

## **The Concept of Farming Schools and Branding Digital Agrotourism for Farmer Communities and Students English Department**

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### **Abstract**

The article gave an assistance to develop Farmer Schools Karangerjo and Students English Department of Universitas Ma'arif Lampung in order to improve skills and provide an understanding of agricultural management, namely the concept of agricultural mechanization. Hence, they can get access to learning about agricultural management for free and sustainably. Improving the skills and creativity of the farming community in building a roadmap for the digital marketing media movement. it would have an impact on the ability of farmer groups to recognize and utilize online digital media. The method used Asset Based Community Development (ABCD). This assistance has a significant impact on the solidarity of the farmer group community. From the various activities that have been carried out, some farmers have been creative in utilizing the vacant land yards around their yards for vegetable farming activities, in addition to the availability of a PVC pipe irrigation system, which was one of the outcomes of the agricultural mechanization concept. They also apply the concept of organic farming by preparing superior seeds that have been sown properly, from preparing the land to planting vegetable seeds. In addition, there was online digital media, namely Instagram, to improve the skills and creativity of the farming community in building a roadmap for the digital marketing media movement.

**Keywords:** Farming School, Branding Digital, Digital Media Marketing

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### **INTRODUCTION**

Increasing the productivity of farmers' skills is currently receiving less attention from various parties. This is because the interest in the participation of youth in the agricultural sector has not been maximized and agricultural management is still conventional and has not received a good modern management system. The concept of a farming school is a manifestation of the concerns of the farming community in facing the crisis of the farmer generation (Bakker et al., 2022; Cai et al., 2022; Davis et al., 2012; Melo da Silva et al., 2023). Farmer school is a place that will educate and foster through joint learning activities to improve the skills and independence of farmers (Larsen & Lilleør, 2014; Najjar et al., 2013), besides that it is also a forum for communication for the younger

generation to get involved in agriculture (Henriksen et al., 2015; Prain et al., 2020; van den Berg et al., 2020). The farming community, especially in Karangrejo Metro Utara, are vegetable farmers. For about 20 years, they have dedicated their income and livelihood to farming (Results of Interview, Noviandi, July 2021).

So that this area is known as a producer or production of vegetable agriculture in Metro City. However, in the last five years, many of the younger generation do not care about agricultural land in continuing agricultural management and it is difficult to motivate the younger generation to be willing to be involved in agriculture, especially vegetables. So that young people rarely pay attention to efforts to introduce agriculture to the younger generation (Results of Interview with Mr. Sarjono, July 2021). The activities in the farming school can provide the widest possible access to information for farmers who have a strong will and do not have the opportunity to study/get higher education. Because most of the farmers in Karangrejo in farming practices do not come from farmers who have received a pure education height.

So that with the capital of tenacity, persistence and togetherness of the community, for 20 years they have been able to maintain consistency as vegetable farmers and become a source of food for vegetable businesses in metro cities (Results of Interview with Noviandi, August 2021). This asset of tenacity, persistence and togetherness of the farming community is what farmers in Karangrejo are still consistently doing. Apart from that, sufficient infrastructure, facilities and amenities such as 30 irrigation channels, streams, mosques, meeting halls, asphalt road access, patrol posts, schools, police stations, posyandu, markets etc. also make it easier for the community to carry out farming activities. The results of observations from the mapping of infrastructure and economic potential that the researchers carried out have great potential for both infrastructure assets, individuals (farmers), or natural assets (Observation results, August 2021, Karangrejo Metro Utara). In addition, the farming communities also carry out activities Evaluation of harvest yields and calculation of yields are carried out routinely by farmers. Apart from that, they also set aside 10% of the harvest for cash (Interview with Mr. Sukanto, August 2021). Other assets are there are 4 farmer groups in this subdistrict, and some farmers work on their respective lands, there are also some farmers who work on individual lands with the status of renting land for one year, and 2 years, "plant"/farming. With the principle of profit-sharing with landowners, and it has become a culture in the community, this system apparently also has a good impact on solidarity in the community (Interview, Pak Budi & Pak Jono, Farmers in Karangrejo, July 2021).

