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Participatory Communication among Farmers in Rice Integrated Crop Management- Farmer Field School (Ricm-Ffs), East Nusa Tenggara Province, Indonesia

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***Abstract* – The study aimed to analyze how participatory communication in the Rice Integrated Crop Management–Farmer Field School (RICM-FFS) in East Nusa Tenggara (ENT) Province. Specifically, it sought to: determine the types of participatory communication activities undertaken by the rice farmers during RICM-FFS in ENT Province. This study focused mainly on the Rice ICM-FFS in East Nusa Tenggara Province using Survey Research Design. An open-ended questionnaire was used to gather data. Meanwhile, Key Informant Interviews (KII) and Focus Group Discussions (FGD) were used to gather qualitative data. Quantitative and qualitative methods were employed to analyze data. Chi-square test and Pearson correlation were used to determine relationships between variables. Kupang District in East Nusa Tenggara Province served as the study site because it had a high potential for rice production in the district. Two RICM-FFS groups in Noelbaki village, and one group in Mata Air village, Central Kupang Sub District were chosen to represent the Kupang District. The study was done from January to March 2016. Profile of farmers of RICM-FFS in East Nusa Tenggara Province uncovered the socio demographic characteristics, farm-related profile, and sources of information about rice. Technical competency of farmer was measured through the farmers' knowledge and attitude toward RICM-FFS. Participatory communication was depicted through their participation in every stage of RICM-FFS namely Inception stage, Class organizing, Applying adult education methods, Group dynamics, and Group meetings.**

***Keywords* – Participatory Communication, RICM-FFS.**

I. Introduction

Background and Rationale

Participatory communication is a transformative process of dialogue between people and groups, to make them aware about their own potential, and get involved in their own well-being (Singhal, 2003, p.2). Furthermore, Tufte (2009, p.17) explained that participatory communication allows people to be more empowered through information exchange, experiences, and ideas among themselves.

One of the participatory methods to disseminate new technology to farmer is the Farmer Field School. As Ravinder (2008, p.1) stated: "A Farmer Field School is a participatory approach to disseminate and fine tune the production technology in such a way that adoption rate becomes high. Fine-tuning of the production technology based on the location-specific conditions and resources available with the farmers enhances the adoption rate. FFS approach is a direct response to the needs of the farmers. Unlike other extension tools, FFS is a season long two-way communication between the farmers and the facilitator who may be an extension worker or researchers."

The Rice Integrated Crop Management-Farmer Field School (RICM-FFS) functions as: 1) a learning center of decision-making for farmers or farmer groups; 2) a place for exchange of information and field experience; and, 3) group management mentoring, therefore serving as a model for other regions. Through RICM-FFS, farmers and farmer groups make decisions on the basic technical and economic considerations in every stage of cultivation farming. Farmers apply the technology correctly so as to increase production and income (Indonesian Ministry of Agriculture, 2013, p.33).

Objectives of the Study

The study aimed to determine the types of participatory communication activities undertaken by the rice farmers during RICM-FFS in East Nusa Tenggara Province;

II. Review of Related Literature

Participatory Communication

Alcala (1990, p. 12) stated that participatory communication has a power to strengthen people, hence, allowing them to control a development program whether in the stages of planning, design, production, or diffusion is empowering people. Through participation, people will be able to consider the complexity of a development program; and that it is influenced by the cultural, social, and economic aspects of a society (Hornik in 1988; Rogers 1989 in Alcala, 1990, p. 9).

Ascoft and Masilela (in Alcala, 1990, p.9) had the same idea when they said: "Participation increases the effectiveness of development messages and the responsiveness of development strategies to local cultural realities." However, there is a gap between participatory communication as a key in rethinking communication in development projects and the operation of its implementation (in Alcala, 1990, p.33).

