

## A Process of Environmental Education Communication through Community Cultural Activity Area

Duangporn Wongpaibool<sup>a</sup>, Wee Rawang<sup>a</sup>, Ratchanont Supapongpichate<sup>a</sup> and Pataraboon Pichayapibool<sup>a</sup>

<sup>a</sup>Mahidol University, NakhonPathom, Thailand

### ABSTRACT

The purpose of this research was:

1. To investigate social context, environment, way of life and community culture.
2. To gather the views and opinions regarding environmental conservation and restoration.
3. To synthesize a process of environmental education communication based on community cultural activity area.
4. To evaluate the efficacy of the environmental education communication processes.

This research uses Participatory Action Research (PAR) along with a Civil Society Forum. The results revealed that the environmental situation in the community was most likely changed from rural to urban and has environmental problems, there was the process of community cultural area (CCA) but with lack of local people participation. The local people needed to restore and conserve their environmental situation and way of life; of Thai - Mon culture for the next generation. The overall environmental education learning level and process of environmental education communication levels were located at moderate levels of 3.37 average with 0.64 standard deviation and at 3.20 average with 0.56 standard deviation respectively. Therefore, the element of the process of environmental education communication was as follows: Sender: the committee, the performers and organizers of Ampheang Community cultural activity area. Message: community identity, community story, community problem, the needs of local people. Channel: community cultural area activities. Receiver: local people. Impact: restoration and conservation of their environment, way of life, community biodiversity, and a better quantity of life. The evaluation of the efficacy of the environmental education communication processes were located at a high level of 4.60 in 6 projects established by local people.

### KEYWORDS

Communication process, environmental education, participation, community cultural area, Rim khlong Ampheang, Thai-Mon culture

### ARTICLE HISTORY

Received 14 May 2016  
Revised 15 June 2016  
Accepted 19 June 2016

**CORRESPONDENCE** Duangporn Wongpaibool ✉ [wngpbl@yahoo.com](mailto:wngpbl@yahoo.com)

© 2016 Wongpaibool et al. Open Access terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>) apply. The license permits unrestricted use, distribution, and reproduction in any medium, on the condition that users give exact credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if they made any changes.



## Introduction

Environmental pollution is becoming more obvious to people all around the world including Thailand. This is now approaching crisis level. This has been caused by

1. The growing population of the world.
2. The spread of urban areas.
3. The development of new technologies.

The Thai government has a national economic and social development plan as a master plan of action (No. 10 - 11) and one of the targets focuses on environmental problems. The plan represents environmental strategies in Thai society that give importance to participation by all elements of society, in order to create a balance in the development of the economy, society, culture and environment and natural resources. In terms of balance means : restoration , protection and conservation in community way of life, community culture, tradition, local wisdom and natural resources such as soil, water, air, energy, forest, marine coastal resources and biodiversity etc.

Communication and social existence were part of each other. The success of communication based on sender and receiver must focus on the same things at the center of communication is a process and contains 4 most importance issues.

1. The process has to relate to all people
2. Messages and information to the receiver must be factual, (public)
3. To be the center of public communication and information and allow for the exchange of social opinion.
4. To build up a process of participation amongst the people at all stages.

Therefore, communication is an important key that influences and drives the process of participation within the community to take part in community activities.

Environmental Education is another process that can construct the holistic system by : awareness, attitude, knowledge, skill, participation and evaluation.

Community Cultural Area (CCA) is a community organization run by members of the local community as an NGO. The activities of the CCA were setup by members of the local community. This helps to create overall harmonious community based learning and can pass on traditional and culture to the younger generation and other members of the community. Therefore CCA can also drive action plans No. 10 and 11, by using the members activities to achieve the nation goal effectiveness.

Thus, the researcher proposes that a Process of environmental education communication through community cultural activity areas at Rim Khlong Amphaeng cultural area Amphaeng sub-district Ban-phaeo district, Samut-Sakhon Province, is an important channel for environmental education communication. This will help Amphang community reach their goals. By reaching their goals they can influence other areas to aim for higher levels. This can lead to sustainable development as well.