However, there is still much need to develop better agricultural management, such as optimizing the use of organic fertilizers, modern agricultural mechanization systems, and recognizing and utilizing online digital media in branding vegetable agro-tourism, so that the output obtained can be maximized. This situation is the reason and enthusiasm of various parties who care about the world of agriculture to establish a farmer school as a forum for communication and joint learning activities. In addition to the Karangrejo area being a vegetable producing area in Metro City, the farming community is also developing vegetable agro-tourism, as a place of recreation.

Even though the existence of farming communities with agro-tourism is running, there are still many obstacles in terms of agricultural management that focuses on managing organic agriculture that is environmentally friendly, technology-based and digital branding in promoting vegetable agro-tourism. From some of the problems that researchers found, among others, most agricultural management systems are still conventional, namely non-organic farming. The management of vegetable cultivation in Karangrejo Metro Utara agrotourism still does not utilize organic materials as the main source of fertilizer for vegetable plants. This will affect the damage with residue from the use of chemicals that can cause pollution in the environment. In addition, the existence of

agro-tourism has received less attention from various parties, because it has not received a good modern management touch, namely the lack of understanding and utilization of digital media from online media from farmer residents. So that the role of regeneration of young farmers and universities in encouraging agricultural systems is very important to continue to progress and develop and can increase the number of visitors.

So there is a need for a farming school and digital branding. The activities in the farming school can provide the widest possible access to information for farmers who have a strong will and do not have the opportunity to study/get higher education. As well as the absence of sustainable entrepreneurial assistance activities for farming communities. The important things in improving agricultural skills and promoting agro-tourism are first, training and assistance in agricultural management in understanding the mechanization and use of technology in agriculture, training and assistance in managing environmentally friendly organic agriculture. The second is digital media training and assistance by assisting farmers to understand and apply digital media such as Facebook, Instagram, websites, and others in order to promote Karangrejo vegetable agrotourism. With the development of a farming school and digital agro-tourism branding, it is hoped that it can promote and preserve vegetable agro-tourism as an effort to support human resource development, especially young farmers in Karangrejo Metro Utara in improving agricultural skills and digitalization. So that a more structured roadmap for the digital media movement will be built and the sustainability of the farming school in increasing the knowledge and creativity of farmers which will have an impact on the income and turnover of farmers. The purpose of this assistance is to develop Farmer Schools in order to improve skills and provide an understanding of agricultural management, namely the concept of agricultural mechanization. So that farmers can get access to learning about agricultural management for free and sustainably. Improving the skills and creativity of the farming community in building a roadmap for the digital marketing media movement, so that it will have an impact on the ability of farmer groups to recognize and utilize online digital media.

### **Theoretical Review**

The existence of a farming school which was established independently by the community now has an influence on agricultural development through agricultural management education. Some examples of the implementation of farming schools in Indonesia are the Subur Mukti Gapoktan Farmer Field School in Cimaung District, Bandung Regency (Oktiwanti, 2016). Ora Et Labora Farmer's School in the village of Klepu Ponorogo (Wibowo, 2019). Cempaka Village Farming School in the Cigugur Pangandaran sub-district (Irawan et al., 2017). Farmer Field School in Sekawi village, District. Suakaraja, Sukabumi (Hermawati, 2018) and so forth.

