

AN ETHNOGRAPHY STUDY OF FARMERS' SOCIOEDUPRENEURSHIP IN TAPUT NORTH SUMATERA INDONESIA

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Abstract

The study figures out the context of the socio cultural of the farmers in Tapanuli Utara (TAPUT), North Sumatera Indonesia. As the background of the study was the condition of the farmers looked like worry people while finding and waiting for chemical fertilizer (CF) imported from abroad hopelessly. Why it happened was because of chemical fertilizer as the basic needs for rice and other plantations suddenly lost from the marketing of all over Indonesia, which is in fact, the farmers used to take it as their needs to fertilize their plants at the farm or field and even, though it is at the high price cost, the farmers ought to get it for their plants by owing some money from the bank or money creditor (for the poor ones). The people make it as a need to have, as a means of quantifying and qualifying the result of farming. In such a worry condition, the researchers think and find the best solution for the society by presenting a team to educate the society on the theme of entrepreneurship with a target 'Self-producing Liquid Organic Fertilizer (LOF) for self-use, it is named Socioedupreneurship. In this case, the role of the researchers besides to conduct a research, and also to educate and to give service in worship of christian so they can improve their belief in God. The problem of the study was; Why the society of Taput North Sumatera cannot find chemical fertilizer (CF) as the main fertilizer they used to use which makes them confused and disappointed?, and how can they overcome such a problem massively?. The focus of the research was that rice plantation can be quantifying and qualifying the harvest by using Liquid Organic Fertilizer (LOF) instead of Chemical Fertilizer (CF), and this is the first time happened in TAPUT since the last 7 decades. It is reasonable to mention that the research belongs to ethnography study because of the phenomenon stated above. The research method used was ethnomethodology for the purpose of indepth data gathering from the informants, besides indepth socio aproach interaction which includes in the method. Since the research used ethnomethodology to find the data, thus the findings of the research are transcribed in descriptive qualitative, of which data resources were gathered in verbal and nonverbal interaction from the informant or the subject of the study. As the result, 1) 98 % of the farmers used to take CF as the basic or main fertilizer for farming and the 2% was no response, they cannot find CF as the basic needs to fertilize the plants, and it has been done for 7 decades. 2) From the reasoning at the data display proved that, 90 % of the informants said that the lost of CF in

Indonesia marketing is because of the world war between Russian and Croatian which impacts directly to the world business especially CF importing. 3) as the novelty of the research, there is a best solution from the researchers for the farmers to overcome such a hidden/latent problem by educating the society of TAPUT which is majorly are farmers conducting entrepreneurship of Liquid Organic Fertilizer (LOF), to produce LOF using some easy getting organic materials that the elements can fertilize the land and make the plants grow up well and can multiply the harvest either the quantity or quality, as well. Finally, at the period of post harvesting, the society of TAPUT North Sumatera Indonesia 98 % said that they are happy or better to lose the CF and to have LOF instead, as the own or self creation of the farmers. In conclusion, from the worriness and disappointed of the society at the first experience loosing the CF as the basic needs of rice fields and other plantations in TAPUT North Sumatera, finally they are happy and satisfied after having the educative solution from the researchers. The reasonings of the happiness are: 1) The impact of the research can minimize the budget of fertilizer from IDR 1.800.00.000,- (price of CF) decreased to IDR 100.000,- (price of LOF) per hectare (saved up to IDR 1.000.000,-). 2) The quality and the quantity of the harvest as well, are improved simultaneously. 3) the nutrient of the land or farm is kept clinical from the heap of the former chemical fertilizer use.

Keywords: Ethnography study, Socioedupreneurship, Liquid Organic Fertilizer (LOF), Chemical Fertilizer (CF)

I.Introduction

TAPUT stands for Tapaili Utara which is located in North Sumatera province of Indonesia, it is one of regencies in North Sumatera with the capital city named Tarutung. The society of TAPUT is majorly farmers that are spread all around 15 subdistricts namely; Parmonangan, Adian Koting, Sipoholon, Tarutung, Siatas Barita, Pahae Julu, Pahae Jae, Purba Tua, Simangumban, Pangaribuan, Garoga, Sipahutar, Siborongborong, Pagaran, and Muara. The locus of the research is Sipoholo wich consists of 13 villages within the account of people is 24.156 persons. The 2 villages of the locus named Desa Hutaraja and Desa Sipahutar.

