



University of Jember
Faculty of Teacher Training and Education



PROCEEDINGS

3rd ICEGE 2020

The Third International Conference on Environmental Geography
and Geography Education

September 12th - 13th, 2020

at Faculty of Teacher Training and Education, University of Jember

PAPER • OPEN ACCESS

Preface

To cite this article: 2021 *IOP Conf. Ser.: Earth Environ. Sci.* **747** 011001

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The Electrochemical Society

Advancing solid state & electrochemical science & technology

The ECS is seeking candidates to serve as the
Founding Editor-in-Chief (EIC) of ECS Sensors Plus,
a journal in the process of being launched in 2021

The goal of ECS Sensors Plus, as a one-stop shop journal for sensors, is to advance the fundamental science and understanding of sensors and detection technologies for efficient monitoring and control of industrial processes and the environment, and improving quality of life and human health.

Nomination submission begins: May 18, 2021



Nominate now!

The Third International Conference on Environmental Geography and Geography Education (ICEGE) 2020

Sumardi

Editor in Chief of International Conference on Environmental Geography and Geography Education 2020

E-mail: sumardi.fkip@unej.ac.id

We would like to express our gratitude to all participants joining “The International Conference on Environmental Geography and Geography Education” (ICEGE). The 3rd International conference held by the Department of Social Science Education held by FKIP-University of Jember on 12-13 September 2020. The participants of this ICEGE 2020 are research students, academicians and researchers, scholars, scientist, teachers and practitioners from many countries.

Due to Covid-19, this conference was held in dual-mode, namely online and face to face. For those invited speakers from abroad who have travel restrictions presented their research topics through zoom cloud meeting. Likewise, participants who stay outside Jember city joined the conference virtually. Meanwhile, participants from within Jember city joined conference in person by complying the Covid-19 protocol.

Two hundred forty-eight participants attended this conference. The number of submitted papers were 219 and papers sent to the reviewers were 198. Two reviewers reviewed one paper. Each reviewer reviewed maximum 8 papers. Based on reviewer recommendations, finally the number of accepted papers is 130. Thus, the acceptance rate is 59,4 %.

In the plenary season, each invited speaker presented their presentations for 1 hour and 15 minutes for Q/A session. In the parallel session, each participant made the presentation for maximum 15 minutes and 5 minutes for Q/A session. The technology used in the parallel session is zoom cloud meeting with 13 breakout rooms.