This farmer school was established independently by the community with the aim of: a forum for educating and fostering farmers through joint learning activities to improve skills, independence and as a forum for communication for the younger generation to be involved in agriculture (*Looking at the Movement of the Young Farmers School*, 2015). Activities in farming schools can provide the widest possible access to information for farmers who have a strong will and do not have the opportunity to study/get higher education (Subekti et al., 2016). Because most of the farmers in Karangrejo in farming practices do not come from pure farmers who have received higher education. So that with the capital of tenacity, persistence and togetherness of the community, for 20 years they can still maintain their consistency as vegetable farmers and become a source of food for vegetable businesses in metro cities. However, there is still much need to develop better agricultural management, such as optimizing the use of organic fertilizers, modern agricultural mechanization systems, and vegetable agro-tourism branding, so that the output obtained can be maximized. The existence of vegetable agro-tourism, farming

business activities, yield evaluation activities, and mutual cooperation activities that are routinely carried out by the Karangrejo farming community are the main potential and assets in supporting the sustainability of its citizens. And here academics should play an active role in bridging farmers to facilitate increasing the productivity of farmers' skills in the era of industrial technology. So that they can explore other potentials. The potential for vegetable agro-tourism can also function as local tourism to be developed.

Agro-tourism can be interpreted as a combination of agriculture and tourism that prioritizes tourism with the introduction of various types of agricultural cultivation or animal husbandry (Oktaviani, 2018; Ulfah et al., 2017). Cultivation in agro-tourism is an engineering of agricultural objects (Fatima, 2017), with the intention of introducing tourists or visitors to the agricultural or animal husbandry cultivation systems in Indonesia. Agro-tourism has a great opportunity to progress and develop as a function of determining the added value of the agricultural sector through tourism education (Junaedi, 2015; Split, 2017; Setiawan et al., 2017). Because in terms of the features of agro-tourism, it has its own characteristics so that it becomes a tourist object and educational facility for visitors (Fauziyah, 2016; Wahyu Astuti, 2013; Mulyono & Mubarok, 2019) among others are:

- a. Agrotourism provides a location or place that is comfortable and peaceful, away from the hustle and bustle of the crowd and provides opportunities for visitors to unite with nature.
- b. Agrotourism has an amazing touch of nature, and maintains the existence of a sustainable agricultural business
- c. Agrotourism locations can be separate or integrated with the residence or house where they live.

These three things already exist in Karangrejo agro-tourism, which is managed independently by the community and supports the sustainability of the farming community as a means of tourism and education for local tourist visitors.

There are several benefits of agro-tourism, including:

- a. Maintain and improve environmental conservation  
Agro-tourism in its development must pay attention to the principles of managing the surrounding environment appropriately to preserve the environment so that it can support sustainable agricultural development (Nisa et al., 2019; Junaidi et al., 2019). To optimize the use of organic fertilizers and reduce the use of chemical fertilizer elements.
- b. Add value to natural beauty and aesthetic value  
Modification of the agro-tourism environment can add aesthetic value to visitors. Agro-tourism has strategic places and artistic layout planning, such as panoramic views of various plants, trash bins, selfie spots etc. (Prayoga et al., 2017; Jati et al., 2019).
- c. Provides recreational value.  
Agro-tourism as a place of recreation requires the provision of supporting facilities that can please visitors (Bimbi et al., 2018; Santika et al., 2019), such as providing opportunities for the mountains to pick their own crops.
- d. Improve knowledge development  
Agrotourism can generate enthusiasm in exploring knowledge and welfare (Adiputra et al., 2019; Parsudi & Santoso, 2017). Agro-tourism is a place for early morning educational facilities and provides curiosity from students or researchers.
- e. Obtaining economic benefits  
Providing business opportunities and added value to workers providing facilities for agro-tourism visitors (Despica, 2017), such as small traders and motorcycle taxis or passenger transportation businesses.
- f. Increase Production

There is an effort to increase the production of agricultural products through improving cultivation techniques through the integration of the use of appropriate technology (Purwanto et al., 2019; Kuncoro, 2019; Maulid, 2019). Convenience in marketing their products to visitors or tourists.

