

The Relationship Between The Capacity Of Farmers, Agricultural Extension Workers And Tobacco Farmland Conservation

(The Rural Area Of The Eastern Slopes At Mount Sumbing, Central Java)

Juhadi¹, Eva Banowati¹, Najibburrohman²

¹Faculty of Social Sciences, Universitas Negeri Semarang, Indonesia

²Education Practitioner, Senior High School Temanggung, Indonesia

Corresponding email: juhadigeo@mail.unnes.ac.id

Abstract— The purpose of this research is to understand the relationship between the capacity of farmers, agricultural extension workers and conservation of tobacco farmland on the slopes of Mount Sumbing. Research population is tobacco farmers (5690 families), agriculture extension workers (458 workers); with the vast tobacco farmlands of 523.6 hectares. Sample is taken in stratified random sampling consisting of 109 farmers and 30 agricultural extension workers. Research variable includes the level of knowledge of tobacco farmers, perception and competence of agricultural extension workers, and implementation of farmland conservation by tobacco farmers. Data were collected by questionnaire, interviews and observation. Data analysis used cross-tabulation, quantitative descriptive, and chi square statistical analysis. The results of the study show that the role of agricultural extension officers in providing counseling on efforts to conserve tobacco farming land is still low. The level of knowledge of tobacco farmers is good to fair, but in terms of the implementation of conservation of agricultural land, it is fair to less.

Keywords— *agricultural; extension workers; farmland; conservation; tobacco farmers capacity*

I. INTRODUCTION

The history of agricultural development in Indonesia experienced ups and downs. This is because farmers in Indonesia are still traditional ones, so that the agricultural product cannot always create food security and sovereignty in the country [1]. The reliable agricultural sector in the face of all changes and challenges can be realized by reforming various aspects, one of which is the quality of human resources. Farmers as the main human source of agriculture, still have an unfavorable position so far, and the quality of Indonesian farmers is still low.

Various efforts have been done by related parties including the government to improve the quality of farmers' resources through agricultural counseling, but the results have not been as expected. [2],[3] The problem of food is still a problem that often arises, both for the problem of product quality and the availability or stock of food, we are still importing. In addition, there is also the

problem of damage to agricultural land due to the uncontrolled erosion process [4],[5].

Based on the background of the problem, the researchers are interested in understanding the relationship between the capacity of farmers, agricultural extension workers and conservation efforts of agricultural land. The study was carried out on tobacco farming land on the slopes of the eastern Sumbing Mountain, Central Java Province.

II. AGRICULTURAL EXTENSION WORKERS' COMPETENCE

A. The competence workers

The competence of agricultural extension workers is measured by referring to the Value of Work Achievement (Regulation of The Minister of Agriculture numbered 91/Permentan/OT.140/9/2013). The indicator used as a benchmark includes the preparation of counseling, the implementation of counseling and evaluation of extension reporting [11]. Based on the study that has been conducted on the respondent of agricultural extension workers, the data of their competence are shown in Table I.

TABLE I. LEVEL OF COMPETENCE OF AGRICULTURAL EXTENSION WORKERS

Value	Criteria	Frequency	Percentage (%)
76-100	Good	6	20
51-75	Fair	11	37
≤50	Poor	13	43
Total		30	100

Source: primary data, 2017.

Table 1 shows that the level of competency of agricultural extension workers is not optimal since the number of agricultural extension workers who have adequate competence is only around 20% [6]. The low competence is partly due to the fact that some agricultural extension workers are voluntary (non-permanent workers). Non-permanent agricultural extension workers

only play a role as partners of state agricultural extension workers, so that their involvement is limited to conduct counseling

about the goals, functions, benefits, and the methods of conservation as well as farmers' rights and obligations in accordance with Law Number 37 of 2014 concerning soil and water conservation. The results of the study are shown in Table II.

