Innovation Smart Farm and Garden  
(Islamic Boarding School Islamic Studies Center  
Aswaja Lintang Songo, Bantul)

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Abstract:
The threat of a food crisis faced by a number of Islamic boarding schools today is clear. One of them is the Islamic Studies Center Aswaja Lintang Songo Islamic Boarding School, Bantul Regency. Therefore, this pesantren has a smart farm and garden innovation to supply food needs and boost the pesantren's economic sector. The idea was initiated by Kiai Heri Kuswanto as the caretaker of the Lintang Songo Islamic Boarding School who was assisted by all his students in their activities, especially on agricultural land and plantations. Smart Farm and Garden is an integrated management of the agricultural and plantation sectors using modern technology. This study aims to find out how the smart farm and garden innovation process is practiced in the field. The research method used is descriptive qualitative with the type of research field research (field research). Data collection techniques include observational studies, interviews and documentation. The results of this study are smart farm and garden innovations to grow a new economy based on the entrepreneurial sector. This idea also has a positive impact on the birth of santri independence in managing agriculture and plantations. The harvest will be exported to several areas in the Special Region of Yogyakarta DIY for the income of Islamic boarding schools, so that the financial budget is well fulfilled.

Keywords: Smart Farm and Garden, Santri Independence, Food Security, Lintang Songo.
INTRODUCTION

In their work, a number of Islamic boarding schools have transformed into various forms of curriculum, quality of human resources, learning models or adjustments to the technology used to support learning activities. Strong and rooted social ties in the local community require pesantren to play a role in producing a generation of quality and competitive santri. (Sugandi Asep, Basri Tanjung, Hasan, and Khotamir Rusli, 2017) As far as the times are increasingly dynamic, pesantren has experienced a paradigm shift that Initially an institution based on religious education, transformed into human resources capable of bringing about social change and participating in creating jobs. The rolling paradigm is actually more directed to the economic sector. (Baqi, 2019)

The existence of pesantren is not limited to instilling religious knowledge alone, but is able to provide benefits to the surrounding community. The need for modern boarding schools to have new breakthroughs, both in the education system, management or output of students after graduating from pesantren, can take part and be useful in society. Islamic boarding schools can take on a role to empower the community through the economic, social and educational sectors. These three important elements are the foundation for strengthening the existence and work of pesantren in the contemporary era. (Arif et al., 2020)

Role of pesantren is to realize the welfare of santri and answer various problems, especially the food crisis that continues to shackle. (Bustomi et al., 2017). The existence of global challenges that are getting stronger until they blow in rural areas have made a number of Islamic boarding schools not focus on teaching based on religious science and technology, but involve entrepreneurship education. In this case, Islamic boarding schools need to transform into a number of forms to produce quality output and generations, especially in the field of entrepreneurship. (Susilo, 2021) The Formation of smart farm and garden is in line with Rogers and Shoemaker's opinion in Hanafi that in the concept of innovation diffusion there are several stages in the innovation process. where a person begins to assess new ideas that are directly connected to the current situation of people's lives to the future.
Decision-making of innovation is accepted or rejected by the community depending on the compatibility of ideas with values that apply in a social system. (Hanafi, 2009)

The birth of smart farms and gardens in suburban areas with agricultural and plantation bases in Pagergunung Hamlet is actually easier to accept. The suitability of geographical factors and supported by adequate natural resources made the idea grow well. Agricultural land and plantations belonging to the pesantren are adequate for planting a variety of vegetables, fruits and a number of trees. Innovation smart farm and garden is actually supported by the local community because there is a harmony in the social system of the community in agriculture and plantations as the center of the economy. Efforts to move the economic sector based on agribusiness pesantren is one alternative as an expansion of the role and utilize a number of lands in the cottage area. This is an innovation to grow the economy, especially several Islamic boarding schools located in rural areas. Through entrepreneurial-based boarding schools, it is hoped that they can produce quality generations as innovators in agriculture and as agents of social change in society. (Amongjati et al, 2020)