The sustainability of agro-tourism needs to be supported by the promotion of tourist attractions through digital media branding as an effort to expand and introduce vegetable agro-tourism in Karangerjo Metro Utara. Especially in this millennial era, where all aspects of the life chain are already *shifting* become completely digital or digitized, including in various sectors in tourism. On the other hand, the tourism sector must not be left behind in initiating the idea of convenience in the promotion of its tourist destinations. Because a demand is in line with the mindset of society as consumers who also change rapidly following technological developments. Some of the mandates that have been expressed by President Joko Widodo that there is a need to strengthen the tourism sector in Indonesia as the leading sector in national development. So that maximum efforts also need to be increased again by the ministry of tourism to encourage domestic or foreign tourists to visit Indonesia in enhancing national economic development, as well as improving people's welfare. Efforts to encourage and increase visits by local, domestic and foreign tourists in Indonesia are accompanied by new breakthroughs that are in line with the times, namely the declaration of digital destinations. Bungins (2015) explained that the destination can be interpreted as a collection of tourism products which are determined in an area. According to him, tourist destinations can be divided into several criteria, the first is a complete area, a village, the second, a village, the third is a place that has a special identity, such as a national park, the fifth is a group of countries.

The existence of digital technology has changed the mindset and behavior of people or consumers, this is also supported by the minister of tourism Arief Yahya that people's patterns of thinking and behavior are influenced by recognition factors from peers, namely fans, followers, and friends (3f) (Yahya, 2017). That opinion is the background for establishing a tourist destination that can fulfill the need for recognition from others and can increase self-confidence.

These tourist destinations are then called digital destinations. Destinations must be creative, instagramable and beautiful to upload to social media. In addition, destinations are also convenient for tourists and can be made viral (Admin Dispar, 2017). One of the promotional tools for tourist destinations is through the media, such as the internet. Internet media that can disseminate information without limits, interactive and can be done anytime and anywhere in real time. Like social media which is one of the media with the internet network. Some of the popular social media include Facebook or Facebook, Instagram, Twitter, and also the website.

## **METHOD**

In carrying out this mentoring program there are steps that are used, namely using the ABCD method or *Asset Based Community Development (INTERNATIONAL KKN at Islamic Higher Education - Sajidin, Andang Saehu, Asep Sulaeman - Google Books, n.d.; MM et al., 2019)*. This assistance was carried out to the farming community in Karangrejo Metro Utara. The methods and techniques of this service include, first, training and assistance in agricultural management in understanding the mechanization and use of technology in agriculture, training and assistance in the management of environmentally friendly organic agriculture. The second is digital media training and assistance by assisting farmers to understand and apply digital media such as Facebook, Instagram, websites, and others in order to promote Karangrejo vegetable agrotourism. All activities carried out are efforts to create a Farmer's school.

This assistance also involves a variety of activities *multis take holders* to support programs in implementing farmer community assistance programs, including university

institutions, academics and agricultural experts, and *Baitul mal Wat Tamwil*. With the synergy of cooperation *multistake holders*, is expected to accelerate empowerment activities so that the targets to be achieved in one year will be realized optimally. Some of the potential assets that exist in the farming community and the Karangrejo area are very potential.

This service assistance prioritizes the utilization of the potential and assets that already exist in the community. To be able to carry out the mentoring program, the steps used in this mentoring activity are ABCD asset-based community development, including the following:

1. Inculturation

There has been a process activity *meeting* with the assisted subject directly, namely through

- Vegetable farming business activities carried out by the farming community in Karangrejo Metro Utara.
- Evaluation of harvest yields and calculation of harvest yields are carried out routinely by farmers. Besides that, it also set aside 10% of the harvest for cash.
- There are mutual cooperation activities involving the local community.
- There is tenacity, tenacity, persistence and togetherness of the community, for 20 years they have been able to maintain consistency as vegetable farmers and become a source of food for vegetable businesses.
- There is participation and effectiveness of residents in the promotion of vegetable crops.
- There is a vegetable agrotourism managed by local residents.
- There are 4 farmer groups in this village, and some farmers work on their own land, there are also some farmers who work on individual land with the status of renting land for 1 or 2 years. With the principle of profit-sharing with landowners, and having become a culture in the community, this system seems to have had a good impact on solidarity
- Adequate infrastructure assets, facilities and natural assets, such as irrigation, mosques, meeting halls, asphalt road access, patrol posts, school districts, rice field area, agricultural area, etc. also make it easier for the community to carry out farming activities. The results of observations from the mapping of infrastructure and economic potential that researchers have carried out are very potential for both infrastructure assets, individuals (farmers), or natural assets

2. Discovery

There is enthusiasm and consistency in the farming community in an effort to foster innovation and creativity in carrying out their activities.