## Methodology

### *Scope of the Study*

The scope of this study is as follows:

- i. Study Areas: Ampheang Sub-District Banphaeo District Samut-Sakhon Province
- ii. Contents: Concept of Participatory Communication, Environmental Education, Way of life & Culture, Theory of communication, participation
- iii. Population: including 7 villages in Amphaeng Sub-District
- iv. Duration: November 15, 2012 – November 15, 2015

### ***Population and sampling***

The main population of this research were the local people from 1,439 households in 7 villages and government officer, local leader whom involves within research areas, community cultural area committee, organizer, performance

- i. There were 388 participants collected data by using the questionnaire from Ampheang Sub-District, calculated by the formula of Taro Yamane.
- ii. There were 15 people involve namely: community leader, government officer
- iii. There were 35 community cultural area committee, 30 organizers and performers from 6 activities
- iv. There were 385 participants collected data by using the questionnaire from people who participated in the six activities, calculated by the formula of Cochran.

### ***Data Collection***

The research has conducted and collected data from questionnaire, structured interview and In-depth interview, focus group discussion, civil society forum as follows:

- i. Information is obtained from the study of theories and concepts research documentary related to A Process of Environmental education communication through community cultural activity area. The information will be further analyzed and synthesized.
- ii. Data obtained from questionnaires responded to by 388 community members who were representatives of the households in the research area. Statistics results are reported, including frequency, percentage, and standard deviation.
- iii. Data obtained from 15 participants in the structured interviews and in-depth interviews. Descriptive state and content analysis are applied for data analysis.
- iv. Data obtained from civil society forums and focus group discussions responded to by 65 people namely: committee members, organizers, performers. This content was analyzed and descriptive explanations given.
- v. The establishment of a process of environmental education communication through community cultural activity areas consists of 6 steps.
  - a. Verifying the validity of data obtained from the questionnaire and In-depth interviews.
  - b. Analysis and synthesis the data collected.
  - c. Collecting data obtained from civil society forums and focus group discussion.



- d. Concluding and referencing all information to draft out the process of environmental education communication.
- e. Draft of a process of environmental education communication through community cultural activity areas has to be delivered to experts for quality assessment and consistency of the process.
- f. Preparing the final draft and construction of a process of environmental education communication through Community cultural activity areas.

### **Data Analysis**

This research uses both qualitative and quantitative methods, participatory action research, research and development, quantitative data and are analyzed by (SPSS) computerized program to analyze, mean, frequency, percentage, and standard deviation. Qualitative data is analyzed and synthesized by using content analysis and content interpretation.

### **Results**

1. The demographical data shown that questionnaire respondents include 60.06% of females and 39.94 % of males. Data from in-depth interviews included 15 local leaders and government officers and 35 community culture area committee members, 30 organizers and performers. 48.19% had an average annual income less than 50,000 baht, 36.60% had an average annual income of between 50,001 - 100,000 baht.

2. The investigation of the environmental context and circumstances in the community found that the environmental situation in the community soil, water, energy, plant, garbage, concept culture, organization culture, material culture, in the soil. 76.80% use their land for agriculture 82.21% of this soil was contaminated by the chemical residue. 73.45% of community members use water from natural resources such as canals and rivers in their community. 76.80% use water for agriculture activities. 40.46% of water pollution occurred by the side of agriculture in the community. In terms of weather, the result showed that 54.38% of local members have problems with a lot of chemical in the air and 48.47% had problems from air pollution derived by agriculture.

In terms of energy problem, the result show that 82.98% of local members paid high costs and 80.15% were affected by increasing energy costs. Issue of plant, the result shown that 54.38% of local people in the community have grown crops for commercial purpose 64.17% of community members have drought problem with their crops. For the garbage issue: 54.38% of people, whom are members of the community, throw garbage bags into the canal belonging to their community. and 39.69% were faced with dirty from garbage in their community.

About the concept culture. 31.44% of local members agreed that human being have used the surrounding environment for a living. 42.26% of local people as members of the community participate in community activities as many considered it to be of community benefit. The organization culture shows that 41.75% of members of the community will get together when they have ceremonial or traditional events in their community and most 35.05% of them used the law to solve any community disputes. In terms of usage culture, 71.90% shown that tradition in community has been influenced by religion .90.72% of the community members feel proud of themselves for participating in community traditional activities. In terms of material culture issues show that 82.73% of the community

members have been living in their own house and also 55,92% of people dressed up appropriately according to the occasion.