The combination of Islamic scientific studies, communication technology and a number of entrepreneurial activities in pesantren is certainly quite relevant to keep pace with the pace of change social and global challenges. This is also an effort to answer social problems that occur in the community and efforts to fulfill food needs in Islamic boarding schools internally. In turn, this will have a positive impact on the finances of the pesantren, which may have only relied on student fees. The inability of pesantren to produce good food considering the limited land is an obstacle to the establishment of entrepreneurship-based pesantren. In fact, food security for the sustainability of life in an Islamic boarding school to support the food needs of a number of students is something that should not be ignored. The emergence of agribusiness-based pesantren provides an alternative to a number of problems that occur in society and dispels the stigma of pesantren which is identical to religious science-based learning oriented to make students more independent, especially in terms of agriculture. This pesantren is not only taught religious knowledge, technology, but also participates in fostering a
number of students engaged in the agricultural sector. (Alifa et al., 2021)

The availability of a number of lands in the Lintang Songo Islamic boarding school is put to good use and then used to produce food and other sources of food energy.

Departing from the concerns of the young generation who are smart to make money but do not understand religion or are fluent in religious sciences but are not economically independent, this became one of the forerunners to the establishment of the Lintang Songo Islamic boarding school in 1991. (Youtube: Forum Ijtima 'Ulama', 2022). Accommodating a number of gang children, ex-convicts, depressed people, gangs of thugs, robbers, drug users and ex-killers. All of them are well nurtured by this pesantren with the hope that their behavior will change for the better in the future, to train independence in entrepreneurship. An agribusiness-based pesantren innovation was initiated in addition to answering a number of food security problems and efforts to train students' independence. Prepare life skills with various activities in the agricultural sector, animal husbandry, fish farming, to home-based businesses. The pesantren's efforts to empower its students receive full support from the Ministry of Agriculture through the LM3 program, which is an independent institution rooted in the community. (Ono/Wiradesa, 2021)

Islam has taught how to be a creative and innovative Muslim person to provide benefits to the community. Prophet said in a hadits, “The best people are those who can benefit others”. (Darquthni, nd)

In turn, the establishment of a smart farm and garden innovation at the Lintang Songo Islamic Boarding School encourages other Islamic boarding schools to initiate similar innovations. Meanwhile, the purpose of this research is to find out the process of running smart farm and garden innovation and its contribution to the wider community. The author sees his practice in the field as something interesting to follow up.

METHOD

This entrepreneurial activity was carried out in the area of the Aswaja Lintang Songo Islamic Studies Center Islamic Boarding School which is directly in contact with the agricultural and plantation sectors. During free time, all students are required to take part in a series of activities in the agricultural, livestock, fishery or home industries. This
socio-economic activity involves a number of agricultural practitioners at several universities in Yogyakarta to foster students in agribusiness development. Lintang Songo Islamic Boarding School collaborates with a number of experts in the fields of agriculture, plantations, animal husbandry, and home-based businesses ranging from higher education institutions such as Gajah Mada University, Yogyakarta State University, Sunan Kalijaga State Islamic University Yogyakarta, Nahdatul Ulama University, Bantul Regency Agriculture Office, and the Regency Government Bantul. The research method used is qualitative with the type of research field research. While the data collection techniques include observation, interviews and documentation. The researcher was directly involved in entrepreneurial activities with a number of santri and kyai on agricultural land belonging to the Lintang Songo Islamic boarding school.

**RESULTS AND DISCUSSION**

**A. Lintang Songo Smart Farm and Garden as an Effort for Food Security**

Lintang Songo Smart Farm and Garden is leading activity developed by pesantren to date. This idea was formed in order to supply the food needs of students, which is always increasing every year and to move the economic sector of the local community. At the beginning the idea of this innovation was made simply by utilizing land around the pesantren to be planted with various vegetables, fruits and so on. (Interview Heri, 2022). Smart Farm and Garden is designed to be a productive land area by integrating the agricultural and plantation sectors in an integrated manner. Do not miss the livestock sector, fisheries, mushroom cultivation, and household productive businesses are collaborated in an integrated manner. To this day, it has been equipped with a Garden and Resto, meeting hall and other supporting facilities. These supporting factors are additional facilities provided by the pesantren to accommodate the creativity of students in entrepreneurship. (Heri Interview, 2022)