3. Design

Some of the planning steps that the facilitator will carry out together with the farmer group community include:

- The first step is to prioritize dreams, by utilizing and maximizing the potential of existing assets, both individual assets, social assets, natural assets, facility assets and financial assets. Through appreciative interviews, the facilitator found these assets including the existence of 4 farmer groups that work together to build villages through good land use, solidarity and consistency in carrying out the programs that have been implemented, *multi* Stakeholders involved, such as village head, RT, pt employees, farmer community, BMT, religious leaders, participating students, experts, etc. Apart from that, meeting activities which are held every 1 month are also still running, and the implementation of saving 10% of the harvest. And various infrastructures, adequate facilities also support this place.
- Build good communication with these communities. Unifying Vision and mission in achieving goals, by utilizing existing assets. After inculturation, approaching farmer

groups, and unifying the vision and mission, the facilitators conducted a series of FGD (Forum Group Discussion) to develop training programs to increase knowledge and productivity skills of farmers.

- The next step is to build good communication with these communities. Unifying Vision and mission in achieving goals, by utilizing existing assets. After inculturation, approaching farmer groups, and unifying the vision and mission, the facilitators conducted a series of FGD (Forum Group Discussion) to develop training programs to increase knowledge and productivity skills of farmers.
- Implementation of a local potential-based literacy culture development training program in the Karangrejo environment, for example getting to know the agricultural system of varieties of vegetables, corn, making organic fertilizers, and agricultural management including the concept of mechanization and technology. This activity is certainly involved *multi* stake holders, and brought in Mr. Eko, a PT employee who has been involved in agriculture for a long time. In this local potential-based literacy culture development training, the communities in Karangrejo learn together to get useful information, practice critical assessment of a problem that exists in society.
- Assistance Program training and management of organic farming and the use of agricultural mechanization. Digital marketing and digital media training and mentoring programs that farmers are expected to be proficient in utilizing social Facebook, Instagram, websites, and others in order to promote Karangrejo vegetable agrotourism. In this event, speakers Andy Noviandi, M.Pd.

#### 4. Define

Monitoring and evaluation carried out by the community by utilizing activities that already exist in the community, including mutual cooperation activities involving the local community, vegetable farming activities carried out by the farming community in Karangrejo Metro Utara, yield evaluation activities and yield calculations the harvest is done routinely by the farmers. Besides that, it also set aside 10% of the harvest for cash. There is a vegetable agrotourism managed by local residents

Apart from the community and the farming community, this assistance also involves various stakeholders to support the program in implementing the farmer community assistance program. *Multi* Stakeholders involved, such as the RT, the farming community, religious leaders, participating students, experts, etc. Apart from that, meeting activities which are held every 1 month are also still running, and the implementation of saving 10% of the harvest. And various infrastructures, adequate facilities also support this place. With the synergy of cooperation *multistake holders*, is expected to accelerate empowerment activities so that the targets to be achieved in one year will be realized optimally.

## RESULTS AND DISCUSSION

During the farmer school activities, the facilitators and assisted parties held several mentoring activities and digital media training on the use of social media, such as Instagram, and online-based graphic media editing using Canva. Then the Facilitator also held an activity on the concept of agricultural mechanization, namely making a PVC irrigation system. This is being done as an effort to build a roadmap for the digital marketing media movement, so that it will have an impact on the ability of farmer groups to recognize and utilize online digital media and apply agricultural mechanization that is more efficient and environmentally friendly.