Types and Level of Participation

White (1994, p.17) mentioned about concept mapping by Deshler and Sock (1985) in conducting a critical review of development participation literature to sort out main concepts and their relationships. Meanwhile, Pretty (1995, p.1252) described seven types of participation as follows: 1) *Manipulative participation*. Participation is simply a pretense. People's representatives are on official boards but they are unelected and have no power, 2) *Passive participation.* People participate by being told what is going to happen or has already happened. The information being shared or told belongs only to external professionals, 3) *Participation by consultation*. People participate by being consulted or by answering questions while external people

listen. These external professionals define both problems and solutions, and may modify them in light of people's responses, 4) *Participation for material incentive*. People participate by contributing resources and material incentives. For instance, farmers provide the field and labor but they are not involved in experimentation or the process of learning, 5) *Functional participation*. Participation is seen by external agencies as a means to achieve project goals, especially at reduced costs. People may participate by forming groups or be involved in shared decision-making, but these actions tend to happen only after external agents have already made major decisions, 6) *Interactive participation*. People participate in joint analysis, development of action plans, and formation or strengthening of local institutions. Participation is seen as a right, not just a means to achieve project goals. As groups take control over local decisions and determine how available resources are used, they have a stake in maintaining structures or practices, 7) *Self-mobilization*. People participate by taking initiatives independent of external institutions to change systems. They develop contacts with external institutions for resources and technical advice they need, but they retain control over how resources are used.

Rice Integrated Crop Management-FFS in Indonesia

According to the RICM-FFS Technical Guideline in East Nusa Tenggara Province (2013, p.5-10), the procedure of RICM-FFS implementation can be explained through the following activities: 1) Inception activity (Initial meeting with the formal, informal leaders, objective formulation, schedule elaboration, field day planning), 2) Class Organizing, 3) Applying adult education methods, 4) Group dynamics, 5) Monitoring and Evaluation, 6) Final Report, and 7) Group meetings.

III. METHODOLOGY

Research Design

The survey research design was used because it suited the goals and objectives of the study. The study subsequently aimed to identify the types of participatory communication activities undertaken by rice farmers during RICM-FFS.

Locale and Time of the Study

This study was conducted in one district, namely Kupang District in East Nusa Tenggara (ENT) Province, Indonesia. Kupang District is one of the districts in East Nusa Tenggara Province that has a high potential for rice production. Two RICM-FFS groups in Noelbaki Village and one group in Mata Air Village, Central Kupang Sub District were chosen to represent the study site. The study was done from January to March 2016.

Respondents

A total of 108 farmers from three farmer groups, namely, Rindu Sejahtera and Usaha Bersama in Noelbaki Village, and Dahulu Rasa in Mata Air Village, Central Kupang Subdistrict, Kupang District, East Nusa Tenggara Province participated as respondents of the study. These farmers participated in RICM-FFS from 2011 to 2014. RICM-FFS was implemented in East Nusa Tenggara Province because of its potential in paddy production.

Sampling

Purposive sampling was used to choose Kupang District, Central Kupang Subdistrict. RICM-FFS has been implemented in 21 districts in East Nusa Tenggara Province since 2008. One of those districts is Kupang District. From the total planting area in East Nusa Tenggara Province, 18,246 hectares was in Kupang District. Total rice production was 60,469,02 tons (Kupang Regency in Figure, 2014, pp. 154-155). Kupang District has 21 sub districts, and one of the sub district is Central Kupang sub district. Out of the total planting area in Kupang District, 1,489 hectares was in Central Kupang Sub district with a total production of 6,239 tons (Central Kupang in Figure, 2014, p. 8).

For the key informant interviews (KII), people who had knowledge of and involvement in RICM-FFS in the area were chosen purposively as respondents of the study. The eight key informants were as follows: i) 2 extension agents, ii) 1 former extension agent who was the leader of the Crop System Division in Kupang District Agricultural Agency, iii) 2 village leaders, iv) 2 informal leaders, and v) 1 researcher from the East Nusa Tenggara Assessment Institute for Agricultural Technology (ENT-AIAT).

Research Instruments

Quantitative and qualitative methods for data gathering were used in this study. An interview schedule translated into Indonesian was used to gather data. The questions were open-ended. Meanwhile, discussion guides were prepared for the Key Informant Interviews (KII) and Focus Group Discussion. The discussion guides were also translated in Indonesian. The interview schedule was consisted of the questions about the participatory communication in every stage of RICM-FFS. FGD guide was designed with 11 questions. Data gathering through KII depended on the informant's availability. Respondents were interviewed either in their houses or during meetings in the group's meeting hall. Others were interviewed while they worked in the field. Three researchers and two extension workers from the Assessment Institute for Agricultural Technology in East Nusa Tenggara Province helped the researcher for this study. The FGD was conducted in the group's meeting hall.