Agricultural land owned by the pesantren was once a barren area and water was scarce, even the distance from the Opak river was relatively far. But now it has been converted into a green garden with rice plants, various vegetables, flowers and other herbal plants. The portrait
of a smart farm and garden turned into a productive area to move the agricultural and plantation sectors, thus having a significant impact on the efficiency of the pesantren's internal food problems. (Hidayati Interview, 2022). One of the initial goals of the Lintang Songo Islamic boarding school was and the formation of smart farm and garden innovations so that they go international. All international communities are expected to be aware of this idea and exchange information, knowledge and share agricultural and plantation products. The use of land belonging to the pesantren is used properly to cultivate rice, corn, teak trees and various kinds of fruit such as guava and mango. (Interview Kuswanto, 2022)

Pesantren Lintang Songo is not focused on planting religious knowledge, monotheism, morality, general knowledge, science, technology, but are also educated to take advantage of the potential of their natural resources. Caring for nature as part of loving God’s creation given to his servants. Activities in agriculture and plantations are routine activities every day in the fields. They are trained for how to cultivate plants. The active participation of a number of students in routines in the fields adds a new spirit to the movement of the agricultural sector. (Rubiman Interview, 2022). Productive land in the form of vegetable gardens and flower gardens has succeeded in encouraging students to participate in the entrepreneurial sector. This concept is in line with Rogers’ opinion in Sciffman and Kanuk that innovation is an idea that is considered new by someone. Therefore, the novelty of the innovation is measured from subjectivity according to individual views. An innovation is considered new by the environment but in other environments it is considered normal and has initiated it. (Sciffman and Kanuk, 2010)

The smart farm and garden innovation practice takes place every day involving kiai, ustad, ustazah, students and the local community. This collaborative Islamic boarding school collaborates with experts in the field of agriculture at Gajah Mada University in order to guide students in how to cultivate good plants. The initial obstacle to the running of this innovation is the water channel. (Rubiman Interview, 2022). Heri Kuswanto has the idea to install a generator pump and a 6-dim diameter paralon pipe with a length of 600 meters which directly connects to the Opak river which is located west of the Pesantren. The
pumped water is raised to a holding tank and then channeled to rice fields, plantations, and fish ponds. "Alhamdulillah, this 4-5 hectares of land continues to produce throughout the year to meet the food needs of managers, students and local residents. (Kuswanto Interview, 2022)

This is intended to manage a vegetable garden and fish pond located on an area of 5 hectares owned by Islamic boarding schools managed by kiai, santri, and assisted by the local community. A number of vegetables were found starting from rice, corn, and eggplant that thrived on this land. The use of the land takes fertile soil for the sustainability of plants to grow well. At harvest time, a number of students, the community and visitors are free to pick vegetables for free. This vegetable garden was created apart from being a need for students in terms of food for students, it is also intended for the community and visitors to take it. (Hidayati Interview, 2022). The development of the agricultural and plantation sectors on the other hand becomes an agribusiness-based tourist destination that encourages local or foreign tourists. This will have a good impact on the progress of pesantren in agriculture and plantations as biological natural resources. This social change has a positive impact on the community’s economic recovery and creates jobs, especially for the residents of the Pagergunung hamlet. (Yushara, 2018)

Nasution explained the emphasis on categorizing adoption in the form of consequences received by related elements in a smart farm and garden. Related groups involving kiai, santri, ustad and ustadzah, as well as local communities to carry out these innovations. Every day, especially in the afternoon, students’ activities on agricultural land are seen to carry out smart farm and garden innovations. (Kartikawati, 2019). Innovation smart farm and garden in supplying the food needs of pesantren. “When we need fish, but we don’t have any, we immediately build a pond for fish farming. When we want to eat vegetables, we don’t have any, we grow vegetables in the garden. When you want to eat chicken, why don’t you have one, so we make a chicken farm. It was this simple and simple principle that finally made the Lintang Songo Islamic Boarding School have a business unit, we made it with an integrated pattern. So when we set up a cattle farm, we just looked for grass feed in the gardens and rice fields. Instead, the cow dung is reprocessed so that it becomes fertilizer and we give it to the fields or gardens. We always apply this integrated
pattern to all students. (Heri Interview, 2022)

