products with health and economic development; women are less involved in the rural economic development. Subsequently, it is determined that the objective of this project would be to empower the women of Catur village through the development of herbal products and through green entrepreneurship efforts.

Resources

The village leadership has been very supportive from the beginning of the project. In the 2017-2018 cycle, the project was directed to partner with the well-established Women Farmers Group (KWT) as the project was in its pilot phase. Then in the second cycle of 2019-2020, the project partnered with the village-wide Women for Family Prosperity Assembly (PKK) to scale up the scope and impacts of the project in Catur village. The benefit of cooperating with an existing group is that the women and households involved in this group already have a strong social bond. Both the KWT and PKK already have regularly scheduled meetings that make it convenient for the members to gather and be given training sessions from Undhira; and they have already had some experience in cultivating herbal plants (TOGA) in their yards. There are 41 registered members of the KWT, with multiplier effect in the immediate households alone surpassing 100 people. Meanwhile, the PKK covers the entire village, but the PKK leadership decided that it would be more effective to train the main PIC's ("*kader inti*") and then they would in turn train the others in their respective community groups (*banjar*). As such, the multiplier effect is carried out.

The Undhira team also collaborated with Puri Damai Agrotourism in Ubud for the initial cultivation and product development of herbal plants in 2017-2018. Puri Damai is a 15,000 m² agrotourism destination that is also a living laboratory of herbal plants, which applies the concept of “returning Bali to its nature” and “rebuilding community trust in traditional medicines”. Puri Damai has 382 different types of herbal plants grown in their land, and has been helping various groups throughout Bali and Indonesia to develop women-empowered green entrepreneurship.

In 2019-2020, the networking of this project has widened, to include not only Puri Damai Ubud as consultant, but also other organisations. Firstly, the team cooperated with Bali Women Crisis Centre to provide education about gender equality and empowerment. Secondly, the team connects with the Indonesian Ministry of Research and Technology, in particular the Directorate for Intellectual Property, which visited the Catur herbal programme in June 2019. Thirdly, the women in the herbal project also welcomed guests from Asian Friendship Society (a non-profit networking organisation based in Japan with members from over 10 nations across Asia) in October 2019. Additionally, the project also develops networking with MBM to provide the organic fertiliser for the project in Catur, and with UnitingWorld Southeast Asia Regional Office.

Ultimately, Undhira’s partnership with the Evangelical Mission in Solidarity (EMS) in Germany has been one of the most valuable resources in the development and implementation of this project. EMS supports this project as the project itself touches several of its core missions including economic development, social justice, and integrity of creating (environmental stewardship).

Activities

The activities in this project can be divided into two 2-year terms: 2017-2018 and 2018- 2019. In the first term/cycle, the activities revolved around planting the initial herbal plants and inculcating awareness among the villagers on the benefits and practical uses of herbal medicinal plants based on traditional traditions of Usada Bali, coupled with scientific approach and understanding.

In terms of planting the seedlings, initially there was an unusually long period of heavy rains in 2017, which affects the growing cycle of the herbal plants and rhizomes. The first round of planting experienced an unexpectedly long period of dormancy, which rendered it unable to be used in time at the end of the year for production. Another change that has to do with lessons learned is making sure to take into account the ecological conditions (temperature, soil condition, humidity, and sunlight intensity). Steps were taken to mitigate this project, for instance by procuring grown plants for practice of production and giving the participants seedlings at the end of 2017 to be harvested and processed in 2018. There is a bit of a delay, compared to the initial time table, but ultimately the goals were met with some alterations in the timeline, which was continued going into 2018.

Nonetheless, the program commenced in 2017, with the demonstration plot built in the plot of land owned by Dhyana Pura Foundation in Catur village. The Foundation had purchased two plots of land with the area of 6,000 m² and 2,500 m² respectively. The demonstration plot was started in 2017 in the larger plot of land, using half of the land plot. In May 2017, several types of herbal plants had been planted in this plot, comprising of citrus hystrix, lemongrass, citronella grass, and other rhizomes. Planting of herbal plants for the target group was done in the households of the farmers in the Subak Kinjung water irrigation group in 2017-2018, as agreed upon by the target group and village authorities in one of the discussion sessions with Undhira team. This decision was made considering that the households in the target group each has adequate land plots to cultivate herbal plants, as well as to continue or revive the family medicinal plants (TOGA) program that was once a government-backed program but did not have good follow-up at the time.

