Agriculture development requires the role of many institutions. Achieving agricultural development is needed to develop economics. At the regional level, agriculture is one of the primary sources of livelihood. We need to solve problems in agriculture to achieve agricultural development. One institution that will be observed in this study is the women farmers group, their role in solving agricultural issues, and agriculture development strategy in the village. This study analyzes women farmers’ role in agriculture development strategy in Jeruksawit Village, Gondangrejo, Karanganyar, Central Java. The primary research method used in this study is descriptive with an explanatory research approach. The location was chosen in Jeruksawit Village, Gondangrejo, Karanganyar, Central Java. The study was carried out from November to December 2021. The place was chosen because there is a women farmers group and some problems with agricultural developments. The data used are primary and secondary. The preliminary data were collected through in-depth interviews, field observation, and triangulation. To assess information for primary data, this study uses key informants as the information source. The secondary data were collected from Central Bureau Statistics Central Java, literature review, and farmers group archives. The analysis method used is the analysis of Miles and Huberman, which is carried out through data reduction, display of data collection, and verification. The results of this study show that the women farmers group plays an essential role in agriculture development by training farmers to increase farmers’ education, doing comparative studies to understand agriculture better, providing partnerships between farmers, and providing agriculture counseling.

**Keywords:** agriculture development strategy; descriptive analysis; women farmers group.

**INTRODUCTION**

It is known that agricultural development is an important topic, especially for developing countries. The development in the agriculture sector is needed because agriculture plays an important role. The agriculture sector contributes to GDP and has a high labor absorption, especially in rural areas. Most rural residents work as farmers (Sujimin et al., 2019). Agriculture in rural regions is characterized by a narrow land area, small capital, abundant labor, lack of education, and hard-to-adapt innovative technology (San, 2018). This characteristic can lead to delays in agriculture development.

Agriculture development requires cooperation from various institutions, including farmers and stakeholders. One of the agriculture development strategies is to create a farmers’ group. Farmers groups are defined as forums to provide social activities and the part of the structure of a region (Effendy & Mustofa, 2020). Farmers’ group was created to improve efficiency and effectiveness in solving agriculture problems (Munanto, 2016). Farmers group can be divided into two groups: men farmers group and women farmers group. This happens because of different motivations, interests,
commodities, and farming experiences. They are forming farmer groups that aim to improve their agriculture business and develop agriculture (Reza et al., 2019).

The agriculture development in Jeruksawit village is constrained because of several problems. The limited knowledge of farmers related to farming made the existing land can not cultivated optimally, although farmers have been able to determine suitable commodities. Farmers can not adapt to technology also makes insufficient work. They gain low profits or almost do not get any profit because they don't know how to market their product. With the main objectives of applying an agriculture development strategy and solving agriculture problems, farmers in Jeruksawit village decided to create a farmers' group. This farmers' group was created based on shared interests to advance agriculture in Jeruksawit Village. Farmers groups in Jeruksawit Village are Kelompok Tani Sumber Rejeki (Sumber Rejeki farmers group) and Kelompok Wanita Tani Jesa Karya (Jesa Karya women farmers group).

The existence of the institutions certainly had an impact on the agriculture of the village community. As an institution, the Sumber Rejeki Farmers Group and Jesa Karya Women Farmers Group can encourage the community to grow organic agriculture that has value-added in the market. However, Jeruk Sawit Village, Gondangrejo, Karanganyar, still needs various aspects for the village's progress and the community's economy. Therefore, this research aims to analyze women farmers' role in agriculture development strategy in Jeruksawit Village, Gondangrejo, Karanganyar, Central Java.