3. The level of environmental education and participation to the systematic process of communication within Amphaeng community is shown on Table 1 as follows.

**Table 1.**

Environment Education (N=388)	Mean	S.D.	Level
Awareness	4.18	0.76	High
Knowledge	3.30	0.58	Moderate
Attitude	4.09	0.79	High
Skill	3.18	0.57	Moderate
Participation	3.24	0.59	Moderate
Evaluation Ability	3.38	0.60	Moderate
Total mean	3.37	0.66	Moderate

From Table 1, Most informants had moderate levels of knowledge ( $\bar{x} = 3.37$ ) related to environmental learning. However, the research found that each aspect can be considered. That awareness was rated at a high level ( $\bar{x} = 4.18$ ) knowledge was rated at a moderate level ( $\bar{x} = 3.30$ ) attitude was rated at a high level ( $\bar{x} = 4.09$ ) skill was rated at a moderate level ( $\bar{x} = 3.18$ ) Participation was rated at a moderate level ( $\bar{x} = 3.24$ ) Evaluation Ability was rated at a moderate level ( $\bar{x} = 3.38$ )

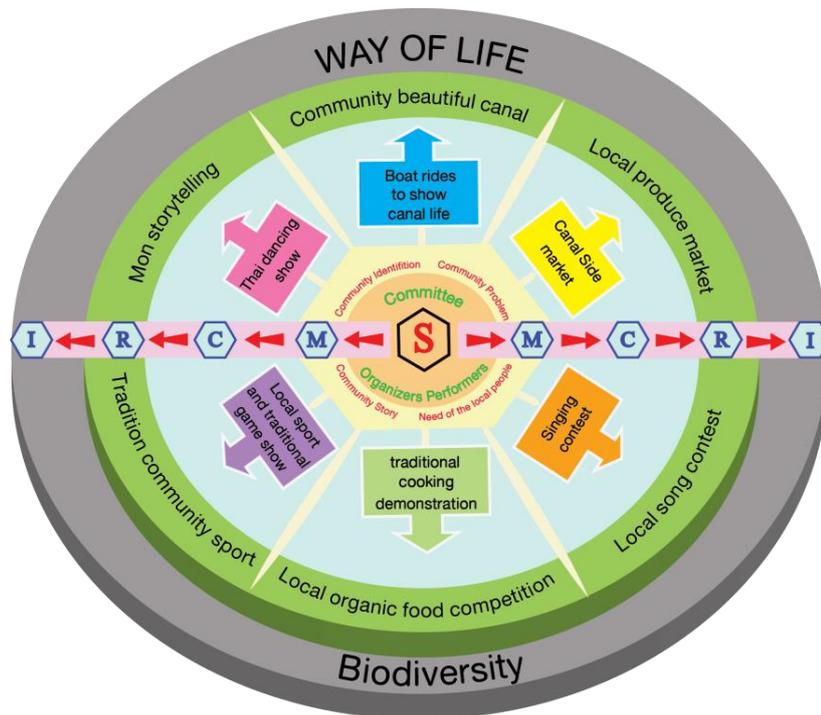
4. The level of environmental education communication through community cultural activity area to systematic the process of communication within Amphaeng community is shown on Table 2 as follows.

**Table 2.**

Communication Process (N = 388)	Mean	S.D.	Level
Reaction	3.27	0.59	Moderate
Learning	3.23	0.58	Moderate
Behavior	3.21	0.49	Moderate
Results	3.36	0.58	Moderate
Total mean	3.26	0.56	Moderate

From Table 2, the research found : at all levels informants had moderate and a total mean ( $\bar{x} = 3.26$ ) Reaction was rated at moderate levels ( $\bar{x} = 3.27$ ), learning was rated at a moderate level ( $\bar{x} = 3.23$ ), behavior was rated at a moderate level ( $\bar{x} = 3.21$ ), results were rated at moderate levels ( $\bar{x} = 3.36$ ).

A process of environmental education communication through community cultural activity areas (for helping local people in reaching their objective of preservation, restoration and conservation in the community and this is also reaching the objective of environmental education that can be synthesized as presented by Figure 1.



