

Promoting Communication Value and Worth in Economics of Chemical-Free Rice Learning

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Abstract

This participatory action research's goal was to investigate the manner in which rice grown without chemical additives is communicated as having value and worth. Data were gathered from local people through in-depth interviews, focus groups, agent interviews, questionnaires, surveys, observations, and documentary research. The findings of this study show that there are four different types of communication: group communication, individual communication, communication through mass media and social media, and community communication. This knowledge is either a benefit for organizing public campaigns or a clear invitation to farmers who want to switch to chemical-free farming and understand its significance.

Keywords: Chemical-free rice, Communication, Economic value, Community-based learning

1. Introduction

Thailand's main agricultural export is product of rice. Thailand is a significant exporter of rice, therefore it has been distributed all over the world. In 2020, Thailand was the third-largest exporter of rice after Vietnam and India, with exports totaling roughly 5.72 million tons and costing 115,915 million baht. The Ministry of Commerce planned to export 6 million tons of rice in 2021 since it is regarded as a commercial good that generates a variety of incomes for the nation. However, employing chemical fertilizer to improve rice

production is still a staple of Thai agriculture. Because most chemical fertilizers are imported, this leads to higher product costs. Therefore, if farmers tend to do chemical-free farming, the cost of product would be lower while the production per area would be higher. That gains the competitive value and potential worth as well as contributes a healthier life for farmers and consumers (the policy of chemical-free rice product contribution: Safe rice & Low cost, the project of researches and policies connection, the Thailand Research Fund, 2013).

Northeastern region of Thailand is an important rice growing area, secondly from the central area only. There is one type of famous and good-tasting rice called Khaowong Kalasin Sticky rice. The rice is widely grown in Khaowong district and Nakhu district, Kalasin province. It's also registered in the Geographical Indication (GI) which is a system for guaranteeing the real product and claiming the product's original location name in order to inform buyers or consumers the quality of resource, reputation, and its special characteristics from a particular qualitative resource (Ministry of Commerce, 2009).

As in the past, chemicals were frequently employed in farming, particularly pesticides and insecticides to get rid of worms, rice leaf-folder worms, and shells. Additionally, as a result of the harmful contamination from farming, farmers are currently beginning to experience increasing health issues. Khaowong Hospital conducted a random blood chemistry test on farmers, and it was discovered that the majority of them had level 3 or level 4 risk factors. Accordingly, the lives of farmers are either in danger or even in danger of dying. Thus, the issues raised by this research include why farmers don't contribute to the production of rice without chemicals and how to foster communication to increase the value and worth of rice without chemicals.

The District Agricultural Office is keen to contribute community enterprise to produce chemical-free rice. Objectives are to reduce farmers' health problems and lower the cost of production. However, there's no empirical outcome of growing chemical free rice in value creation and worth. Farmers are unaware of using dangerous chemical for farming. Using chemical is expedited to a certain product outcome. By that mentioned reasons, the chemical farming remains the majority of rice farming method, so the contribution of chemical-free farming could not be extended as expected. On the other hand, it's probably because of the utilizing tool or promoting method are lack of effective communication so that the information could not gain people's interest and convinced people to be aware of its importance (Dostál & Prachagool, 2016).

The communication to campaign for farmers to turn to chemical-free farming in the past, there has been a gathering of villagers and people interested in organic farming named "Hugpaengbaengpan" group. Recognizing the importance of chemical-free farming, the group members had organized activities together and campaigned for more farmers to grow rice without chemicals (Sustainable Agriculture Foundation, 2020). Several types of media were used especially if it was community media. Aiming to encourage more farmers to become chemical-free farming, knowledge on chemical-free and development of rice quality were widely publicized. Beside this, the group members had gathered for practical move such as making self-made natural fertilizer and producing insecticide from local materials as well.

However, campaigning via community radio media received only a certain level of positive feedback. Although there were more farmers turning into chemical-free farming, some farmers still using chemical as they concerned that chemical-free farming was more complicate, uncertain and time consuming.