**MATERIALS AND METHODS**

This research was conducted from November to December 2021 in Jeruksawit Village, Gondangrejo, Karanganyar, Central Java. The method used in this study is descriptive with an explanatory research approach. This qualitative study describes the role of women farmer groups in agricultural development in the village of Jeruksawit. The location is determined using the purposive sampling method. There are two data in this study: primary data and secondary data. Data collection techniques used in this study are in-depth interviews, field observation, and triangulation. Preliminary data were obtained from direct observations of the Jeruksawit Village area and in-depth interviews with key informants. The key informants in this study consisted of a village, the head of men and women farmers group, agricultural extension workers group members, a community representative, the village secretary, the village apparatus, and the director of the hamlet. The secondary data needed in this study was obtained from the Central Bureau Statistics Central Java, literature review, and farmers group archives. The qualitative data analysis model used in this study is the analysis of Miles and Huberman (1994), which is carried out through data reduction, display of data collection, and verification. The role of the women farmer group, KWT (Kelompok Wanita Tani) Jesa Karya, consists of KWT Jesa Karya's participation in agriculture development in Jeruksawit Village.

**RESULTS AND DISCUSSION**

**Problems in Agriculture Development**

The residents of Jeruksawit village primarily work as farmers. The crops produced are food crops, especially vegetables. As many as 609 people, or around 17.7% of the population in Jeruksawit village are farmers. Every town can't be separated from agricultural problems, including Jeruksawit Village, Gondangrejo, and Karanganyar Regency. Several issues arose in the city, such as technological transformation and human resource development. The agricultural problem in Jeruksawit village is the limited knowledge of farmers related to their farming business. Such as, they still can not cultivate the existing land optimally, although farmers have been able to determine suitable commodities to be planted according to weather conditions, soil, and others. So, to overcome this first problem, limited farmers' knowledge in farming through conducting training and counseling assisted by agricultural extension workers. According to Sutrisno and Heryani (2019), agricultural extension activities are a continuous process to convey useful information and technology to farmers and their families.

Another agricultural problem in Jeruksawit village is the lack of water sources. Farmers have difficulty irrigating their land because the primary water source is only PDAM. This indirectly makes the crops lack water, so the production is not optimal. Subandi et al. (2017) state that water quality will affect land productivity, plant health, and the environment. Solving this water problem can be overcome by making a simple rainwater catchment system to fill the water in the village farmer's land. Before making a rainwater catchment system, farmers can use a calendar of planting season to adjust what commodities are planted in the current season so that crop failure does not occur.
According to Sutrisno and Heryani (2019), the solution to water shortages is necessary to increase or establish new water management institutions.

More problem is the attack of pests and plant diseases, which are hard to control. According to Prayogo and Bayu (2020), pests are the main problem in increasing agricultural production in Indonesia. Farmers can control pests but are less effective and do not follow integrated agrarian recommendations. Improper control can disrupt the ecosystem and the environment around the land. Hersanti et al. (2013) stated that training in making natural pesticides to control pests and plant diseases has been proven to increase the ability and willingness of farmers to make vegetable and microbial pesticides. Following the opinion of Christoporus and Rosmini (2020), guidance and assistance are needed for farmers so that the technology is appropriate, especially for increasing production and controlling pests. So that crop production can be improved.

Farmers also have problems selling their crops. Farmers often find it difficult to sell their produce at prices that cover production costs because they are sold to mediators. For example, the selling price of vegetables per bundle is less than IDR 1,000.00 because farmers also do not have other marketing channels besides mediators. According to Anggraini et al. (2020) and Mahmudah (2014), farmers’ bargaining position is low because the prices received by farmers tend to be humble, which will affect the income farmers earn. This is also related to the common knowledge of farmers about digital marketing, which has developed along with the growth of technology. The era that has reached the 4.0 revolution requires many parties to adapt and switch to using technology. This cannot be done in Jeruksawit Village, so many obstacles are still related to the technology used.