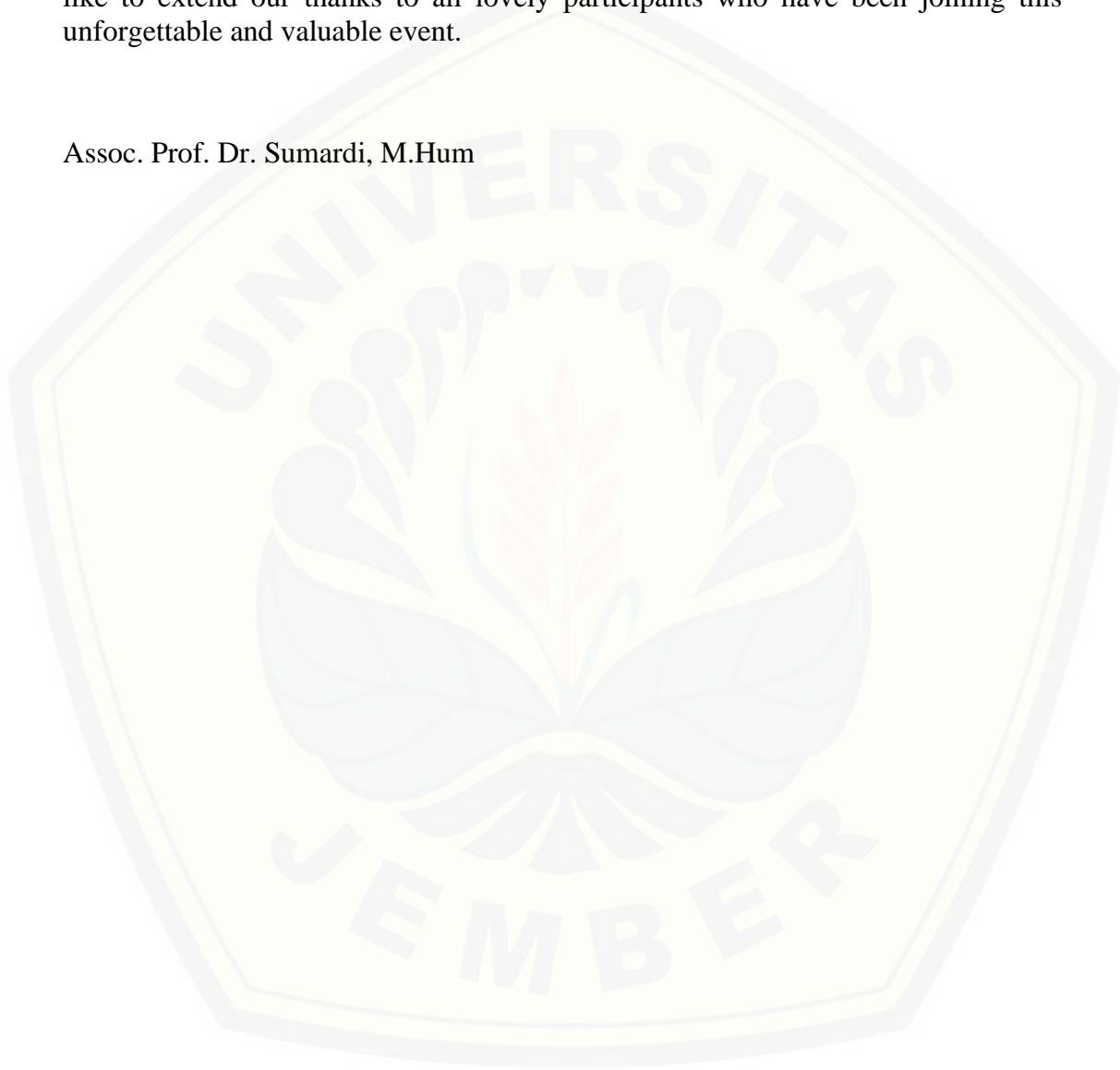
This conference becomes a dissemination forum for scientists working on theoretical and empirical research of environmental geography, transportation geography, geography education, social science and its application. This conference's mission is to become an annual international forum in the future, where civil society organization and representative research students, academics and researchers, scholars, scientists, teachers, and practitioners from all over the world could meet and exchange an idea to share and discuss about research. The aim of the second conference is to present and discuss the latest research that contributes to the new ontological, epistemological and axiological knowledge and



to a better understanding in the area as follows:(1) Environmental Geography; (2) Geography Information System and Remote Sensing; (3) Geomorphology; (4) Natural Disaster; (5) Economics; (6) History; (7) Education; (8) Humanities; (9) Social Sciences and (10) Global Science and Studies.

On behalf of the organizing committee, finally we gratefully acknowledge the support from the FKIP-University of Jember of this conference. We would also like to extend our thanks to all lovely participants who have been joining this unforgettable and valuable event.

Assoc. Prof. Dr. Sumardi, M.Hum



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The committees of the Third International Conference on Environmental Geography and Geography Education would like to express gratitude to all Committees for the volunteering support and contribution in the editing and reviewing process.

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Peer review statement

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Nomination submission begins: May 18, 2021



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Peer review statement

All papers published in this volume of IOP Conference Series: Earth and Environmental Science have been peer reviewed through processes administered by the Editors. Reviews were conducted by expert referees to the professional and scientific standards expected of a proceedings journal published by IOP Publishing.