Rooting from the society's problem of TAPUT North Sumatera Indonesia which is majorly as farmers, they looked panic, depressed, and confused about their plantations growth without chemical fertilizer (CF) at the farm; rice plantation, vegetables, beans, and so forth, and it was happened starting from January 2022 or similar with twice period of harvesting. As a matter of fact, the two periods of harvesting in 2022 made them disappointed since the result of the two harvests were decreased from period to period. The harvest in May 2022 decreased 27 % from the former harvest when the CF was still used to fertilize the plantation, then the harvest in the next period namely in November 2022 decreased 38 % less than before. This condition made them being afraid to continue planting any plantations if there is no solution from the governor.

In December 2022, there is no any positive information about the upcoming CF from abroad imported to Indonesia. In such a prolong condition made them more hasitant and less confident to plant any of flantation in the farm. On the other hand, the Regent of Taput regency has a vision to make TAPUT as a city of Food Barn; it means that the society of TAPUT should able to produce varieties of harvest from the farming. In fact, there was a contradictive

context between Regent vision to the society's problem to overcome.

From the contradictive context stated above, in December 2022, the researchers tried to engage themself into the problem they encountered about, by offering a solution in the form of proposal delivered to the regent of Taput named Nixon Nababan, M.Si. In the proposal, the researchers asking the regent of TAPUT to hand in hand to help the society out of the problem they enounered about.

Fortanately, the regent of Taput responding the researchers'proposal positively and even he felt so happy as if he thought that he was visited by angels to overcome the problem of the society of TAPUT and related to his vision dealing with TAPUT regency. He directly agreed the proposal and signed it soon after he read it; which means that the researchers were permitted to start doing the program to solve the problem of the society, namely how to produce Liquid Organic Fertilizer (LOF) by the farmers themselves, after trained and educated by the team of researchers.

Regarding the regent response towards the proposal of the researchers, he supported and mediated the researchers in conducting LOF production all about the place, things to use or equipments, and the easy get organic materials to mix with materials resourcing from the rest of kitchen majorly such as; various rotten vegetables, various rotten fruits, rest of foods, grass mixed simultaneously with urine and pups of certain animals forinstance; cows, sheeps, goats, ducks, bufallows, rabbits, and the rest water from fish ponds at the farm.

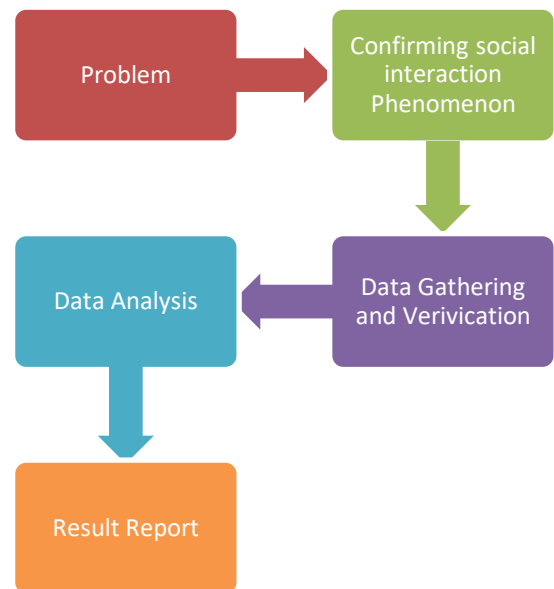
Dealing with one of the research questions, why is it important to produce and to implicate LOF? According to Rahman, Aditia (2023) that the use of LOF is not only refining nutrient of the soil quickly but also sticking and tide the root of plantations to the soil directly. Further

more, the findings of this study proved that the benefits of the LOF use are more than Rahman's ones, they are;

1. Improving nutrient of the soil and refining the rest impact of chemical substance.
2. Sticking the roots of the plants to the soil directly after spreading.
3. Qualifying and quantifying the result of farming (harvest).
4. Worthy saving budget for farmers since the price of CF is much more expensive than LOF price.
5. Bring the farmers out of problems and get multiplied harvest.