The implementation of this smart farm and garden is going well along with the development of information technology to enter rural areas. Meanwhile, the communication channel used by Heri Kuswanto as the initiator of the smart farm and garden innovation uses oral media. Every afternoon all the students are invited to the fields to clean the plants, water them and feed the fish. Using oral media well, Heri Kuswanto was able to carry out all his students and had a good impact on the interaction between kiai and students in daily interactions at the pesantren. (Nisrokha, 2020) Community Service activities every Sunday are routinely carried out to train students in entrepreneurship in a sustainable manner. While their average age ranges from 15 to 20 years, they are taught how to grow vegetables, make manure, and make edible mushrooms. “I am also involved in the manufacture of manure. Previously, it was taken from cow dung and then mixed with clay to become manure. The results from the compost are put into polybags first before being transferred to a wider area. The goal is for plants to grow, the process is faster and healthier. (Interview Zahro, 2022)

Figure 1. The Process of Making Compost Fertilizer

![Figure 1. The Process of Making Compost Fertilizer](source: Baidawi, 2022)

After that, the processing results are put in small polybags to be planted with various vegetables such as mushroom, mustard greens, eggplant, beans, gambas, chilies and so on. Meanwhile, to meet the needs of students, Islamic boarding schools manage agriculture in an integrated
and integrated manner. Various side dishes are provided such as catfish, tilapia, and carp. In the cottage area there is a wudhu' place where the water flow is channeled into the fish pond and water from the pond to water the guava, tail, papaya, mango and other plants without having to re-water the existing plants. (Haidar Interview, 2022)

Various perennials here are also available such as teak trees, sengon where there are about 5 thousand trees. Not to forget, herbal plants such as bay leaves, noni fruit, binahong, and telang thrive. Arsyad Assyafuq, one of the students, said that he had been staying for 2 years and enjoying it. “I am involved a lot not only in Koranic book or school activities but here I am taught how to manage agriculture well, raise fish, make manure and much more. Integrated and utilizing advances in information technology makes the Bantul Regency government appreciate this program. The visit of the Bantul Regency Government to the Lintang Songo Islamic Boarding School added a new spirit to develop better and organized future innovations. In turn, smart farm and garden have a positive impact on the community. (Ono/Wiradesa, 2021)

Especially at this time of the rainy season, where all plants that grow in rice fields are always exposed to rain. Even without watering, various plants such as rice and corn are watered by rainwater. Please note, all students come from various regions in Indonesia ranging from Aceh, South Tapanuli, Medan, Padang, Palembang, Lampung, Banten, Jakarta, Bandung, Subang, Ciamis, Pemalang, Ngawi, Pacitan, Jember, Probolinggo, Kalimantan, Nusa Tenggara East and Ambon. As of January 2021, there have been 70 students consisting of 27 male students and 43 female students. The educational level of students starts from elementary school, junior high school, junior high school, high school, Strata 1 S1, Strata 2. Where they are cared for by 5  ustaz and 1  ustazah. (Hidayati Interview, 2022)

Heri Kuswanto explained his vision of establishing a pesantren which emphasizes on aspects of independence, quality, and benefit for the wider community. This is supported by its mission of understanding Islam comprehensively, training skills and galvanizing all students to care about their social environment. "It is hoped that after graduation, they will be able to be independent, gain knowledge, be able to recite the Koran, and be skilled at working until they get married" (Kuswanto
Interview, 2022). Heri sees that livestock manure that is just thrown away will be in vain if it is not processed properly, and becomes an organic fertilizer environmentally friendly and useful for plants. All students are directed in the process of making organic fertilizer which takes directly from cow dung, chicken and rotting plant residues. The involvement of students in the process of making compost is slowly training their ability to process waste into useful goods. The concept integrated system has so far been developed in order to process various unused used goods into something of value.

The arrangement of fish ponds, vegetable gardens, flower gardens that are arranged as attractively as possible attracts the attention of visitors to take selfies with the background view of the valley of the Pagergunung hamlet. The classic phenomenon faced by students today is that they are skilled in religious knowledge but are not economically independent, and vice versa. Therefore, all students from various economic, cultural, traditional and linguistic backgrounds are accommodated in this pesantren. Therefore, a tourist attraction in the form of the Lintang Songo smart farm and garden innovation born to optimize the land owned by the Islamic boarding school, train the independence of students in entrepreneurship and empower the surrounding community. Provincial level environment, food security award by President Susilo Bambang Yudhoyono on December 3, 2010, Pesantren Forest from Minister of Forestry. Social institutions, Bantul district government and related parties who support the pesantren program. Threat of a food crisis has slightly disturbed the pesantren residents, especially since the impact of the COVID-19 pandemic has not yet fully recovered. There was a stagnation in food production due to slowing economic activity and a decrease in the amount of rice and corn production. This phenomenon was created by the Lintang Songo Islamic Studies Center Islamic Boarding School, which actively grows rice and corn seeds. A number of teaching staff are also involved in several educational institutions to invite students to love planting. (Ichsan, 2019)