- **Type of peer review:** Double-blind review. The authors and the reviewers do not know each other. The managing editor send the papers to the reviewers by hiding the authors' name and their affiliation.
- **Describe criteria used by Reviewers when accepting/declining papers. Was there the opportunity to resubmit articles after revisions?** There were 13 aspects of assessment for accepting/declining papers, i.e. Clarity of abstract, Significance of research, Sufficiency state of the art, Contribution to the field (novelty), Research objective, Appropriateness of the research method, Relevance and clarity of drawings, graphs and tables, Experimental/evidential support, Quality of data or findings, Discussion and conclusions, Direction for future research and recommendations, Clarity of English, Writing style (according to EES format). There are no opportunities to resubmit papers after rejection. For the revised papers regarding to reviewer comments, they should resubmit their papers.
- **Conference submission management system:**
<https://easychair.org/conferences/?conf=icege2020>
- **Number of submissions received:** 219
- **Number of submissions sent for review:** 198
- **Number of submissions accepted:** 130
- **Acceptance Rate (Number of Submissions Accepted / Number of Submissions Received X 100):** 59,4 %
- **Average number of reviewers per paper:** 2
- **Total number of reviewers involved:** 50
- **Any additional info on review process (ie. plagiarism check system):** We used TURNITIN software to check the plagiarism issue during the review process.



- **Contact person for queries:**
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Universitas Jember, Indonesia
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3rd International Conference on Environmental Geography and Geography Education, 12 September 2020, East Java, Indonesia

Accepted papers received: 12 April 2021

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Empowerment of Housewives in Antirogo Village, District of Jember Through Training on Production of Cassava Rengginang

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Abstract. Empowerment of housewives through training on production of cassava *rengginang* is an action designed to enhance their skills and creativity. This program was planned and aimed to create a productive activities that analysed its impact on their income. This research is a descriptive, qualitative study with a participatory action research (PAR) approach. The place of the research was determined using a purposive area method, and for the subject was determined using purposive sampling method. The subjects in this study were unemployed housewives. The data were obtained by observation, interviews, training and documentation. This empowerment is carried out through five stages, namely to know, to understand, to plan, to action and to reflection. The advantages of these empowerment activities are; 1) ability of housewives to make *rengginang* from cassava; 2) independent businesses run by housewives; 3) ability to analyze the business of *rengginang* from cassava; 4) assistance for business activities of *rengginang* from cassava. However, to increase the sustainability of this activity, facilitation from the government is needed such as business capital, assistance so that it becomes a truly independent business.

1. Introduction

Indonesia is a developing country with the fourth largest population in the world. However, the number of poor citizen in Indonesia is still relatively high of 9.78% or 26.42 million people [1]. This was also triggered by the Covid-19 Pandemic which resulted in a decline in economic growth and a wave of layoffs, so the number of poor people increased by 1.28 million people from the number of poor people in 2019 which was only 25.14 million people. With this position, the percentage of poor people as of March 2020 also rose to 9.78 percent. Compared to March 2019, the increase reached 1.28 million people. The reality of poverty is a social problem facing Indonesia today. Therefore, poverty alleviation and equitable development are important for the government. One of the programs that can be carried out to reduce poverty is the development of villages or kelurahan as an integral part of national development. These activities can be prioritized for economic development by increasing people's living conditions. Efforts to improve the standard and quality of life of people in rural areas can be done by creating business opportunities, namely by empowering community groups through increasing skills in processing food products. One of the potential target groups to be empowered by their social and economic power is the group of housewives.

According to Annisa and Suharso, the indicator of the poor community are 1) they unable to meet basic consumption needs (clothing, food and shelter), 2) they cannot meet other basic needs (health, education, clean water sanitation and transportation), and 3) they do not have any insurance. Furthermore, due to the limited quality of human and natural resources, they have no jobs or sustainable livelihoods [2]. Based on these poverty indicators, there are also poor people in Jember Regency, especially in Antirogo Village, Summersari District, and Jember Regency. On the other hand, Antirogo Village also has potencies to be developed, such as natural resource and human resource. These



potencies include the extent of agricultural land, the existence of housing, and high productive human resource.

These potencies of Antirogo Village have not yet been developed in order to answer the economic problems of the community. There are still many poor families in Antirogo Village. Most of the male population becomes construction laborers and agricultural laborers, while many housewives live at home and only live from relying on income from their husbands. This condition makes poverty still high in the Antirogo Village. One of the potential agricultural products in antirogo and its surroundings is cassava. According to Dorabella, cassava can be manufactured into several traditional food products, one of which is *rengginang* from cassava [3]. Household scale *rengginang* from cassava has a high added value and is profitable. Thus, It is good to train them the production technology of *rengginang* from cassava and the business as well. Therefore, the series of empowerment is urgently programmed especially the training on production of *rengginang* from cassava and business skills.