Despite having access to some media outlets, chemical-free farmers were unable to influence public opinion because their use of communication strategies was unoriginal and unsuited to their intended audience. The key difficulty in this research is how to get farmers to understand the value of switching to chemical-free farming and raise their knowledge of it. Khaowong Kalasin sticky rice, on the other hand, was not encouraged to grow for sale or to enhance quality and marketing as its potentiality while obtaining the GI guarantee. As a result, less land was used to grow glutinous rice. Therefore, communication takes an important part in raising awareness of the value of chemical-free sticky rice. It also promotes and increases economic value for farmers to be worthwhile from distinctive of sustainable resource capital.

Utilizing communication in developing rural area caused by the implementation of western process development. Communication is closely involved and interrelated, that are, communication strategies for development, decisions related to communication behavior or the adoption of communication to develop effectively to meet goals (Kritworakarn, 2009). According to many studies and learning about communication for rural development in the past, this is to say there was no solely pattern or processed solution that can be applied to develop “human” who are obviously different and diverse. In an early ages of a third world development, western economic growth rate was an indicator for development. The idea of a community economy refers to a method by which individuals, families, and communities create and sustain their own communities (Nartsupa, 2010). In order to carry out various economic activities, community members must work together to solve basic economic problems in the fields of agriculture, industry, and services in terms of product production, consumption, and distribution. Participants in these fields must share ideas, collaborate, and benefit from using community capital funds to solve these problems.

That is, community members make decision on the production prior to their potential and available capital fund. An important feature of the community economy is that the family is the unit of production. The most important factor is family members’ labor. Self-sufficiency relies on family labor, local resources, self-reliance and community support. After that, the product should be distributed to surrounded markets, regional markets and eventually domestic market. This is the way to sustain community economy in society and culture. In this research, the concept of community economy was applied as a framework for study and analysis. A production system will respond to preserve family and community as the economy is integrated into social system, culture and environment (El Islami et al., 2018; Sagala et al., 2019).

This research focuses on communication to promote the value of chemical-free rice in order to increase economic value as well as focuses on learning progress during operation and conclusion among community members, involved organizations, and other agencies. The

research target group will be directed from villagers who are farmers. They also are the community's media communicator on their platform. Communication is significantly considered to be important and influential in the development of a country in terms of economy, society, politics, and culture. Due to the fact that every activity requires communication, it can be considered that communication is an important factor for social development. It is an essential for people in society to communicate and exchange ideas, opinions, knowledge, attitudes, and experiences through communication no matter it is face to face communication, interposed media, traditional and folk media, and mass media. Particularly, in an economic development, community development should use the concept of development communication to encourage people using media for their empowerment. Also, the local people should be engaged in a manner known as communication for community.

2. Method

This participatory action research purposed to study the communication in promoting the value and worth in economics of chemical-free rice as following details:

2.1 Informant Group

The informant group is a group of stakeholders who live in Kud Pla Khao Subdistrict, Khaowong District, Kalasin Province. They are involved with chemical-free rice and communication to promote chemical-free farming. Khaowong Kalasin Sticky rice is famous and tasty as well as it's registered in Geographical Indication. Groups of key informants were 40 members of Khaowong Chemical-free rice, 10 members of local communicator of the community, and 100 members of rice farmer in Khaowong district, Kalasin Province.

2.2 Research Instrument

This research used data collection instrument consisting of in-depth interview, focus group, and questionnaires. When the data was completely collected, it was arranged according to research objectives. Then, providing a stage to share information with the community in order to verify the information before using it to design an operation of communication activity to promote chemical-free Khaowong rice farming together.

2.3 Data Collection

Data were collected through a various kind of methods (Table 1). Qualitative methods were employed and adopted to the study with local participants.

Table 1. Data collection methods

No	Informant groups	Informants	Data collection methods	Issues
1	Khaowong chemical-free rice	40	Focus group	<ul style="list-style-type: none"> • Problems and cause of chemical-free farming • Promoting communication for chemical-free farming
2	Local communicator of the community in Khaowong, District, Kalasin Province	10	In-depth interview	<ul style="list-style-type: none"> • Problem of communication to promote chemical-free farming • Types of communication and communication development to contribute farming of chemical-free rice

3. Result

3.1 Group Communication

The researchers have separated the communication style by the target group in order to meet the objectives. However, certain activities can be used by all target groups simultaneously, while others can only be used by the targeted group. There have been both large and small groups recently that have anything to do with chemical-free farming or organic farming on-site, such the group for organic rice production or the group for organic fertilizers. As a result, rice production has increased. The process for growing the membership was similar to the one for inviting the villagers to a meeting. The villagers who attended the meeting, however, did so because they were already interested. The way of setting up the group was started from discussion, exchange the opinions, set up the training and finally set up in groups, eventually become a local enterprise and kept increasing the number of members.