Data Analyses

Quantitative and qualitative analysis were used in this study. Responses from the KII and the FGD were coded, analyzed, and grouped according to logical themes. Quantitative analysis was used to analyze types of participatory communication by using means, frequencies, and percentages. KII and FGD results were explained qualitatively and presented quantitatively through percentages. To identify the types of participatory communication of the respondents, farmers' reasons for participation in every stage of RICM-FFS were grouped according to similarities. After grouping, the responses were coded. Then, the code was used to classify the types of participatory communication based on the key words of each type as shown in Table 3.

In this study, open coding was employed. According to Bohm (in Flick et al., 2004, p. 271) open coding is an expanding procedure in the sense that considerable quantities of interpretative text can be added to a small

segment of an original text. To retain an overview, the investigator should continually write memos, sort, and weigh the results of the work.

IV. Results and Discussion

Types of Participatory Communication in RICM-FFS Stages

In this study, the types of participatory communication were anchored to the types of participation mentioned by Pretty (1995, p. 1252). Hence, the types of participatory communication were defined as follows: i) M*anipulative participatory communication*, ii) *Passive participatory communication, iii) Participatory communication by consultation*, iv) *Participatory communication for material incentive*, v) *Functional participatory communication*, vi) *Interactive participatory communication, and viii) Participatory communication for self-mobilization*

To identify the types of participatory communication of the respondents, farmers' reasons for participation in every stage of RICM-FFS were grouped into similarities. After grouping, the responses were coded. Then, the code was used to classify the types of participatory communication based on the key words of each type.

The types of participatory communication engaged in by the respondents in each stage of RICM-FFS is shown in Table 1. Four types of participatory communication were identified by respondents under the inception stage. The researcher then categorized these responses. Six out of 10 of all the respondents were classified as under *interactive participatory communication* in the inception stage. Meanwhile, 16% of the respondents were categorized as manipulative participatory communication. Respondents participated in the communication activities in inception stage because they could get a clear idea about RICM-FFS. During the FGD, farmers revealed they participated in the communication process because it was important for them to meet the formal and informal leaders since they discussed details of RICM-FFS for successful implementation. Meanwhile, the respondents who participated by manipulative participatory communication said during the FGD that they had no power to participate due to lack of experience, or were discouraged during the discussion process.

Four types of participatory communication of respondents under the class organizing stage were identified. Half (51%) of the respondents were categorized as *interactive participatory communication.* Meanwhile, 21% of the respondents were described under manipulative participatory communication. Based on FGD, they said that even though the RICM-FFS was an informal class, it was important to attend meetings because this was when they appoint class management. The class management serves as mediator among the facilitator, group management, and the participants of RICM-FFS. For instance, if they have a problem about pest attacking their rice plants, the class management will look for experts to give their recommendations/solution(s).

Meanwhile, three types of participatory communication were identified by respondents under the *applying adult education method stage.* Half (54%) of the respondents described their participation under *participatory communication for self-mobilization*. Meanwhile, 24% of the respondents described their participation under manipulative participatory communication.

This data shows that applying adult education stage was important for respondents to identify important topics to be discussed related to their specific needs. This made the respondents participate during the group discussion.

Farmers explained during the FGD that they participated in applying adult education method stage because they felt that they were able to determine the topic according to their needs. They also experienced participation in discussions.

The fourth stage is the group dynamics stage which include: 1) conducting games that can create intimacy and provide an experience for the participants in the forum appear before or in front of many people, and 2) do sports together both at the team or individual level, to create an atmosphere of togetherness and family.

All respondents did not participate in group dynamics. They never conducted any games or sports. They explained they did not have the time to conduct this activity. In addition, there was no one to serve as motivator for this activity.