This movement to love planting is intensively carried out in a number of educational institutions in the Yogyakarta area as an effort to answer the problems of the food crisis that threatens the sustainability of people's lives. Gradually, the children began to like to plant both at school,
in their respective homes. The management gave examples of how to plant and explained the benefits of each plant such as eggplant, mushrooms, kale, corn and so on. (Maqin Interview, 2022). Various vegetable crops thrive on an area of five hectares belonging to the pesantren and the cool geographical conditions are directly adjacent to the valley. The cold hills make a number of plants thrive. The preservation of environmental ecosystems is well utilized by kiai, santri, and assisted by local communities in land management for long-term needs. (Interview with Rofiki, 2022)

The potential for agricultural and plantation areas belonging to Islamic boarding schools is quite large as food strength and security in order to improve the welfare of students and the surrounding community Lintang Songo Islamic Boarding School. Food needs are a fundamental aspect of the sustainability of students in Islamic boarding schools. Therefore, the potential of smart farm and garden is always increased to increase food barns and boost the pesantren's economic sector. (Soleh, 2017). Various kinds of fruit are available in this pesantren, starting from bananas, mangoes, papayas, oranges, kedondong, and guava. The goal is to make the students healthier by eating fruit and it is also free to pick anyone who comes to this cottage. A number of various fruits found in the pesantren area for free can be taken for anyone who visits the Lintang Songo Islamic boarding school. Therefore, if there are guests, both guardians of students and tourists visiting this pesantren, they can take various fruits as they please. (Hidayati, nd)

B. Connectivity Lintang Songo Islamic Boarding School

Popularized Smart Farm and Garden

Heri Kuswanto's communication network with a number of institutions is quite large, both regional and international. Starting from higher education institutions, government institutions, police institutions of the Republic of Indonesia, social institutions, religious institutions, political party institutions and Islamic boarding schools. This harmonious relationship continues to be maintained until now to develop smart farm and garden and bring in experts from various fields directly to educate about the concept of agriculture and plantations. (Hidayat Interview, 2022)
Higher education institutions such as Gajah Mada University, Yogyakarta State University, Sunan Kalijaga State Islamic University Yogyakarta, Nahdatul Ulama University Yogyakarta. Government institutions such as members of the DPRD Bantul Regency, Bantul Regency Government, the Department of Agriculture, Food, Maritime Affairs and Fisheries of Bantul Regency. Police institutions starting from the National Police Headquarters of the Republic of Indonesia Police Headquarters, the Regional Police of the Yogyakarta Special Region Regional Police, the Bantul Resort Police, and the Piyungan Police Sector Police. (Rokhim and Karim, 2013). Heri Kuswanto is often invited by the faculty of agriculture and animal husbandry at Gajah Mada University to preach. Through this activity, the deans and the rector told the person behind Heri Kuswanto who owns an agribusiness-based pesantren. The dean and rectorate told their students that there are Islamic boarding schools that have a vision and mission to train students’ independence in entrepreneurship.

The Indonesian National Army Air Force Yogyakarta Air Force also invited Heri to give a sermon at the TNI AU base mosque. Even though they have to pass the screening test and national insight. It was passed easily and then delivered his da’wah in front of tens to hundreds of soldiers. Smart farm and garden innovations are becoming increasingly popular through the da’wah movement through mosques without having to tell Heri on the pulpit during the sermon. The congregation found out for themselves the existence of the Lintang Songo Islamic boarding school and the ideas it came up with. (Kuswanto Interview, 2022). The Air Force also told its soldiers that the Lintang Songo Islamic boarding school has a smart farm and garden innovation. In this case, Rogers (in Hanafi) explained that the interpersonal communication used by Heri Kuswanto to the public to introduce smart farms and gardens was actually quite effective. Islamic Boarding School were like.