**Figure 1.** A Process of Environmental Education Communication through Community Activity Areas

From Figure 1, A process of Environmental Education Communication through Community Activity Areas elements are

1. Sender (S): committee, organizers, performers
2. Message (M) : community identification, community story, needs of the local people, community problems
3. Chanel (C): community cultural areas and activities
4. Receiver (R) : members of the community and local people who took part in the community projects
5. Impact (I): way of life and biodiversity in Amphaeng community.

From the analysis of the internal environment combined with strengths and weaknesses, 74.47% of the community members agreed that the Rim KhlongAmphaeng community cultural area had weaknesses in terms of public participation and this was also shown in the questionnaire and 12.11% agreed that a lack of adequate budgets was a factor. 13.40% said a lack of human resources was also a factor. On the other hand, 38% said strengths were the richness of its location. 32.47% outsider corroboration. 28.60% local leadership stimulation. From the analysis of the external environment, combined with the opportunities and threats revealed that 48.71% of local people agreed that Rim KhlongAmphaeng community cultural areas should be the place for a learning process such as to demonstrate the traditional and community culture to the public. 32.21% agreed it should be the area center and combining s all kind of activities. 11.34% agreed it should be place to attract tourists and 7.73% as an alternative tourist place for people to visit. While 49.75% agreed the threat was,

local peoples' ignorance of the communities environmental problems. 25% agreed the community members lacked public mindedness. 22.25% said insufficient government officer corroboration. These projects came into being by a procedure of Environmental Education Communication, through community activity areas. The project took place for the promotion, restoration and conservation of their environment, way of life and Mon or Raa-man culture. These elements contain: communication, environment, way of life and culture, with local people participating at all stages and eventually Amphaeng Community members will archive their goal of a better quantity of life in a better environment.

## Discussion

1. Souse of information of local people received: 57.98% of members of the community received information from television and 32.21% from the radio. Because Amphaeng community is located quite close to Bangkok, (capital of Thailand) that contributed to the members of the community changing their lifestyle to be like the lifestyles of city people. Every household has electric appliances such as television, radios etc. It is not necessary to receive information from other scourers

2. Role and responsibility in environment conservation: 88.40% of members do not have a role in community environment conservation due to their understanding. The think the government should set up a board of conversation in the community, before asking local people to take part in the conservation of their community. In this case, the researcher raised this problem with local leaders at a civil community forum for all those involved with the community, to find a solution to solve this problem.

3. Environmental situation (garbage) : 54.38% of community members get rid of garbage by putting it into a bag before throwing it out into the canal. The local people making a living around the canal side where they live and nearby Amphaeng community located closed to Tha-jeen river and the mouth of the Thai bay. Local people think they do not do anything wrong with their garbage. They learnt to get rid of garbage from their parents a long time a go and nothing bad had happened. They had throw out the garbage and it will flow downstream to the Tha-jeen river or to the mouth of Thai bay. The garbage does not get stuck in the community canal at all. It was shown that most of the local people misunderstood and had a lack of knowledge as to how to keep the environment clean. They chose the convenient, easy and most suitable way for them to solve the garbage problem.

4. Level of environmental education before implementing a process of environmental education communication through community cultural areas: found, awareness (Mean = 4.18) knowledge (Mean = 3.30) attitude (Mean = 4.09) skill (Mean = 3.18) participation (Mean = 3.24) evaluation ability (Mean = 3.38) total mean (Mean = 3.34)

There is a moderate level of concern by. local people in their community. There still has a sense of localism. Their society and community has been changed rapidly by globalization especially in terms of new technology. The computer and digital age has even contributed to Amphaeng communities difficulty to existence. To live with these new circumstances, people have had to become more knowledge and skilled.