Method

The study used qualitative research within ethnomethodology approach. According to Yusuf (2018), ethnomethodology focusing on 2 social interaction areas namely; 1) conversation analysis and, 2) institutional setting, the method can be used in conducting ethnography model of qualitative research, provided it is dealing with phenomenon that happens in socio cultural context. In this case, the writers focusing on conversation analysis to find indepth data from the informants for the purpose of clarifying the phenomenon happened and producing a solution to overcome the problem encountered by the society. The writers designed the cycle of ethnomethodology syntax as below:



Phase-1

From the design above, the first syntax is Problem. At this phase as the preliminary study, all things to do is observing and confirming the real problem arises as the phenomenon that is happening around the society and it impacts the society's condition negatively, then it is labelled as the problem. In this case, the problem of the research was; Why the society of Taput North Sumatera cannot find chemical fertilizer as they used to be, and how can they overcome such a problem massively? The problem is similar with research question; it is the key point to answer as the final result of research by certain methodology, it is ethnomethodology approach of qualitative method.

Phase-2

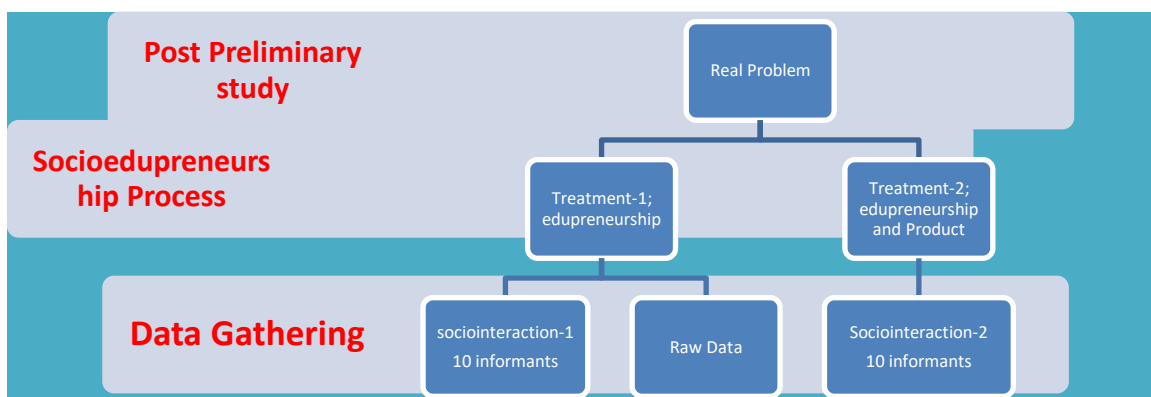
The second syntax is confirming social interaction phenomenon. At this phase, the real problem that has gained at the first phase should be confirmed towards the people around TAPUT regency, North Sumatera Indonesia. Regarding research question that has been conceptualized before confirming the real problem, then it was a pattern for the researchers to raise some questions to confirm the phenomenon that was happening. In confirming the real

problem towards the society, the researchers brought a set of written questions consisting of 20 questions in the form of open-essay questions. Then the set of questions was addressed to 10 senior families randomly around the TAPUT regency. As the reason why to the senior families randomly was because of the informants of the research was selected after preliminary study (after the first and second syntax). All the process of interaction in addressing the questions to the respondents was recorded, and the recording answer would be transcribed at the phase of data analysis, the last syntax of the research. The result of confirming social interaction phenomenon at this phase was, that the phenomenon arose was really happened, in which the society of TAPUT regency was trapped in a problem that made

them confused and disappointed. The trapping problem was that chemical fertilizer (CF) cannot be found recently in TAPUT regency and all around Indonesia as generally. In such a difficult condition for farmers made them complaining among themselves, and towards the government, namely the regent of TAPUT regency. The reason of unfinding the CF especially around TAPUT regency was caused by the world war between Russian and Croatian.

Phase-3

The third syntax is Data Gathering and Verivication. After confirming the real problem, then the researchers designed a framework and instrumentation of the study that aims to gather indepth data. The framework of the study is as the following:



The instrumentation of the study was in the form of a set of questions to gather field-note for the researchers to elicit the informants' open-answers. The set of the questions were implied to the informants three periods with an interlude in one month per each. Basically the three periods of the questions were the same content but they were randomized in numbers for each period of implication.