Songo Comparing or learning the concept of agriculture, most pesantren are outside the direction of Nahdatul Ulama’ and even those who are considered Wahhabis also visit the Lintang Songo Islamic boarding school. Pastors and church youth do not miss a trip for comparative studies. Heri Kuswanto received visits well and was even invited to occasionally visit agricultural land owned by the pesantren.
Institutional relations have been maintained until now in order to collaborate in developing smart farm and garden innovations. Motivating the economic sector of the Lintang Songo Islamic boarding school, which previously only relied on student fees to meet food needs. This is in line with Hanafi’s opinion that one of the ways to spread innovation is to communicate ideas through interpersonal communication. (Hanafi, 2009)

The most effective technique for introducing smart farm and garden innovation is from tourists outside the Bantul area who visit the Lintang Songo Islamic Boarding School. Next, he told his friends and relatives in the village that there was a unique pesantren that applied the concept of entrepreneurship education. This word of mouth story was finally known to many people little by little so that foreign tourists flocked to see more deeply about the concept of the Lintang Songo Islamic Boarding School. Findings in the field also show that Heri Kuswanto as an innovator also uses social media such as WhatsApp Group, Instagram, Twitter, and Youtube. There is no need to promote innovation, tourist visits both domestically and abroad are always busy, whether they want to learn the concept of agriculture, feel the life of a boarding school that is in direct contact with the local community or take selfies with various plants that thrive on an area of about 5 hectares. (Pratama et al., 2022)

Popularizing smart farm and garden innovation through social media channels in the current technological era is one of the alternative choices in the midst of the increasing use of technology media. People simply do a search on YouTube through the Lintang Songo Islamic Boarding School account. A number of innovation content in agriculture, plantations are well packaged, assisted by students and the local community. The cheapness and ease of browsing smart farms and gardens encourages the public to actively participate in the comments section of the pesantren account. (Muljono & Wibowo, Cahyono Tri, 2021). This means that the smart farm and garden innovation of the Lintang Songo Islamic boarding school has received various supports from a number of parties and relevant stakeholders. This includes receiving high appreciation from the Bantul Regency Government. The communication flow described previously will have an impact on the decision-making process regarding the innovations carried out. Findings
in the field that, at the beginning of the smart farm and garden innovation trial, it didn’t run smoothly, it even failed. (Ono/Wiradesa, 2021)

Luckily, smart farm and garden were quickly well received, especially internally at the Lintang Songo Islamic Boarding School. Various factors were found to cause someone to accept or reject a smart farm and garden innovation. This idea has a positive impact on the concept of agriculture on land owned by the pesantren and the surrounding community. Learning the concept of agriculture to the Lintang Songo Islamic Boarding School becomes a role model for developing a number of community plants. (Sidik, 2007). Collaborative Islamic boarding schools by establishing collaboration between institutions, especially with the Faculty of Agriculture, Faculty of Forestry and Faculty of Animal Husbandry, Universitas Gajah Mada are intensively carried out to date. The need to bring in experts directly to educate and guide students and the community on how to farm, and manage plants and cultivate various fruits and vegetables. This ability in farming and cultivating agriculture will be a provision after graduating from pesantren and living in the community.

Referring to Ansorudin’s opinion about the cause of the public’s willingness to accept ideas and engage in innovation activities. Among them are the benefits of smart farms and gardens, which are directly felt by the impact, both materially and non-materially. Moreover, innovation in agriculture and plantations is a daily activity for the people of Pagergunung in an effort to fulfill food, making innovation easier to practice. It just needs to be accompanied by a number of experts. (Sidik, 2007). This smart farm and garden innovation also does not conflict with the values and norms that exist in the community and is considered suitable to be developed in the area of the community around the pesantren. In turn, this idea in the agribusiness sector has worked well for many years in the local community of Pagergunung, Sitimulyo Village, Piyungan District, Bantul Regency. Ongoing assistance from several academics and practitioners in agriculture has made smart farms and gardens more productive. (Sidik, 2007)

Heri Kuswanto’s close relationship with a number of groups has become one of the keys to the success of smart farms and gardens and is even able to evolve with the challenges of the times and the effects of
globalization. getting stronger. The success of this innovation is able to influence the decision making of a number of students and the community to participate in sustainable activities. The involvement of a number of parties both in an effort to directly support or assist so that they are able to survive is the key to the success of this innovation. (Supharman, Yuddy Meiyudha, Makhmudi Maspur Supharman, Yuddy Meiyudha, Makhmudi Maspur, 2020)