Empowerment is a process that runs continuously in order to increase the ability and independence of the community to improve the standard of living with the basic assumption that every human being has the strength and potential to develop for the better. Fattah said that empowerment is an alternative program of developing the community [4]. At the present time, the paradigm of development programs has shifted so that people who initially become objects of development (top down) become subjects of development (bottom up). Communities are involved in determining various development activities, and managing development programs so that the role of the government shifts to become a facilitator, a source of funds, and a source of innovation in achieving program objectives. The involvement of community include planning, implementation, utilization and maintenance. They will foster a sense of trust in the government so that people are motivated to support development programs. In other words, development outcomes depend on community participation.[5]

Previous research studied by Alhamudin *et al.* which states that the empowerment was successfully conducted on training of food processing based on cassava. This program increase community welfare and open up new job opportunities [6]. Another study conducted by Topal A. shows that women's empowerment can increase the economic competitiveness of Saudi Arabia's economy with the aim of increasing economic integration abroad [7]. Research conducted by Renosori shows that empowerment of housewives and adolescents has increased diversification, increased motivation and creativity and improved family economic financial administration [8]. Harjawati's research on the empowerment of housewives through the modification of children's headscarves aims to improve the family's economy and runs well as planned, participants are very enthusiastic about participating in the training and with the given capital, housewives in Rocek Village, Citeureup Village, Pandeglang, Banten are able to open independent businesses [9]. Based on these previous research references, it is interesting for researchers to conduct research on how to implement empowerment of housewives through cassava *rengginang* processing training in the Antirogo Village and to know the impact of the training on their income rising.

2. Methods

The concept of empowerment in this study was implemented using *the participatory action research* (PAR) method. This research uses a descriptive qualitative approach. *Participatory action research* (PAR) is a type of research that prioritizes community participation or participation in the overall process. In general, the implementation of participatory action research (PAR) includes several stages including: to know, to understand, to plan, to action and to reflection. This stage can be seen from the following scheme:

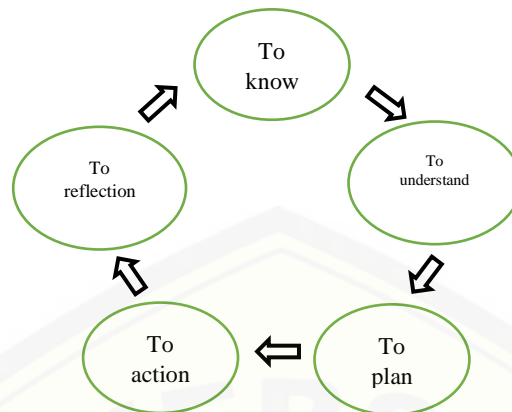


Figure 1. Diagram of research action

This research was conducted in Antirogo Village, Jember Regency in August 2020. The object of this study was 30 housewives of the residents of Antirogo Village (16-45 years old). The method used in determining the location of the study was *purposive area*, while the determination of research subject or participant was *purposive sampling*. Data collection was carried out by observation, interviews, and questionnaires (to obtain primary data) and documents (to obtain secondary data). The data obtained were analyzed descriptively.

3. Results and Discussion

3.1 Result

The study of empowering housewives is conducted by training of production of *rengginang* using cassava root. It was carried out in 5 stages, namely: to know, to understand, to plan, to action and to reflection.

a. To know

This is the initial activity of researchers before conducting research. Researchers were collecting information on the demographic of Antirogo village, such as location, population, culture, religion, education and economy. Refer to the Central Statistics Agency [10], Antirogo village is located at Summersari district of Jember regency, East Java Indonesia. It total population is 14,176, consisting of 6,050 and 8126 male and female residents respectively. The largest population in the Antirogo are moslem who work as farmers. Meanwhile, the ethnic groups found in antirogo villages are Javanese and Madurese. These two tribes have values that influence the life pattern of the Antirogo community. According to the latest data, the education’s profile of the citizen can be seen in the following table:

Table 1. Profile of education level of residence of Antirogo

No.	Level of Education	Total
1	Kindergarten	215 people
2	Elementry School	1.247 people
3	Junior High School	1.786 people
4	High School	1.412 people

Source: Central Statistics Agency 2020

b. To understand

Researchers conducted observation and interview in order to identify poverty problems. The issues are economic conditions, livelihoods, income received and daily activities carried out by housewives at Antirogo. Problems found in the diagnosing process included the low welfare of women because they are unemployed. This is due to limited skills and low levels of education. Based on observations, in the

Antirogo Village, many mothers are unemployed. According to the results of interviews conducted by researchers, the women of the Antirogo Village do not have permanent jobs, they will work if the rice planting season and rice harvest or tobacco season only, there are some women who work as household assistants but only 2 hours to 3 hours in the morning only, the rest they are unemployed. In addition, Antirogo Village has abundant natural resources that have never been utilized optimally, namely cassava as an agricultural products. Based on the data observed, the problems were formulated in order to determine the appropriate solution.

c. To plan

Researcher tries to make alternative solutions to problems. This action plan is adapted to the conditions of local resources. According to the agricultural potency such as cassava at Antirogo, the best program to solve it is empowering housewives through training on production of *rengginang* from cassava.

d. To action

Taking action in this research is carried out by training on: 1) production of *rengginang* from cassava; 2) feasibility study of business which includes analysis of cost, revenue, profit and the B/C ratio (benefit/cost ratio); 3) creating of a cassava *rengginang* business group in the Antirogo village; 4) assistance for business activities of *rengginang* cassava.

In taking action, the researchers had previously conducted a focus group discussion (FGD) which took place at the Antirogo village hall with 30 participants. Participants are Antirogo housewives who do not have a job that has been chosen by the village officials according to the criteria determined by the researcher. In this FGD activity, there are two stages of implementation, namely the presentation of the material by the researcher and a question and answer session (discussion). Based on the results of the FGD evaluation conducted by the researcher, from a total of 30 FGD participants, the researcher took 4 people who matched the criteria set by the researchers.

The training has been held on 10-14 August 2020 at 09.00 - 12.00 WIB. This training took place at Mrs Sri Sunarsih's house. It was attended by 30 housewives. The training was carried out with the stages of providing material, production of *rengginang* from cassava, discussion regarding the processing technology, and the next stage is self-practice to determine the competency of participants on producing *rengginang* from cassava. There are three grades of participant after the training program, namely grade 1 (21 participants who showed high skill improvement), grade 2 (5 participants with medium skill) and grade 3 (4 participant with low skill).

Training on feasibility study of the business is carried out by teaching or explaining regarding the techniques for calculating costs, revenues, profits and B / C ratio [9]. The next stage, each participant practice analyzing costs, income and benefits as well as the B / C ratio. The training was aimed to facilitate participants having competency of analysing the feasibility study of the business. Therefore the participants have more confident on initiating and running the business of production *rengginang* from cassava.

This business grouping is adjusted to the ability of participants after enrolling the training. Each group consisted best, good and medium skilled of participants. This grouping was aimed to make this business run effectively.

The assistance program is important to assure the sustainability of the business. That program include: 1) regular visitation to the production groups, and 2) periodic meeting and discussion to solve problems. The mentoring activity also aims to evaluate the extent of the success of the researchers' empowerment.

e. To reflection

In this stage, researchers evaluate all activities. This reflection is used to check whether the programs were run according to the plan effectively. This evaluation of this training was conducted by using an evaluation instrument that contains question list for each parameter, with clear alternative answers (strongly agree, agree, doubt, disagree and strongly disagree).

The items of evaluation were: 1) the timeliness of the implementation of empowerment according to the planned schedule, 2) the researcher was involved in the implementation of empowerment carried out in training, 3) the high participation of housewives on the empowerment program, 4) the ability of housewives to produce *rengginang* from cassava, 5) self-bussines run by housewives, 6) the ability to conduct analysis feasibility study of the bussines, 7) increasing family income and economic level in Antirogo Summersari Village, Jember.