As a part of learning evaluation, a process of environmental education communication through community culture activities areas, before constructing a modal the evaluation found : reaction level (Mean = 3.27), learning level (Mean = 3.23), behavior level (Mean = 3.21), result level (Mean = 3.36), Total Mean Moderate (Mean = 3.26), due to a lacking in the communication process within the Amphaeng community information, did not reach the into the community for its reaction and learning due to a communication breakdown somewhere. This was the reason why the sender could not change people's behavior. The sender who sent the message to the receiver will have to look at all communication elements to find the problem area, namely; sender, message, channel, receiver

5. The construction of a process of environmental education communication through community cultural activity areas: most of the community members responded that the process of environmental education communication through community cultural activity areas would be better, if the community members have an opportunity to participate in setting up the programs and activities process at all stages. Therefore, to construct a process of environmental education through community cultural activity areas has to focus on participatory communication, refer to (Shirley A. White, et al, 1994, p.p. 15-31) Mentions that the heart of participatory communication is a process of brainstorming, public listening, respect of others opinion, analysis of the communities situation based on fact and to make decisions together. The participatory communication can lead to public concretization and assist in the learning process among the community members and this is relevant to Thai 10 and 11 national economic and social development plan that focuses on strategies of all parts of social participation.

6. The construction a process of environmental education communication through community cultural activity areas about the expectation: most of community member responded that they need "Rim Khlong Ampheang cultural areas or forum to be the center or heart of the community, they would like community to be proud of and feel that everybody as members and owners That they can show and demonstrate their Raa-man tradition and Raa-man culture. This is very unique. According to the needs of community members. Today the younger people and the people of working age in Amphaeng community go out of their community to live in other areas due to the pollution problem in their community and in Samut-Sakhon Province as well.

To succeed in a process of Environmental education communication through community cultural activity areas (EECCCA), we need to investigate the context areas and the community circumstances such as environment, social reactions, economic, way of life, culture, tradition. These are very importance and have to be done before constructing a process of (EECCCA) as can be a better tool for community members to have a better quality of life in a much better environment.

## Conclusion and Recommendation

### Conclusion

A Process of Environmental Education through community cultural activity Area or Forum at Lim Khlong Amphang sub-district, Ban Phraeo district Samut-Sakhon province consists of the following elements: Element 1 was the sender consisting of three groups: the first group is the committee of community cultural area, the second group is community cultural area organizers, and the third group is the operator or performers of the activities. Element 2 was the message

consisting of 1: community identities, 2: content, problem, and community needs 3: method of sending a message. Element 3 was the channel, which means to send a message. The recipient will receive information through his/her senses, such as seeing, hearing, touch, touch, smell, or through six community cultural activities such as 1) Boat ride along the canal to observe ecosystem and local lifestyle, 2) Visits to markets on the edge of the canal, 3) Local singing contest, 4) Demonstration of local traditional culinary art, 5) Local sports and traditional game show, and 6) Lakhon Chatri local traditional dance performance. Element 4 was the receiver who have the skills to communicate with the capabilities to decode the message by the people who have the knowledge, attitudes, social, cultural similar to the sender to make meaningful results the same meaning as intended by the sender. The following 6 projects resulted from the receiver's ability to receive the message as intended: Project 1: Beautiful canal by our hands project, Project 2: Community's goods market project, Project 3: Music for community project, Project 4: Local food, safe and healthy project, Project 5: Sport for a strong community project, Project 6: Raman legendary heritage project. Element 5 was the positive impact, a result of the environmental education communication process through community cultural area in the way of creating quality and livable community life, coupled with biological diversity resulting in the community members' better lives in improved environment.

### ***Recommendations***

1. There should be a willingness and promoting for community members to participate at all steps of community activities that make them part of the community.
2. Local government and government officers involved in the community should regularly provide environmental education training programs that provide knowledge, promote skill, inform about new technology ect., for local members, then they will have the ability to look after their community in the appropriate way.
3. Community Groups and members of non-government organizations (NGO) who are involved with Amphang community should consider using a process of environmental education communication through community cultural activities in order for the community to have an opportunity to voice their needs or community problems to the public. On the other hand, this process can be a good tool for community's that supports people to work together by participating in community activities.
4. NGOs in Amphang community should develop themselves to be local researchers and provide an opportunity for members of the community to participate in local research by applying this research into the future.
5. This research element was constructed for this process by considering the conditions and factors that include context of the community, circumstances, situations and environment in Amphang community. For further study, the researcher should be concerned about the surrounding research areas before construction of a model.
6. The results of this research can be extend to further research such as cultural & ethnic tourism, eco-tourism in other areas.