Two types of participatory communication were identified by respondents under the group meetings stage. A third (65%) of the respondents described their participation as participatory communication for self-mobilization. Meanwhile 35% of the respondents described their participation under functional participatory communication.

The group dynamics stage, include: 1) group meeting with the participants, 2) field activity like land preparation, planting, fertilizing, Irrigation, pest and disease control, and harvesting.

FGD results revealed respondents participated through communication by self-mobilization because group meetings were important. In the group meetings, farmers discussed the progress of the FFS, especially about rice growing. They also discussed the needs and problems in order to find solutions. That is the reason why respondents participated very seriously in group meetings even though they were experienced rice farmers. The respondents were aware that the new technology was important for them to increase their rice production. On the other hand, the formal leader of the village said in the KII that respondents were very active in the discussion process in group meetings. They never stopped talking no time limit was given for them to talk.

Table 1. Types of participatory communication in RICM-FFS stages

Types of participatory communication	RICM-FFS Stages							
	Inception Stage		Class organizing		Adult Education		Group Meeting	
	Number	%	Number	%	Number	%	Number	%
Manipulative participatory communication	17	16	23	21	26	24		

Types of participatory communication	RICM-FFS Stages Inception Stage		Class organizing		Adult Education		Group Meeting	
	Number	%	Number	%	Number	%	Number	%
Functional participatory communication	25	23	30	28	24	22	38	35
Interactive participatory communication	66	61	55	51				
Participatory communication for self-mobilization					58	54	70	65
Total	108	100	108	100	108	100	108	100

V. Conclusions

From the 7 types of participatory communication, there are 3 types identified by respondents under the inception stage namely under manipulative participatory communication, functional participatory communication and interactive participatory communication. In class organizing stage, from the 7 types of participatory communication, there are 3 types identified by respondents under this stage, namely manipulative participatory communication, functional participatory communication and interactive participatory communication. In applying adult education method, from the 7 types of participatory communication, there are only 3 types identified by respondents under this stage namely manipulative participatory communication, functional participatory communication and participatory communication for self-mobilization. However, there is no type of participatory communication in group dynamic stage. While, in group meeting stage from the 7 types of participatory communication, there are only 2 types identified by respondents under this stage, namely functional participatory communication and participatory communication for self-mobilization.

Literature Cited

[1] ALCALA, P. (1990). Empowering Through Communication: Women's Experiences with Participatory Communication in the Development Process. A Manuscript Report. IDRC, Canada. Retrieved on October 20,

[2] INDONESIA MINISTRY OF AGRICULTURE, 2013. Techni--cal. Guidelines for implementation Farmer Field School of Rice and Maize, 2014. Indonesia: General Directorate of Food Crop. Ministry of Agriculture. Retrieve on November 9, 2015.

[3] PRETTY, J.N, 1995. Participatory Learning for Sustainable Agriculture. World Development, Vol. 23, No. 8, pp. 1247-1263, 1995. Copyright 0 1995 Elsevier Science Ltd. Printed in Great Britain. All tights reserved. 0305-750x/95 $9.50 + 0.00. Pergamon. Retrieve on August 15, 2015.

[4] RAVINDER SINGH SAINI, 2008. Guidelines for Conducting F--armers' Field School on Improved Package of Practices for Rice. Government of India. Ministry of Agriculture. Department of Agriculture and Cooperation. "National Food Security Mission". Krishi Bhawan, New Delhi. Retrieve on October 24, 2014.

[5] SINGHAL, A. KANTADEWI, 2003. Visual Voices in Participatory Communication. Communicator, Volume XXXVIII No. 2 June-December 2003. Retrieved on October 24, 2014.

[6] U. FLICKT, E. KARDORFF, I. STEINKE, 2004. A Companion to Qualitative Research Theoretical Coding. Bohm Andreas : Text Analysis in Grounded Theory (pp.270-275). London. Sage Publication. Retrieved on October 24, 2014.

[7] WHITE S.A, SADANANDAR NAIR K &, ASCROFT J., 1994. Participatory Communication. Working for Change and Development. Communication and Human Values. Sage Publication India Pvt Ltd. M-32 Greater Kailash Market I, New Delhi 110 048.

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