Planting of herbal plants in the target group's households, which was initially planned for May 2017, had to be delayed until November 2017. This is done to allow assessment of the planting cycle of the plants in Dhyana Pura's demonstration plot, in which many of the plants in the demonstration plot went into dormancy during the dry season. As such, the demonstration plot had not been able to develop as optimal as hoped. This will have an effect on the harvest timing, which had to be pushed back to mid-2018.

In 2018, two significant environmental/ecological events occurred, which are the eruption of Mount Agung and the Lombok earthquakes. Gratefully, both of these events only had a minor impact on the implementation of the project. There were several days of volcanic ash rain that covered the plants and leaves in the demonstration plot and in the members' plots, but those did not have significant impact on the quality or the yield of the herbal plants. In addition, in 2018 the team and the target group members learned that some plants did not grow well in Catur (mainly due to elevation), such as aloe vera, but these plants were then replaced with ones that are more suitable to the climate.

In the first cycle of this program (2017-2018), the primary target group consisted of 41 women, while the project is also hoped to reach its secondary target (the women's family) of 100 individuals or more. These individuals, particularly the women as the primary target group, received education and knowledge on how to process herbal plants from cultivation up to processing, which can be beneficial for their health as well as potentially provides a supplemental source of income. Additionally, the target group has been given the knowledge and skills on identifying which plants have health benefits and how to process them into infused oils and scrubs with health benefits. To facilitate the monitoring process, the KWT women's group was divided into ten small groups, each consisting of three to five women/families. Each small group has a coordinator, which was responsible for the 100 seedlings of herbal plants entrusted to each small group. By creating these small groups, it is hoped that they are able to motivate one another and continue to actively participate in the second year's implementation of this project.

In terms of production, there was a strong desire by the village leaders in Catur to develop tourism in their locality and the development of spas that demands many different traditional herbal products, for which the outputs are more economically valuable products including herbal oils, herbal scrubs, and essential oils. The desire to develop herbal healing oil, hair oil, face oil, and spa/wellness related products such as scrubs and essential oils was found to be prominent. To realize this desired impact for the Catur community, the Undhira decided to cooperate with an existing community organization in the village—in this case, the Women Farmers Group (KWT), in the first two-year cycle of the project (2017-2018).

In the second cycle of 2019-2020, the focus has shifted slightly from marketing to a wide audience using online marketplace and website to creating products that are useful for the villagers and as an herbal souvenir ("something to buy") in Catur tourism village—in order to support the village leaders' efforts to initiate and develop local tourism development. In addition, with the new village leadership taking over since 2019, the empowerment program was asked to scale up—thus now covering the village-wide PKK group in addition to the already established KWT group in the initial pilot project of 2017-2018. The women in the KWT have been able to act as agents of change in the larger PKK group, as some PKK members are also KWT members. Here, the multiplier effect that's intended in the program could truly be realized.

In addition to distributing the herbal seedlings to be planted at homes/fields, the new village chief and head of PKK decided that the herbal seedlings from Undhira's herbal fields are also to be planted in public areas, such as in the village office and in the community centres. Lastly, since 2019,

the women group and Undhira team came up with a new tagline for the empowerment programme in Catur: “*Sehat, Setara, Sejahtera melalui Herbal*” (Healthy, Equal, Prosper with Herbal). In addition to practical knowledge about herbal therapy, herbal products, and the usage of herbal plants for daily remedies (for the top 10 ailments as listed in the proposal), the team also invited experts from Bali Women Crisis Centre and UnitingWorld Southeast Asia Regional Office to give a seminar on the topics of women’s health, gender equality, and economic empowerment.

In the second cycle (2019-2020), the program was scaled up to involve the village-wide women’s group organized under Women for Family Welfare Group (PKK) through its women small business and entrepreneurship arm (UP2K). More women than in the first cycle (2017- 2018) were given education and training on the types, uses, benefits, and processing of various herbal plants that can be made into functional products, including 40 from KWT and another 40 from PKK. There has been a significant multiplier effect that started with the women from KWT (the target group from 2017-2018), who could become facilitators/mentors for the new target group for 2019 (PKK members who are not KWT members), particularly several key persons who have become advocates for health and wellness—some of whom now have influential roles in various organisations in the village.

Output

In terms of output of the production, the women already packaged and marketed online and offline under the brand “Catur Wangi” now include healing oil, massage oil, hair oil, facial oil, *boreh* (herbal body mask used for Balinese therapy), body scrub, and essential oils, and dried forms of *simplicia*. In addition, co-brand “Catur Shanti Herbal” was developed in 2020, with several spin-off products initiated by the women themselves. This has spurred the rise of green entrepreneurship among the women in the village. Additionally, the target group was assisted and trained in digital marketing, as the products are now marketed offline and online. Some of the products can be seen in Figure 3.