This mentoring activity presented Andi Noviandi, M.Pd and Irhamudin, M.M as resource persons. He has experience in carrying out several mentoring activities, including entrepreneurship programs, building digital media branding in several communities, and manufacturing PVC pipe irrigation systems. The facilitator entrusts him as the driving

force for the community who has high dedication in providing scientific material on digital media branding and entrepreneurship, as well as agricultural mechanization

Figure 1  
Digital Media Assistance Activities



In building sustainable members, farming school activities also invite young men and women of the farmers' children, including students English Department at Universitas Ma'arif Lampung to take part in this activity. So the target to be achieved is not only to provide understanding to digital marketing media entrepreneurs to farmers, but also to young people and women in building sustainable assistance. The mentoring activity was held on December 15, 2022, by bringing in the resource person, Mr. Andi Noviani, M.Pd. In the initial session, the resource person shared experiences regarding the types of digital marketing that are currently a trend in marketing, such as online shop websites, Instagram, Facebook, etc. For example, optimizing the use of Instagram. The resource persons provide tricks related to the use of social media, Instagram with the organic Instagram trick system. In this explanation, the resource person explained various unique features on Instagram and how to optimize Instagram's social media features, which are enabled to add insight and be able to take advantage of Instagram facilities as a means of social media that is independent and generates a profit.

Currently, many users are competing to have Instagram by increasing the number of followers. This is intended to build personal branding or market a new product or brand. Because many of the assisted objects do not understand the virtues of Instagram features.

In this accompaniment, the resource person provided several tips on organic Instagram, including completing a profile, creating quality content, hashtags, public accounts, posting quality content. From some of the data released, Instagram is a social media that is widely used by users in the world. Optimizing various kinds of features on Instagram can open up business opportunities and partnerships. Some of the advantages that exist on Instagram include promoting goods and services to be more efficient. In addition, the use of media is in sync with Facebook.

This assistance also describes how to optimize Instagram in advertising services and products with different durations. Even though you have to pay for advertising, so that the targets to be achieved can reach more people with advertisements.

For an advertising period with a duration of 3 days, usually the range of users that can be reached is between 1000 and 2000 with a budget of 180,000 per item of publication. For the target market, with a range of 5000-8000 users, a budget of 325,000 is usually needed with a duration of 7 days. Whereas for the target range of 10,000 – 15,000 users, for 14 days the required cost is 885,000.

At the Instagram introduction stage, the resource person also introduced several stages in optimizing a business Instagram account. As well as utilizing various features on Instagram Business

- Optimizing Instagram Business Profiles

At the introduction stage of the business Instagram profile, the facilitator explains the benefits of using Instagram bio, which can be filled in 150 - 200 words. This Instagram bio functions as a profile and description of the type of goods sold, contact person, or other information that contains the Instagram description. The facilitator provides tricks for optimizing views, namely describing advantages, uses, testimonials, value, or adding promos to the items being offered. Or by adding service information for customers 24 hours by providing a Whatasp Business link as an alternative to communicating directly with customers. Or also make branding *hashtag* and put it in the Instagram bio, so that the brands on Instagram can be recognized by audiences.

- Determine the posting schedule

At this stage, Instagram business account users must be able to analyze the right time to post. At this stage the facilitator determines the ideal time to post is at 6 am, 12 noon and 3 pm.

- Optimizing Hastags

At this stage the facilitator provides tricks on how to build brand hashtags on posts and the types of items to be posted.

- Create contact and email buttons, or a website

Links are indispensable in branding business Instagram accounts. At this stage the facilitator provides knowledge on how to link links in the Instagram bio. So that. Visitors who stop by can find it easier to contact with these two buttons

- Create interesting content

At this stage the facilitator gives a trick that in making posts it must be in accordance with the intended theme, due to limitations in creating description content on Instagram, the main thing is to make the visual / display of the advertisement to be posted look straightforward, attractive,

- Optimizing Insights

At this stage the facilitator provides tricks on using insight as an analytical tool. Because this feature can show every activity that occurs on the account page on every data that has been posted. So that you can see the performance of business Instagram explicitly, namely from the scale of impressions, followers / followers, demographic data, age, gender, visitor / visitor favorite hours, and visitor performance and likes every hour.