To guarantee the validity of the items, the researchers used content validity by consulting all the items to 3 validators who had been chosen before. The validators are those ones who are expert and mastering all

about farming, agricultural engineer, doctor of veterinary medicine (DVM), and farm professor. In the cycle of the work the three validators were gathered in a room by the researchers togetherly discussed all the items that had been given for them 1week befor timing to discuss. The meeting that conducted was in the form of small group discussion, and the frequence of discussion was running 7 times, a month before data gathering phase.

Phase-4

The forth syntax was Data Analysis. In analyzing data, firstly to do was raw data display; they were voice clip, video clip, field note, and picture documentation were

presented on a round big table near the laptops of the researchers. The informants responses in video and voice clips were transcribed to the text in descriptive qualitative, then clarified by some figure documentations, and field note. Since the research belongs to qualitative method using ethnomethodology approach, sociointeractional data was the main data of which the researchers were the key informants. Transcribing voice clips into textual concept was by switching on the video firstly from the beginning to the end, next rewinding the video stop by stop to take and to transcript the informants' locution, into sentence by sentence. When there is ambiguitic utterances, then they would be consulted by watching the video again to confirm the locutionary acts in the utterances to make sure the purpose of the locutors as the informants in expressing certain terminologies or dictions in their own local language (Bataknese), in this phase, careness and perlocutionary acts of the informants in responding the researchers' questions of elicitation dealing with CF and LOF, as well were important. The result of data transcription from voice clip, video clip, figure documentations was that one in written using descriptive qualitative to represent the sociointeraction about their complaining and disappointed of the lost chemical fertilizer (CF) as they used to take as the basic needs for their farming nutrition, and then simultaneously changed by using Liquid Organic Fertilizer (LOF) with multy benefits.

The data analysis showed that 98 % of the farmers used to take CF as the basic or main fertilizer for farming, 94 % agreed that CF has been used to fertilize the farm in the last 7 decades, 98 % agreed that the result of harvest decreased from time to time, 87 % agreed that the more time the more expensive the price of CF, and the unlogical fact proved that eventhough the more expensive, the more time the smaller the result of harvest, but the farmers cannot leave out from the use of CF since they have been using it as the basic or main fertilizer

in farming. It is reasonable for them to mention that they are confused and disappointed of losing CF from Indonesia marketing especially in TAPUT regency, they didnot know what similar things can fertilize their farming as to change FC as demands.

On the other hand, data analysis also proved that the case of CF absence for TAPUT regency's society brings multy benefits for them by LOF presence through the researchers' solution towards the research problem. The benefits they have gotten by using LOF to fertilize the farming are; 1) the result of harvest is improved from time to time, 2) LOF can qualifying and quantifying the harvest of farming, 3) LOF is able to improve nutrient of the soil and refining the rest impact of chemical substance, 4) sticking the roots of the plants to the soil directly after spreading, 5) Worthy saving budget for farmers since the price of CF is much more expensive than LOF price, 6) Bring the farmers out of problems and get multiplied harvest, 7) later or sooner, the soil becomes fertile by applying LOF.

In such a wide range of the benefits, either the society or the regent of TAPUT are certainly being satisfied and happy instead, in having edupreneurship from the researchers on how to self- process and to self-produce LOF for the own use in farming, as the solution against the farmers' problem. According to Tukidi et al. (2022) that to fertile the soil and to keep the nutrient of the soil, as well, there are many strategies to prepare and produce organic fertilizer as to avoid chemical recidu as the impact of using chemical fertilizer.

By data analysis proved that post research conduction 100 % of the respondents agreed that the farmers in TAPUT regency now are satisfied and happy about the presence of Liquid Organic Fertilizer (LOF) which can be produced by themselves, 100 % of the respondents agreed that the farmers' demands

disembogue or focusing on LOF instead of CF.