3.2 Individual Communication

Individual communication was intended to do direct communicate to the individuals, especially the interested and enthusiastic target groups. The main action was visiting the site of the agricultural garden model, in order to see the real site and building trust. We divided the research team into 2 teams. 1) Main target group; 2) Farmers that interested to attend the program. Both 2 group were all that really interested in chemical free rice planting but not yet starting the process.

3.3 The Utilizing Mass Media and Social Media Communication

Another interesting type of communication for researcher's team was utilizing mass media, from central, local media, or the social media which was becoming popular. Utilizing the

various type of mass media was built the trust and strengthens the ability of acknowledgement, recognition and raising awareness. However, the researchers didn't anticipate many changes in behavior; instead, they focused more on internal and external communication, for instance, using community radio as a medium for disseminating news and educating the populace about chemical-free agriculture. Utilizing the mass media network in the area to spread the research to the public let the locals feel proud, acknowledged, and acknowledged.

3.4 Community Communication

There were still using the downward communication from government officers to the community leader about promotion campaign of chemical free rice farming and organic rice farming, and the leaders will convey the information to the community members. From past to present, the most favorite way was using the broadcast tower village, then the word of mouth from the head of the groups. They communicate by chatting, making individual appointment, group members meeting, and one to one direct communication. It was said that this way of communication was the most effective, which villagers could get the information easily and got a well participated while calling for a meeting.

However; to get the good participation from the villagers, it must be about something that they will get a benefit. Whenever having a meeting on any topic, it would rather good to meet specific groups or individuals, then informed them clearly about reasons, advantages, and benefit. It would be unsuccessful if that announcement was not stretch to the point. The media tools that often used was the broadcast tower village, flyers, official documents and news video clips. Recently, the most effective communication channel was community radio, and the videos. Though, the videos were mostly not direct distributed to the villager's, and it was mostly being open occasionally on monthly meeting at the sub-district headman or village head's house.

4. Discussion

Accomplishing communication to promote worth and economy value in economics of chemical-free rice in Kudplakaw subdistrict, Khaowong district, Kalasin province involves with several factors and needs to modify the type of communication. Typically, communicating on policies with farmers were appointed by governor or other official agents and agriculture capital groups such as the capital group of chemical fertilizer or the capital group of agricultural machine and equipment. In the past, types of communication or promotion were top-down communication that people were phlegmatic receiver (passive audience). An agenda setting and gate keeper mostly depended on the government and the capital groups, which were concerned with benefit to control the content of information. Therefore, it was a major obstacle to accessing or understanding what farmer need due to lack of public participation.

Consequently, the research team analyzed and designed a conceptual communication as "development communication", which applied communication theories into various development function. That's a change on an old development concept called "modernistic

paradigm” that a state took a role as leader to distribute the development to several groups of people especially for the underdeveloped rural area (Parmin et al., 2019). This concept was directed from top to down approach and it resulted that the development was not hit the right point. That sparks a concept of the development communication which is a hybrid concept consisting of communication and development. People in the areas will reflect their issues and tales through the use of media for empowerment. In order to utilize theories of communication for development as a guidance from assessing media situations and constructing communication types to achieve objectives, research on the type of communication to increase community economic value is crucial.

All 4 types are consistent with the concept of development communication and are truly determined by the demands of the target group. In addition, as the research team jointly conduct participatory action research (PAR: Participatory Action Research) based on the target groups in each area as a set. The community members and target communicator are then participated in every research process from analysis, planning, data collection, summarizing, and following up the assessment. That’s become a communication called “participatory media”. This is the significant framework and considered the main theme of this research. As it is a communication that allows community members who encountered the problems to design and reflect their problems, which will lead to guideline for developing and solving problems correctly at the right point.

However, the communication type that the researchers partially designed, it was not guided or directed by academician. It was all mutual thinking, analyzing and planning within many limited aspects. That is to say, it’s the mutual movement dividing into various phrases; that are 1) Initiation; 2) Preparation; 3) Participation; 4) Continuation. Although communication on the process was indifference or was not an exotic form, research team members were genuinely learning together. Especially for the research team in community, it is an operation to design a participation communication. It is a communication of the community, for the community, and by the community, in other words. Communication that has the ultimate purpose of fostering community growth necessitates two-way interaction between sender and receiver as well as information flow in a variety of directions, including top-down, bottom-up, and horizontal.