- Optimizing Ads or Ads on Instagram

At this stage the facilitator discusses the benefits of Instagram by using advertisements, so that it can reach a wider audience. With this Instagram ad, account users candisplay ads on the sidelines of their stories and explore on Instagram.

The next activity is also filled with digital media assistance for Online Graphic Design Applications for Digital Marketing Content. Some digital media, especially graphic design design and editing. It is a simple medium that is easy to apply by the user. In this digital media mentoring activity, the facilitator and resource person explained one of the photo editing media, famlets to compare capabilities in image media processing, namely

the use of Canva features. Canva media is a modern media that is currently widely used by millennials. The advantage of this Canva media is that it is easy to use which is an online-based graphic design application, so even ordinary people are very easy to use because it is available for both desktop and mobile versions. With various existing features. This online-based graphic design is easy to use even for ordinary people. One of the factors that greatly determines the success of this mentoring activity is how attractively the media used is designed. The Canva application used in designing famlets or photo media is very appropriate, because it contains templates that can be used to design material content in an attractive way, as has been done in this mentoring.

Several previous findings revealed that the use of Canva's online graphic media is very important in designing flyers that are more danceable and suitable for use by various age groups. The feasibility measure can be seen from various aspects, for example attractive design, as well as the clarity of the material content presented in the media.

In farmer school activities, the facilitator and assisted parties also make a pipe irrigation system. The application of a pipe irrigation system as a means of distributing water in the long term can be more efficient and at the same time minimize potential loss of water sources. In the activity of implementing agricultural mechanization of the pipe irrigation system, the assisted subjects make use of water irrigation channels that are flowed through diesel jatsat devices or alkon which function as water suction in water irrigation. The use of a pipe irrigation system saves the energy of the farmers because watering is done automatically.

In this assistance the facilitator together with the assisted subject prepares several components of the irrigation system, which consist of water sources, water pumps (alkon), water pipelines; consisting of PVC pipes or paralons, T pipes, connectors, etc. The use of this water pipe irrigation system has an impact on optimizing the use value of water.

This assistance has a significant impact on the solidarity of the farmer group community and the community around Karangrejo Metro Utara village. From the various activities that have been carried out, some farmers have been creative in utilizing vacant land around their yards for vegetable farming activities, in addition to the availability of a PVC pipe irrigation system, which is one of the outcomes of the agricultural mechanization concept. In addition, there is online digital media, namely Instagram, to improve the skills and creativity of the farming community in building a roadmap for the digital marketing media movement, so that it will have an impact on the ability of farmer groups to recognize and utilize online digital media.

Figure 2  
The Creativity of Karangrejo Farmers Utilizing Empty Land





Like Mr. Sutrisno (40 years), Mr. Ridwan, Mr. Budi, etc. Those who use the yard of the house for farming vegetables, such as taicim, kangkong, lettuce, green onions, etc. Optimizing the yard for the cultivation of vegetables does not have to be extensive. Any area of the yard can be used optimally, so as to increase the creativity and productivity of farmers. Residents' farming activities are starting to be felt from one resident to another who can make quite a useful contribution to efforts to meet their nutritional needs.

With farming activities using the yard in an efficient and sustainable manner, the family's expenses are reduced because the use of vegetable production can generate large profits. So that by making use of the yard, it means that the family concerned has implemented economic principles in increasing income.