Figure 3. Catur Wangi & Catur Shanti Herbal Products

Since 2019, Catur has been able to produce seedlings for herbal plants, reducing the need of purchasing from another place. The herbal plantation owned by Undhira is already producing, as well

as the herbal gardens of the target group from 2017-2018 cycle. As many as 2,500 seedlings from 26 plant species were distributed to the new target group in 2019. This is hoped to further strengthen Catur's existence as "herbal village". The women as well as the rest of the villagers in Catur are feeling an enhanced sense of pride as their village has been designated as the "herbal village" of Bangli regency, placing third in the province, as well as winning second place as "tourism village" in all of Bali province.

In 2019-2020, the Undhira team consisting of lectures and students have been able to accompany the women of Catur in developing and marketing their herbal products. In addition, the leaders of the women's groups in Catur have also been successful to develop various spin-offs of herbal products based on what was being taught in 2017-2018 through Undhira-EMS- Puri Damai cooperation. Several green products and green entrepreneurs have arisen in Catur— among which using the brands "Catur Wangi", "Catur Shanti", and others.

Outcome

From the program managers' perspective, this project has been able provide observable impacts on the community, at least partially so. In terms of societal impact, this empowerment project was felt by Catur community members as a whole, through the empowerment of the Women Farmers Group (KWT) and Women for Family Welfare Group (PKK). By becoming a part of this project, many of the women and men in the target group have begun to show their own initiatives to plant their own herbal plants in their land plots, as they now have the awareness of the benefits of such plants and the knowledge on how they can be utilized to enhance health. In the duration of the project, Catur village has become a model for other villages to develop local herbal products. Coincidentally, the chief of Catur village is also the general secretary of the forum for village leaders in Bali. As such, he has had the chance to share about his first experience regarding the community empowerment through herbal plants. Many other villages are now motivated to promote planting and using herbal plants in their communities.

In addition, the scope of education, training, and accompaniment in production had widened compared to the initial proposal. As the range of products widened, so was the educational and training element. The target groups are already well-practiced to make the products from the herbal plants that they planted both in Undhira's demonstration plot and in their own plots. A new and necessary addition was undertaken by Undhira's team involving lecturers and students from the Biology department, which was monitoring of the target group's land plots. The women have also educated their respective families in creating a habit of planting, making, and using herbal products. From various testimonies, this has improved the overall well-being of the families involved. While the wide commercial use and sale of the products are still in the process, at least the herbal products are being widely used in Catur and as herbal souvenirs for visitors of Catur village.

While by the end of 2020, the direct economic impact of the herbal product was still minimal, but at the very least now the target group can already produce and use herbal products that they used to purchase. There were several opportunities throughout the years in which Catur village was able to promote and market the herbal products in local and provincial exhibitions. Catur was seen as unique since it already has herbal products to become a part of herbal tourism. As such, the herbal products are also being sold as souvenirs and unique local products in various visits by dignitaries, regional, national, and international visitors— including a visit by Asian Friendship Society and the Indonesian Ministry of Research and Technology.

In terms of ecological impacts, since the initiation of this project many community members in Catur—both those directly involved as the target group and those who are not— are reported to have

begun planting herbal plants in their gardens. Additionally, older plants are being rejuvenated through the villagers' own initiatives. Since 2018, the team can observe that in conjunction with this herbal project and the push to develop herbal tourism, the target group has begun to better arrange their living spaces and the village environment in general. A more conducive meeting quarter had been arranged, along with a farmer's library. In addition, several of the target group members had begun to build toilets for visitors and to support sanitation and hygiene when producing the herbal products.

One of the initial plan to educate the villagers about composting was scrapped because the community group has already produced organic fertilizer from the by-products of coffee fermentation (microorganism from coffee slime). However, this product had not been used in a wide scale. Undhira's team was the first to try using this product in the demonstration plot, which proved to be successful (Figure 4). From 2020 onwards, Undhira's demonstration plot has been able to produce seedlings on a regular basis, and as such plant distribution no longer needed to be done in cycles. Rather, the community groups could go directly to the main plot and collect any seedlings they may need.