3.2 Discussion

Poverty according to Gunartha and Utama [11] is a condition of people's powerlessness in fulfilling their life and livelihood needs due to multidimensional injustice in the political, economic, socio-cultural and technological fields. Poverty can be understood from several approaches, namely income, basic needs, income accessibility, human capabilities and the inequality. People who are said to be poor if their level or income is below the minimum eligibility level or are below the community in their community, unable to meet basic needs (such as food, clothing, shelter, education), lack of access to productive assets, social and physical infrastructure, information, market, and technology. Reduction the community poverty prgoram requires participation from the community itself and cooperation with institutions or government. Poverty alleviation programs can be through social assistance, community empowerment, economic business empowerment or other activities that can increase economic activity.

The empowerment of housewives is one way of overcoming poverty in the Antirogo village. The purpose of this empowerment is increasing their productivity improvement their economy level. This goal is in accordance with the theory expressed by Subhan which states that the purpose of implementing empowerment is basically to form individuals and communities to become independent. This independence includes independence to think, act and control what they do. Furthermore, it is necessary to explore what it actually means to be an independent society. Community independence is a condition experienced by society which is marked by the ability to think, decide and do something that is deemed appropriate in order to achieve solutions to problems faced by using resources and abilities consisting of cognitive, conative, psychomotor abilities, by mobilizing resources which is owned by the internal environment of the community, thus to be independent, it needs the support of capabilities in the form of human resources that are complete with cognitive, conative, psychomotor and affective conditions, and other resources that are physical-material in nature [12].

Karwati said that empowerment of women is very necessary because women are one of the components in society that have potential and can be involved in development. Women also have the same rights and obligations as men. However, in the field of education and economy, many women still do not have the ability to get job opportunities because of their limitations in cultivating their potential. Karwati also said that training is a process of learning activities between experiences to develop a person's behavior patterns in the field of knowledge, skills, or attitudes to achieve the expected standards. So thus empowering housewives through training is a good empowerment strategy to implement. With the knowledge, skills and attitudes that housewives have, they can improve their skills in an effort to meet the needs of life [13]. Related to training in empowerment Oktavian also said that training is a process of getting people to do something because it includes theoretical, practical and question-and-answer methods, in other words training makes housewives learn through practice (learning by doing) so that they are able to master the skills [14].

The success of empowerment activities requires the participation of all parties, which is meant here, namely researchers and housewives. With this, the researcher chose to use an action research approach (action research). Researchers in this study were directly involved in the research process from the start. In other words, researchers actively participate by participating in a whole series of training activities for housewives in the Antirogo Village, Summersari District, Jember Regency through the processing of cassava *rengginang*. Training in empowerment is carried out in five stages, starting from the identification of the problem, planning for action, implementing actions and evaluating actions. The stages in action research are in accordance with the theory expressed by Rahmat dan Mirnawati that the action research approach to research implementation is carried out in several cycles which include: to

know (to know) , to understand (to understand), to plan (to plan), to action (to launch action) and to reflection (to reflection), namely researchers evaluate and monitor empowerment activities so that they go according to plan.

4. Conclusion

Based on the research results, empowerment of housewives through cassava rengginang processing in Antirogo Village, Jember Regency can run smoothly and successfully according to the steps that have been set. This empowerment is able to provide additional skills and creativity knowledge to housewives. Besides that, the implementation of this training is also able to provide alternative activities for women in utilizing their spare time. This program are beneficial for housewives to : 1) make rengginang cassava; 2) create their own businesses; 3) conduct an feasibility study; 4) finally raise the income of the family in Antirogo Summersari Village, Jember.

Seeing the condition of the poor in the Antirogo Village, especially the housewives who do not have productive activities, the Antirogo Village apparatus must further increase the provision of assistance in the form of trainings to increase community knowledge and skills. Because with these trainings, the community can better understand the natural resources and human resources they have that they can use. And the efforts that housewives do after receiving this training still require on going training assistance to monitor and evaluate the empowerment program that has been implemented, so that it becomes a sustainable effort that can later reduce poverty in Antirogo Village.

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