Women Farmers Group Role
The role of women farming groups is to solve problems in agriculture in various ways. Their contribution is indicated by their active participation in agricultural activities or making strategies to develop agriculture in the village. This women farmer group always holds regular meetings to find out what problems are occurring and discuss the best solution to these problems. To solve the agriculture development problems in Jeruksawit village, women farmer groups conducted farm training and counseling assisted by agriculture extension workers. When a farmer group member’s crop gets attacked by pests or plant diseases, the leader will act as a coordinator explaining what needs to be done. The leader is not only the decision maker but also the activator of the group to work or make decisions and tries to stimulate or encourage the group to carry out the activities that have been determined. The discussion results will determine what action will be taken, whether to apply pesticides periodically and monitor or eliminate plants affected by the disease so that it does not spread to other plants. Other than that, the women farmers group also conducts technology training. Technology training is essential, knowing that farming technology can increase productivity and sustainability.

Comparative study activities also carry out women farmers’ group development. This comparative study activity serves as a teaching and learning platform for its members to improve knowledge, skills, and attitudes and grow and develop independence in farming with increased productivity, income, and more prosperous life. Women farmers’ groups are also open to collaborating with other farmers. Through this collaboration, agriculture is expected to be more efficient and deal with threats, challenges, obstacles, and disturbances. Women farmers’ groups also function as production units, carried out by each member of the farmer group as a whole as a business unit that can be developed to achieve economies of scale in terms of quantity, quality, and continuity. According to Siswoyo et al. (2013), farmer groups are institutions at the farmer level that have a role in developing business units together. Agricultural extension workers also need to play an active role, considering their important role in developing farmer institutions (Anantanyu, 2011).

Strategy and Model
All models of agricultural development focus on increasing productivity (both land and labor) and increasing welfare (standard of living). The induced innovation model is a model that brings together two essential things in agricultural development, namely the advantages of technology and institutional benefits, including changes to these two things. This model exists because of previous models’ limitations, which stated that technology cannot be separated from the users. This model was put forward by Hayami and Ruttan (1985) in their book “Agricultural Development,” which began with previous studies. There are four main things in increasing agricultural growth: technology, resources (both natural and human), institutions, and cultural wealth.

Technology is increasing production by maximizing equipment, facilities, infrastructure, superior varieties, and so on (Rondhi, 2016). Institutions can be interpreted as ways to transfer goods and services from one to another—for example, a group of ways to share technology, resources,
knowledge, etc. Resources are natural assets regional entities own, while regions own rich cultures. These four things are interconnected and support each other. Institutional also has meaning as a rule that facilitates institutions or organizations in coordinating and working together to achieve the desired common goals.

The agricultural development strategy that can be carried out in Jeruk Sawit Village, Gondangrejo, Karanganyar through the induced innovation model is by allocating resources appropriately, such as carrying out production using related inputs with the integration of other sectors such as livestock to reduce costs and optimizing technical efficiency, in addition, modernizing or digitizing the marketing system by building an information system that is very important for the formation of an efficient market. Carrying out technology innovations is undeniable because science and technology are increasingly developing. So, to balance them requires scientists or technological visionaries in agriculture, as well as human resources who can adapt to technological developments.

Many available technologies help the agricultural sector, such as transplanters, machines for selecting high-yielding seeds, indo-combine harvesters, and others. Therefore, training or mentoring is essential for farmers in Jeruksawit Village, Gondangrejo, Karanganyar.

CONCLUSIONS AND SUGGESTION

Jeruksawit Village faces several problems in agriculture. These problems are mainly related to agricultural production procedures, technological adaptation, and marketing. The settlement of agricultural problems in Jeruksawit Village was supported by forming a women’s farmer group. This women farmer group acts as an initiator to solve various problems by 1) conducting meetings to find out problems and share, 2) technology training to adapt using technology, 3) cooperating to solve pests and plant diseases, 4) adding knowledge by conducting comparative studies to improve agricultural knowledge. Women farmer groups participate and are involved in some agricultural activities actively. In addition, they also have contributed to making strategies to develop agriculture in the village.

REFERENCES