## Acknowledgement

This research is a part of Doctor of Education (Ed.D.) dissertation, field of environmental education, Department of Education Faculty of Social Sciences and Humanities, Mahidol University.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Notes on contributors

**Duangporn Wongpaibool** holds Doctoral Graduate in Environmental Education Program, Department of Education, Faculty of Social Sciences and Humanities, Mahidol University, NakhonPathom, Thailand.

**Wee Rawang** is Thesis Advisors in Environmental Education Doctoral Program Department of Education, Faculty of Social Sciences and Humanities, Mahidol University, NakhonPathom, Thailand.

**Ratchanont Supapongpichate** is Thesis Advisors in Environmental Education Doctoral Program Department of Education, Faculty of Social Sciences and Humanities, Mahidol University, NakhonPathom, Thailand.

**Pataraboon Pichayapibool** is Thesis Advisors in Environmental Education Doctoral Program Department of Education, Faculty of Social Sciences and Humanities, Mahidol University, NakhonPathom, Thailand.

## References

- Aronson, E. and Golden, B.W. (1962). The Effect of Relevant and Irrelevant Accept of communication Credibility on Opinion Change. *Journal of Personality* 30: 135-136.
- Barnett, H.G. (1993). "Communication for development in Latin America: a forty-year appraisal" in Nostbakken, D. & Morrow, C. (1993). *Cultural expression in the global village*. Penang, Malaysia: Southbound. Pp. 10&11
- Crowl, Thomas K. (1993). *Fundamentals of Educational Research*. United States of America: Wm C. Brown Communications, Inc.
- Chanthawanich.S. (2551). *Methods of qualitative research*. 16<sup>th</sup> Edition. Bangkok: Chulalongkorn University Printer. [in Thai].
- Chin, S.Y. & Quebrel, N. (1991). *Project for broadcasting in development: report*, Hull, Canada: Canadian International Development Agency.
- Filiciano, Gloria. (1983). Training in the Development and Use of Folk Media and Mass Media in Field Level Communication Strategies. UNESCO Report Folk Media and Mass Media in Population Commutation 8 (March): 8
- Rogers, E.M. (1983). *Diffusion of innovations*, 3rd. edition. New York, USA: The Free Press.
- Servace, J. (2001). *Communication for development: One World, Mutiple Cultures*, Cresskill, NJ. Hampton Press.
- Servaes, J. (1989). One world, multiple cultures: a new paradigm on communication for development. Leuven, Belgium: Acco
- Singhal, A. (2001). *Facilitating Community Participation through Communication*. New York: Unicef.
- Srisopha, A. (1982). *Test development*. Bangkok: Jutharat. [in Thai].
- Thomas, P. (1994). Paticipatory development communication: Philoshophical premises. In S.A. White, K.S. Nair, & J. Ascroft (Eds.) *Partivipatory communication: working for Change and Development* (pp. 15-32) New Delhi: Sang.
- White, S.(1999). *The art of facilitating participation: Releasing the power of grassroots communication*. Srisopha, A. (1982). *Test development*. Bangkok: Jutharat. [in Thai]
- UNESCO. (1976). The Belgrade Charter. *Connect UNESCO-UNEP Environmental Education Newsletter*, 1(1), 2-6.

- Uphoff, N. (1985). "Fitting projects to people" in Cernea, M.M. (ed.) (1985) *Putting people first: sociological variables in rural development*. Oxford, UK : Oxford university Press. Pp. 369-378
- Weerawattananont, W. (2003). *Environmental education*. 3 rd edition. Bangkok: odeon Store. [in Thai].
- Wisitphanich, J. (2008). *National forest park management manual*. Bangkok: Department of National Parks, Wildlife and Plant Conservation. [in Thai].
- White, S.A.(1994). The concept of participation: transforming rhetoric to reality, in White, S.A. et al (1994) *Participatory communication: working for change and development*. New Delhi, India: Sage Publications. p.18
- Williamson, H.A. (1991). The Fogo Process: development support communication in Canada and the developing word" in Casmir, F.L. (1991) *Communication in development*. Norwood, New Jersey, USA: Ablex Publishing Corporation. Pp. 270-287.