The high value of all about the research conduction according to the informants is the output of the treatment that has been mentored by the team of the researchers in preparing socioedunterpreneurship, it is LOF production by the farmers themselves, 100 % of the informants agreed that the farmers appreciate the efforts of researchers' team as a high value education to trained or mentor them how to self-process and self-produce LOF. From data analysis proved that almost all the farmers have received the huge benefits by using LOF as the main fertilizer for farming in TAPUT regency.

Phase-5

The last syntax was Result Report. As the last syntax of the research was reportig the research result in text form that resourcing from the raw data. Raw data of ethnography study was in the form of video clip, voice clip, pictures documentations. Further more, all the raw data were transcribed in descriptive qualitative to display indepth data includes speech act, locutionary acts from the informants.

Results and Discussion

The result of data transcription from voice clip, video clip, figure documentations was that one in transcribed report using descriptive qualitative to represent the sociointeraction about the problem they were encountering, it is unfinding chemical fertilizer (CF) as they used to take as the basic needs to fertilize their farming, and then simultaneously presenting Liquid Organic Fertilizer (LOF) with multy benefits, under researchers' training and educating.

Based on data analysis 98 % of the farmers used to take CF as the basic or main fertilizer for farming and the 2% was no response. They had no response because they are new comers in the village, it is the first farming period for them when the

research run. The account was taken from the the informants interaction while they were counting the number of total account of the farmers in the 2 villages as the locus of the research. The interaction was recorded due to ethnomethodology as the method of the research.

Then, 94 % of the informants agreed that CF has been used to fertilize the farm in the last 7 decades, all this number is the citizen who has been living there for a long time begun from their ancestors, they live there from generation to the next generation. The 6 % was those who have been living there for only 5, 4, 3, and 1 years, means that not enough even for 1 decade.

Further more, 98 % of the informants agreed that the result of harvest decreased from time to time. Timing distance from a harvest to the next one is usually 6 months for rice plantation, and 3-4 months for crops plantation. In this case, if the last harvest in Mei earned 50.000 KG rice, then in November, the next harvest the result can be decreased to 30.000 to 35.000 KG, and so forh. Those in the 2 % are the new comers in the villages, they have no response.

Moreover dealing with CF price, 87 % agreed that the more time the more expensive the price of CF, but eventhough the price is so expensive (IDR 900.000,- per sack), the farmers ought to get it, no matter how hard since it is the main need to fertilize their farming. In contrary, the price of LOF is much more saved, because the comparison between the use of CF and LOF is IDR 900.000,- versus IDR 50.000,- (for ½ hectare). The rest in 13 % are those who sometimes use CF to fertilize their farm, they can buy it when they have enough money to buy.

In fact, the unlogical findings proved that inspite of the more expensive it is, the more time the smaller the result of harvest, but the farmers are still prefer CF because they have used it as the main fertilizer for their plantation. It is reasonable for them to

mention that they are confused and disappointed of they cannot find CF all around Indonesia marketing especially in TAPUT regency, they didnot know what similar things can fertilize their farming as to change FC as demands.

As a matter of fact, dealing with the research questions; Why the society of Taput North Sumatera cannot find chemical fertilizer (CF) as the main fertilizer they used to use which makes them confused and disappointed?, and how can they overcome such a problem massively?. It is found that 90 % of farmers know that unfinding CF all around Indoneia marketing recently, especially in TAPUT regency, is caused by there is a world war between Russian and Croatian that impacts export and import business includes CF, all around the world. The way how to overcome it massively is proved by socioedupreneurship that trained and educated by the team of researchers, in which the farmers are trained and educated on how to self-process and to self-produce Liquid Organic Fertilizer (LOF) for own use.

On the other hand, data analysis also proved that the case of CF absence in TAPUT regency brings multy benefits for them by LOF presence through the researchers' solution towards the research problem. The benefits they have gotten by using LOF to fertilize the farming are; 1) the result of harvest is improved from time to time, 2) LOF can qualifying and quantifying the harvest of farming, 3) LOF

is able to improve nutrient of the soil and refining the rest impact of chemical substance, 4) sticking the roots of the plants to the soil directly after spreading, 5) Worthy saving budget for farmers since the price of CF is much more expensive than LOF price, 6) Bring the farmers out of problems and get multiplied harvest, 7) later or sooner, the soil becomes fertile by applying LOF, henceforth, there is no risk but multiplying the harvest qualitatively and quantitatively.