B. Tobacco Farmers' Level of Knowledge of Agricultural Land Conservation

The level of knowledge of tobacco farmers on land conservation is measured in terms of their understanding

TABLE II. TOBACCO FARMERS' LEVEL OF KNOWLEDGE BELONGING TO AGRICULTURAL LAND CONSERVATION

Value	Criteria	Kemloko		Jetis		Tanggulanom		Frequency Total	Percentage (%)
		F	%	F	%	F	%		
$X \geq 13,33$	Very Good	20	53	19	56	17	46	56	51
$13,33 > X \geq 10$	Good	17	44	12	35	16	43	45	42
$10 > X \geq 6,67$	Fair	1	3	3	9	3	8	7	6
$X < 6,67$	Less	0	0	0	0	1	3	1	1
Total		38	100	34	100	37	100	109	100

Source: primary data, 2017.

In general, the level of knowledge of tobacco farmers on the conservation of the land of Kemloko Village, Jetis Village and Tanggulanom Village is very good. The factors that influence the level of knowledge of tobacco farmers in the conservation of agricultural land are: (1) the level of formal education. Most farmers have formal education from elementary to junior high school and some have higher education, (2) the experience of tobacco farming obtained through generations, (3) counseling and training. Some farmers claimed to have attended counseling and training both held by extension centers

and by private parties, and (4) information from social media such as agricultural magazines, newspapers, posters, radio and television broadcasts.

III. IMPLEMENTATION OF TOBACCO FARMING CONSERVATION IN THE RESEARCH AREA

Variables in the implementation of tobacco farmland conservation are focused on vegetative, mechanical and chemical conservation. The results of the study are shown in Table III.

TABLE III. IMPLEMENTATION OF TOBACCO FARMLAND CONSERVATION EFFORTS

Value	Criteria	Kemloko		Jetis		Tanggulanom		Frequency Total	Percentage (%)
		F	%	F	%	F	%		
29,4 - 44	Good	10	26	0	0	2	5	12	11
14,7 - 29,3	Fair	25	66	9	26	27	73	61	56
0 - 14,6	Poor	3	8	25	74	8	21	36	33
Total		38	100	34	100	37	100	109	100

Source: primary data, 2017.

The implementation of land conservation in the research area in general is still in the level of fair tends to poor. Factors affecting the implementation of land conservation are: (1) limited capital and labor, (2) inherited land ownership status that is difficult to accept change, (3) lack of support from the government. Land conservation carried out is still partial, uneven and simple [7]; [8]. The implementation of the conservation of tobacco farming land per parameter is presented in Figure 1.

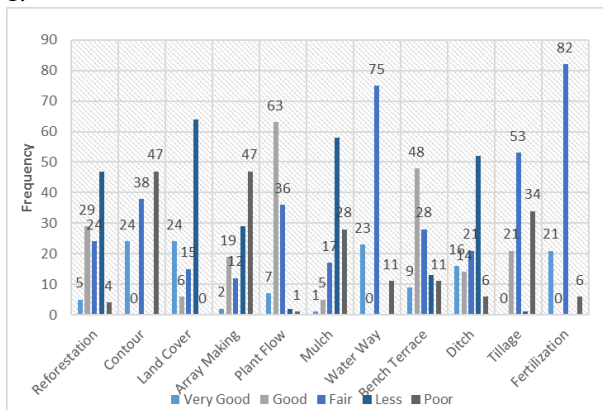


Fig. 1. Implementation of Tobacco Farmland Conservation Efforts per Parameter (Source: primary data, 2017)

IV. THE RELATIONSHIP BETWEEN THE LEVEL OF KNOWLEDGE OF TOBACCO FARMERS AND THE IMPLEMENTATION OF AGRICULTURAL LAND CONSERVATION

Relationship analysis can be identified by conducting statistical analysis of crosstabs, and chi square test analysis. This shows a significance value of $0.216 > 0.05$ by using SPSS 16.00 software. The results obtained are shown in Figure 2.

The results of the chi square test showed a significance value of $0.216 > 0.05$, so it can be seen that there is a relationship between the level of knowledge of farmers about land conservation efforts with the implementation of land conservation by farmers.

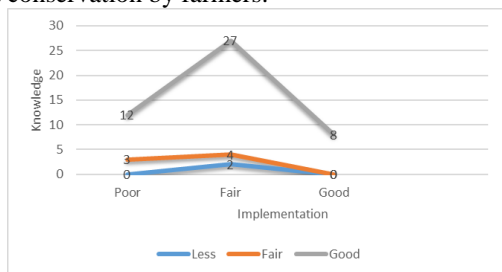


Fig. 2. Relationship between Farmers' Level of Knowledge of Agricultural Land Conservation Efforts and The Implementation of Agricultural Land Conservation (Source: primary data, 2017).