In addition to the communication factors, there are many more factors to operate meanwhile there are campaigning for farmer to be aware of the importance and to change their behavior. Particularly in the level of policymaker, if the policy is clear, sincere and continuously respond by the experts who are reliable and consultable, the operation level would be able to operate in directional process. Successful policy is essential to determine with support rounded plan, for instance; a plan to promote chemical-free agriculture must be parallel with a plan to contribute the market force to support chemical-free produce. There are a number of organizations that taking their role in market force and fully support both in macroeconomics and microeconomics in order to support the farmers risk management. Meanwhile, the government should seriously implement measures to regulate the production, to sell chemical fertilizer for agriculture and forcefully operate without discrimination and lack of continuation. Once the operation could obtain these objectives, Khaowong chemical-free rice

will be gaining worth, adding more price value than current situation. Most importantly, it encourages farmers to discern their worth and root of living in traditional farming way as well as it is a base of community economic. Farmers are able to live with self-reliance and it is not necessary to rely on the condition of external economy according with a concept of community economy (Nartsupa, 2010).

5. Recommendation

(1) Community's media should offer various platform and input emphasizing health issues as well as the advantage of growing and consuming chemical-free rice.

(2) Chief of the community should take a role to make a better communication engagement, because community member would respect them and they in charge of broadcasting an information, so they must be a backbone to sort out an empirical result.

(3) There should invite some experience experts and successful farmers to lecture and being an inspiration for growing chemical-free rice.

(4) The community leader should be a practical model by starting a farm for at least 1 Rai and then comparing result on their health and other aspects between chemical farming and chemical-free farming. The leader could be gaining trust from people in the community.

(5) Government Units should be more supporting on capital funding and materials for chemical-free farming.

6. Conclusion

There are 4 types of communication that are 1) group communication; 2) individual communication; 3) the utilizing mass media and social media communication; and 4) community communication. The process of communication can be useful for community-based learning and making public campaigns or the noticeable invitation for community members about chemical-free farming. Effective communication allows them to learn how to communicate with others by informal and non-formal learning which each type can be gain understanding about chemical-free rice learning.

References

Atkin, C. K., & Rice, R. E. (2012). Theory and principles of public communication campaigns. In C. K. Atkin, & R. E. Rice (Eds.), *Public Communication Campaigns* (4th ed., pp. 3-20). California: Sage. <https://doi.org/10.1002/9781444361506.wbiems129>

Dobermann, A., & Fairhurst, T. (1999). Field handbook. *Nutritional disorders and nutrient management in Rice*. IRRI, PPI/PPIC.

Dorfman, L., & Wallack, L. (2012). Putting policy into health communication: The role of media advocacy. In C. K. Atkin, & R. E. Rice (Eds.), *Public Communication Campaigns* (4th ed., pp. 335-348). California: Sage. <https://doi.org/10.4135/9781544308449.n23>

Dostál, J., & Prachagool, V. (2016). Technology education at a crossroads—history, present and perspectives. *Journal of Technology and Information Education*, 8(2), 5-24.

<https://doi.org/10.5507/jtie.2016.006>

El-Islami, R. A. Z., Nuangchalerm, P., & Sjaifuddin, S. (2018). Science process of environmental conservation: Cross national study of Thai and Indonesian pre-service science teachers. *Journal for the Education of Gifted Young Scientists*, 6(4), 72-80. <https://doi.org/10.17478/JEGYS.2018.84>

Healey, K. (2013). The challenge of media research ethics. *The International Encyclopedia of Media Studies*. Wiley Online Library. <https://doi.org/10.1002/9781444361506>

Kalema, E. P. (2017). *Importance of information and communication technology in rice production among small scale farmers in Morogoro region, Tanzania* (Theses and Dissertations Collection, Sokoine University of Agriculture). Retrieved from <http://suaire.suanet.ac.tz/handle/123456789/2026>