Proving multiple benefits, either the society or the regent of TAPUT mentioned that they get satisfied and happy instead, in having edupreneurship from the team of researchers on how to self- process and to self-produce LOF for the own use in farming, as the solution against the farmers' problem. According to Tukidi et al. (2022) that to fertile the soil and to keep the nutrient of the soil, as well, there are many strategies to prepare and produce organic fertilizer as to avoid chemical recidu as the impact of using chemical fertilizer. At the same tone the researchers trained and educated the farmers in 2 villages as the locus of the research. As the result, data proved that the farmers are succesfully being trained and educated to self-process and self-produce LOF with certain organic materials suggested by the team of researchers. The pictures below framing all the activities of the researchers to make socioedupreneurship for the society to overcome the problems they encountered.





Pic-1 Socioeducation for farmers

Data analysis proved that post research conduction 100 % of the respondents agreed that the farmers in TAPUT regency now are satisfied and happy about the presence of Liquid Organic Fertilizer (LOF) which can be produced by themselves, 100 % of the respondents agreed that the farmers' demands disembody or focusing on LOF instead of CF.

The high value of all about the research conduction according to the informants is

the output of the treatment (socioeducation) that has been mentored by the team of the researchers, it is LOF produced by the farmers themselves, 100 % of the informants agreed that the farmers appreciate the efforts of researchers' team as a high value education to train or educate them how to self-process and self-produce LOF. From data analysis proved that almost all the farmers have received many benefits by using LOF as the main fertilizer for farming in TAPUT regency.

Conclusions

The importance of the study is to overcome a massive phenomenal problem that occurred in TAPUT regency North Sumatera Indonesia. The phenomenal problem is; Why the society of Taput North Sumatera cannot find chemical fertilizer (CF) as the main fertilizer they used to use which makes them confused and disappointed?, and how can they overcome such a problem massively?. The two questions were answered and proved by using ethnomethodology to gather data, in which video clip, voice clip, and camera, were the instrumentation used to record all about socio-interaction regarding the problem of the research. Then the raw data in the form of recording and documentation then transcribed in the text form using descriptive qualitative as the research report. The reason of using ethnomethodology is because the problem that has arisen was a kind of phenomenal problem among the society of TAPUT regency. In such a problem can be classified as ethnography study using ethnomethodology, see Yusuf (2018).

In conclusion, research result proved that 90 % of farmers know that unfinding CF all around Indonesia marketing recently, especially in TAPUT regency, is caused by there is a world war between Russian and Croatian that impacts export and import business includes CF, all around the world. The way how to overcome it massively is proved by socioedupreneurship that trained and educated by the team of researchers, in which the farmers are trained and educated on how to self-process and to self-produce Liquid Organic Fertilizer (LOF) for own use.

According to data analysis result, CF absence in TAPUT regency brings multy benefits for the farmers by LOF presence instead, in which the researchers team gave solution for the society's and the regent's massive problem, as well. The benefits they have gotten by using LOF to fertilize the farming are; 1) the result of harvest is improved from time to time, 2) LOF can qualifying and quantifying the harvest of farming, 3) LOF is able to improve nutrient of the soil and refining the rest impact of chemical substance, 4) sticking the roots of the plants to the soil directly after spreading, 5) Worthy saving budget for farmers since the price of CF is much more expensive than LOF price, 6) Bring the farmers out of problems for using CF, 7) later or sooner, the soil becomes fertile by applying LOF, henceforth, there is no risk but multiplying the harvest qualitatively and quantitatively.

Data analysis proved that post research conduction 100 % of the respondents agreed that the farmers in TAPUT regency now are satisfied and happy about the presence of Liquid Organic Fertilizer (LOF) which can be produced by themselves, 100 % of the respondents agreed that the farmers' demands disemboque or focusing on LOF instead of CF.

The high value of all about the research conduction according to the informants is the output of the treatment (socioedupreneurship) that has been mentored by the team of the researchers, it is LOF produced by the farmers themselves, 100 % of the informants agreed that the farmers appreciate the efforts of researchers' team as a high value education to train or educate them how to self-process and self-produce LOF. From data analysis proved that almost all the farmers have received

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