Siti Hidayati as well as the head of the farmer group in Pagergunung Hamlet often invites the community to local people cultivate crops on boarding school land. Active community participation in the agricultural and plantation sectors to learn to farm actively and productively is carried out. Heri Kuswanto also often calls and brings experts in agriculture and plantations to teach people good farming. (Hidayati Interview, 2022). Regular meetings with the people of Pagergunung Hamlet are held at least once a week by the Lintang Songo Islamic boarding school led by Siti Hidayati as the head of the farmer group. This is to improve skills in how to cultivate agriculture, prepare plant seeds, make compost and recycle plants into something of value. Therefore, occasionally experts in agriculture from Gajah Mada University are also brought in to guide the community about the concept of agriculture. (Kuswanto Interview, 2022)

The presence of these experts makes students and the community gain insight into agriculture and plantations. This opportunity also invites the local community to tractor rice fields and make embankments. After working the land in the fields, they are given money by the pesantren. This also creates an agribusiness sector-based economy managed by Islamic boarding schools. Providing benefits and employment opportunities for the community is one of the roles of Islamic boarding schools in an effort to restore the community's economy. (Rofiki Interview, 2022). Productivity of smart farms and gardens on land owned by Islamic boarding schools encourages the level of visits by both local and foreign tourists. This is also supported by access to information on social media such as Instagram, Twitter and Youtube to produce content about farming activities of various vegetables and flower cultivation, both from within the country and abroad. In turn, a number of guests come to the Lintang Songo Islamic Boarding School almost every week to learn the
concept of agriculture and plantations. (Maqin Interview, 2022)

Foreign tourists visit, for example, the United States, Japan, China, the Netherlands, Germany, Australia, France, Egypt, Sri Lanka, India, Bangladesh, Laos, Philippines, Thailand and East Leste. The visit was either an effort to stay in touch, learn agricultural concepts, comparative studies or experience life in a boarding school environment (live in). The arrival of guests from a number of countries is the fruit of the achievements of Islamic boarding schools in realizing food security. (Heri Interview, 2022). The involvement of guardians of students scattered in various areas in Indonesia in an effort to tell the success of smart farms and gardens should not be ignored. The presence of guardians of students from Aceh, Tapanuli, Medan, Padang, Palembang, Lampung, Banten, Jakarta, Bandung, Subang, Ciamis, Pemalang, Ngawi, Pacitan, Probolinggo, Lumajang, Banjarmasin, Kupang, Lombok, Ambon, Pasuruan, and Situbondo. This network of guardian-santri bonds also plays an important role in efforts to introduce smart farms and gardens to the wider community. (Anggraini, 2021)

The relationship between guardian-santri bonds also tells about the existence of the Lintang Songo Islamic boarding school and the existence of smart farm and garden innovations to their relatives. Through interpersonal communication between guardians of students, the boarding school does not need to bother making brochures to disseminate information about activities in Islamic boarding schools. "The network of guardians of students that we care for and we hope to have good communication." (Kuswanto, nd)

CONCLUSION

Lintang Songo smart farm and garden creates new opportunities for economic access and contributes to the world of agriculture and plantations, especially in the local community, Dusun Pagergunung. The form of this innovation is in the form of plant cultivation in gardens and agricultural land that is integrated in an integrated manner. A number of business results have been exported to various regions in the Special Region of Yogyakarta, DIY. This also has a positive impact on the financial fulfillment of Islamic boarding schools to supply the food needs of students.
The impact of an innovation provides knowledge of the independence of students to have provisions after boarding. The opening of aspects of the skills of each student who is not only good at religious studies but is economically independent is practiced at the Lintang Songo Islamic boarding school. This will provide benefits for the students to channel their creativity into a number of business programs run by the pesantren. The use of social media such as Instagram, WhatsApp Groups, Twitter, and Youtube takes an important part in efforts to popularize smart farm and garden innovations to the wider community. Communication networks for several elements of universities, government institutions, police institutions, religious institutions contribute to collaborating in the agricultural and plantation sectors. In turn, the Lintang Songo Islamic boarding school is strong in food security and efforts to supply the food needs of students can be met properly.

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