No matter how large the yard of the house can be used efficiently by farmers so that it can have an impact on increasing vegetable productivity and can also make a significant contribution to efforts to meet the nutritional needs of the family. In utilizing the yard with vegetables, the cultivation aspects of the vegetables that are planted must also be considered. Some of the vegetable plants that are cultivated are such as

The application of an agricultural mechanization system has been implemented by the Karangrejo farmer group, as well as innovations in facilitating the continuity of agriculture, especially vegetables, which have been implemented by farmer groups in Karangerjo, namely the creation of a pipe irrigation system. Facilitator Together with stake holders and farmer groups have committed to implementing efficiency and effectiveness of water sources as the main source of vegetable crop needs. The application of a pipe irrigation system as a means of distributing water in the long term can be more efficient and at the same time minimize potential loss of water sources. In the activity of implementing agricultural mechanization of the pipe irrigation system, the assisted subjects make use of water irrigation channels that are flowed through diesel jatsat devices or alkon which function as water suction in water irrigation. The use of a pipe irrigation system saves the energy of the farmers because watering is done automatically.

In this mentoring the facilitator together with the assisted subject prepares several components of the irrigation system, which consist of water sources, water pumps, water pipelines; consisting of PVC pipes or paralons, T pipes, connectors, etc. The use of this water pipe irrigation system has an impact on optimizing the use value of water. So far, when distributing water, farmer groups used large buckets and carried it repeatedly using a dipper, now they have switched to the use of agricultural mechanization, namely the water pipe irrigation system. Where the water used in pipe irrigation systems is more

efficient, and time efficiency is more useful, compared to traditional systems. Because the provision of water that is traditional, the amount of water is not balanced and less and will reduce the evaporation rate, the flow of water to the growing media is not efficient.

In addition, the existence of a water pipe irrigation system has had an impact on increasing plant growth and yields, because the water pipe irrigation system can maintain soil moisture temperature so that it will be optimal for plant growth. In addition, this irrigation system can avoid the risk of salt accumulation. Continuous watering will dissolve and keep salt away from the root area, it can also suppress weed growth because water is only limited to the area around the plant, so weed growth can be suppressed.

Several previous findings revealed the successful use of pipe irrigation systems by farmers, that the use of this system has an efficiency level of 80-95% compared to bulk irrigation and traditional systems. Continuous provision of water in small quantities with a pipe irrigation system can maintain soil moisture, as well as meet water availability.

In the activities of using digital marketing media to optimize more on training in the use of digital media, such as Instagram as a platform for online digital marketing. Instagram.Stakeholders also provide tricks on the organic Instagram system db by optimizing the features on Instagram.

The impact of this activity is the Karangrejo Metro Farming School's Instagram Digital Media, as an online digital media platform that can be accessed as a means of information and promotion of agricultural activities held by the Karangrejo Metro Farmer Group. The facilitator will continue to optimize this Instagram feature, bearing in mind that the implementation of new activities will start in early December 2022, so you still need to optimize your Instagram account.

This activity can add experience and open the mindset that in welcoming the 5.0 era, many social media functions as facilities to generate profit, independence, and new business opportunities. Because many of the assisted objects do not know the virtues of using Instagram as a digital marketing platform.

## **CONCLUSION**

Facilitators, stake holders and assisted parties have carried out activities including mentoring activities and digital media training on the use of social media, such as Instagram, and online-based graphic media editing using Canva. Then the Facilitator also held an activity on the concept of agricultural mechanization, namely making a PVC irrigation system. This assistance has a significant impact on the solidarity of the farmer group community and the community around Karangrejo Metro Utara Village. From the various activities that have been carried out, some farmers have been creative in utilizing vacant land around their yards for vegetable farming activities, in addition to the availability of a PVC pipe irrigation system, which is one of the outcomes of the agricultural mechanization concept. Farmers also apply the concept of organic farming by preparing superior seeds that have been sown properly, from preparing the land to planting vegetable seeds. In addition, there is online digital media, namely Instagram, to improve the skills and creativity of the farming community in building a roadmap for the digital marketing media movement, so that it will have an impact on the ability of farmer groups to recognize and utilize online digital media.

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