Figure 4. Demonstration Plot (Main Herbal Garden of Undhira in Catur village)

In addition to placing third in the provincial competition for TOGA, the women also participated in the 2020 creative economy development competition. Several women have been developing their own spin-off related to herbal products, including *Centela asiatica* syrup (which has the benefits of ginko biloba for brain functions), herbal drinks to sustain healthy immune system in the midst of Covid-19 pandemic, and local specialty drink termed "Sale Manis", which consisted of lemon grass (*sereh*), sugar (*gula*), lemon, and cinnamon (*kayu manis*). A depiction of the product and the efforts of the local villagers to plant herbal gardens in public areas is illustrated in Figure 5.



Figure 5. Spin-off Products and Local Women's Effort in Herbal Awareness

The Undhira team also partnered with Puri Damai Ubud to procure herbal seedlings as well as in the initial development of herbal products. Ms. Ida Ayu Rusmarini from Puri Damai Ubud has provided immense learning opportunities to the Undhira team, the leaders of the women's groups in Catur, as well as Undhira students. As such, the mentoring from Ms. Rusmarini in 2017-2018 was able to produce the desired multiplier effect. Ms. Rusmarini has noted that the Catur program could run independently, as she prepared to assist other women groups in other regions of Bali developing their own community-based products that aim to empower women in rural areas. Since 2019, she has remained in an advisory role. Through her efforts in assisting local communities, especially women, in developing green entrepreneurship, she was awarded the *Kalpataru* environmental stewardship award by the Indonesian government. Her involvement in the Catur program was one of the highlights in the committee selection process.

Throughout the 2019-2020 cycle, the women in the PKK group are empowered to be more active in their organisation, particularly by reactivating the "Income Increasing Efforts for Families" (UP2K), an arm of PKK tasked with creating and sustaining income-generating business for the village through the production, consumption, and promotion of herbal products. Spin-off products were developed either by the women themselves or in collaboration with the Undhira team. For instance, through the herbal project some of the women leaders in the village have begun to push for healthier meals and snacks for children in the village-run early childhood centre. They use the knowledge and experience they receive in making syrup made from *Centella Asiatica* and other products to enhance the nutrition of the children in the early childhood centre.

The project also had an impact on local tourism development through the initiation of "Desa Wisata Catur" (tourism village). In 2018, Catur received designation as "Tourism Village", partly due to the encouragement from Undhira to develop educational tourism as a way to create greater impact of the herbal development. Seeing the what had been accomplished by KWT and PKK through herbal plants and products, the Catur community established a tourism council and are encouraged to further develop herbal-based tourism. From this empowerment project, many other accompanying projects were approved for funding by various ministries in Indonesia (i.e., the Ministry of Research and Technology and the Ministry of Tourism and Creative Economy) and internal grants from Universitas Dhyana Pura. These projects particularly relate to the various facets and components of tourism development. These grants, though in different context, ultimately work in conjunction with the women empowerment project in Catur.

With the designation as a "Tourism Village", Catur has the legal and political support from the municipal/regency government to operate as a community-based tourism. Based on the discussions

with the local village governance and the newly formed local tourism council, herbal tourism was chosen as one of the pillars of Catur's unique selling point for tourism—in addition to coffee plantation, nature, and culture. The products that have been produced by the target group of this project have become the centre point of this herbal tourism village development, under the brand of “Catur Wangi” (Fragrance of Catur) having been featured in various promotional activities and socialization efforts carried out in 2018. This project has laid the groundwork necessary for Catur to become eco- and edu-tourism destination, in addition to increasing the villagers' knowledge on herbal/medicinal plants and improving their economic situation by producing herbal products. The efforts to initiate herbal tourism have received support from the central and local government as well as the private sector. This increases the potential of becoming income-generating and community-empowering.

Conclusion and Implications

The women empowerment program in Catur village has been able to put forth not only ready-to-use and marketable products for the village, but also has sparked an interest in herbal remedies, herbal tourism, and women-based green entrepreneurship development in the village. Catur is now known as a model for herbal-based local community development in the region. While the direct economic impacts still need to be further researched, the empirical impacts on the education, training, and accompaniment conducted by Universitas Dhyana Pura in the village could already be seen. The women in the PKK group are empowered to be more active in their organisations (both KWT and PKK), as well as developing their own efforts and green entrepreneurship business ideas that relate to herbal products—including healthy herbal drinks for children and others. The project has also laid the groundwork necessary for Catur to become an eco and herbal destination, in addition to increasing the villagers' knowledge on herbal/medicinal plants and improving their economic situation by producing herbal products.

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