Thus, the higher the farmers' knowledge about land conservation efforts the better the implementation of land conservation by farmers and vice versa [9], [10]. The lower the farmers' knowledge about land conservation efforts, the worse the implementation of agricultural land conservation by farmers

V. CONCLUSION

From the measurement of the four research variables, it can be seen that the role of the agricultural extension workers in providing counseling about efforts to conserve tobacco farming land is still relatively low. This is due to the low level of competency of the agricultural extension workers and also farmers' perceptions of the agricultural extension workers. Whereas in terms of knowledge and implementation, it is classified as good and fair. Tobacco farmers generally gain knowledge about land conservation efforts from experiences passed down through generations. Meanwhile, the implementation of conservation efforts in agricultural land is considered fair to less because generally, conservation of tobacco farming land is still done partially with simple technology.

Factors that influence the non-optimal role of agricultural extension workers in the study area are: (1) the number of extension workers with the size of the target area is not comparable, (2) farmers' participation in agricultural extension is low so that the quality of agricultural extension services are low, and (3) the availability of funds is very limited. Based on these findings, the participation of all parties is needed. Farmers as stakeholders; agricultural extension workers as the forefront in improving farmers' knowledge, skills and attitudes; and government as policy maker should synergize in order to maintain a planned and sustainable tobacco resource management function in accordance with conservation principles.

REFERENCES

- [1] Banowati, Eva. 2013. Geografi Pertanian. Yogyakarta: Ombak.
- [2] Setijorini, E. Ludivica., Sri Harjanti, Rospina Pepi. 2004. Peran Penyuluh Pertanian dalam Pembangunan Pertanian Kerakyatan. Laporan Penelitian Mandiri: Lembaga Penelitian Universitas Terbuka.
- [3] Anonim. 2013. Perlindungan Indikasi Geografis Tembakau Srintil Kabupaten Temanggung. Badan Perencanaan Daerah Kabupaten Temanggung: Peme-rintah Kabupaten Temanggung.
- [4] Djajadi, Mastur, Mardiyati. 2008. Teknik Konservasi Untuk Menekan Erosi Dan Penyakit Lincat Pada Lahan Tembakau Temanggung. Jurnal Littri; 14(3):101-106. Malang: Balai Penelitian Tanaman Tembakau dan Serat.
- [5] Arsyad, Sitanala. 2010. Konservasi Tanah dan Air. Bogor: Institut Pertanian Bogor press.
- [6] Anwas, Muhammad. 2011. Kompetensi Penyuluh Pertanian dalam Memberdayakan Petani. Jakarta. Jurnal Matematika, Sains dan Teknologi 12(1):46-55. Tangerang. Institut Pertanian Bogor.
- [7] Subagyono, Kasdi, Setiani Marwanto, Undang Kurnia. 2003. Teknik Konservasi Tanah Secara Vegetatif. Monograf Sumber Daya Tanah Indonesia. Balai Penelitian dan pengembangan Pertanian.
- [8] Juhadi. 2013. Dimensi Spasio Ekologikal Pemanfaatan Lahan Perbukitan-Pegunungan di Kecamatan Kokap, Girimulyo dan Pengasih Kabupaten Kulon-progo Daerah Istimewa Yogya-karta. Disertasi: Universitas Gajah Mada.
- [9] Mawardi, Muhjiddin. 2012. Rekeyasa Konservasi Tanah dan Air. Yogyakarta: Bursa Ilmu.
- [10] Juhadi. 2013. Sistem Pertanian Kebun Campuran Berkelanjutan Berbasis Teknologi Tradisional (Studi Kasus Pada Masyarakat Krui Lampung Barat). Jurnal Forum Ilmu Sosial 40(2):123-140. Semarang. Universitas Negeri Semarang.
- [11] Sihana. 2003. Efektivitas Penyuluh Pertanian Lapangan Di Dinas Pertanian Kabupaten Jepara. Thesis: Universitas Diponegoro.