Kayarni, T., Arifin, F., Hapsari, H., & Supriyadi, E. (2019). Organic rice farming for sustainable development in the Nurani Sejahtera Farmers Group. *IOP Conference Series: Earth and Environmental Science*, 306, 12-13. <https://doi.org/10.1088/1755-1315/306/1/012013>

Mancino, L., Guthrie, J., and Just, D. R. (2018). Overview: Exploring ways to encourage healthier food purchases by low-income consumers—Lessons from behavioral economics and marketing. *Food Policy*, 79, 297-299. <https://doi.org/10.1016/j.foodpol.2018.03.007>

Mcguire, W. J. (2012). Mcguire's classic input-output: Framework for constructing persuasive messages. In C. K. Atkin, & R. E. Rice (Eds.), *Public Communication Campaigns* (4th ed., pp. 133-146). California: Sage. <https://doi.org/10.4135/9781544308449.n9>

Ministry of Commercial. (2009). *Thai Geographical Indication (GI)*. Retrieved from http://www.ipthailand.go.th/images/gibook/GI_Book_111.pdf

Mishra, S. (2013). Doing survey research in media studies. *The International Encyclopedia of Media Studies*. Wiley Online Library. <https://doi.org/10.1002/9781444361506.wbiems174>

Nartsupa, C. (2010). *Conceptual framework of Community's economic and culture in academic series "a desirable alternative society"*. Commission of Isaan People Fair for Local Resource Protection, Bangkok.

Nguyen, H. D., Matty, D., Ellen, J. V. L., Annalynde, G., Pieter, R., Tran, H. T., & Wim, V. (2018). What is the value of sustainably-produced rice? Consumer evidence from experimental auctions in Vietnam. *Food Policy*, 79, 283-296. <https://doi.org/10.1016/j.foodpol.2018.08.004>

Nzozzo, D., & Mogambi, H. (2016). An analysis of communication and information communication technologies adoption in irrigated rice production in Kenya. *International Journal of Education and Research*, 4(12), 295.

Panpluem, N., Mustafa, A., Xianlei, H., Shu, W., & Changbin, Y. (2019). Measuring the technical efficiency of certified organic rice producing farms in Yasothon province: Northeast

Thailand. *Sustainability*, 11(4), 6974. <https://doi.org/10.3390/su11246974>

Parmin, P., Nuangchalem, P., & El Islami, R. A. Z. (2019). Exploring the indigenous knowledge of Java North Coast Community (Pantura) using the science integrated learning (SIL) model for science content development. *Journal for the Education of Gifted Young Scientists*, 7(1), 71-83. <https://doi.org/10.17478/jegys.466460>

Patrawart, J. (2018). *Promoting rice value addition through inclusive business model*. Retrieved from <https://ap.fftc.org.tw/article/1307>

Robinson, S. (2013). The interview. *The International Encyclopedia of Media Studies*. Wiley Online Library. <https://doi.org/10.1002/9781444361506.wbiems176>

Sagala, R., Nuangchalem, P., Saregar, A., & El-Islami, R. A. Z. (2019). Environment-friendly education as a solution to against global warming: A case study at Sekolah Alam Lampung, Indonesia. *Journal for the Education of Gifted Young Scientists*, 7(2), 87-97. <https://doi.org/10.17478/jegys.565454>

Salmon, C. T., & Johnson, L. M. (2012). Communication campaigns effectiveness and effects: Some critical distinctions. In C. K. Atkin, & R. E. Rice (Eds.), *Public Communication Campaigns* (4th ed., pp. 99-112). California: Sage. <https://doi.org/10.4135/9781544308449.n7>

Sarenonchai, S., & Arunrat, N. (2022). Farmer's perception, insight behavior and communication strategies for rice straw and stubble management in Thailand. *Agronomy*, 12(1), 200. <https://doi.org/10.3390/agronomy12010200>

Suebpongsang, P., Ekasingh, B., & Cramb, R. (2020). Commercialisation of rice farming in northeast Thailand. In R. Cramb (Ed.), *White Gold: The Commercialisation of Rice Farming in the Lower Mekong Basin*. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-15-0998-8_2

Taylor, M. (2012). Corporate social responsibility campaigns: What do they tell us about organization-public relationships? In C. K. Atkin, & R. E. Rice (Eds.), *Public Communication Campaigns* (4th ed., pp. 259-272). California: Sage. <https://doi.org/10.4135/9781544308449.n18>

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