

THE STUDY ON AWARENESS AND PARTICIPATORY PROCESS REGARDING THE SURVEILLANCE OF SURFACE WATER QUALITY AT MUANG RAI KING MUNICIPALITY, SAMPRAN DISTRICT, NAKORN PATHOM, THAILAND.

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ABSTRACT

The research aims to study the awareness and participatory process regarding the surveillance of surface water at Muang Raiking Municipality, Sampran District, Nakorn Pathom, Thailand. A questionnaire is used for collecting data from members of 400 households. The data was the processed via statistical tools. The findings revealed that the majority or 53% of the respondents were female with ageing range between 35 to 50 (38%); holding the junior high school certificate (38.6%); earned their living on personal business (35.8%); were Buddhist (44.2%); were married (55.8%); and have resided in the community for more than 10 years (61.55%). The awareness regarding the surveillance of surface water overall was at the high level with a mean of 3.51; meanwhile, the participatory process of people was at a low level with a mean of 2.37. When considering the individual aspect of participation, planning came the highest at 2.53; followed by problems survey and causes at 2.45; operation at 2.28; and following up and evaluation at 2.23.

Keywords: awareness on the surveillance of surface water, participatory process regarding the surveillance of surface water, surface water quality

INTRODUCTION

Water is an important natural resource and essential to the livelihood of all living things. In the past, Thai people began to settle communities on the riverside [1] therefore have a way of life that is bound to the river with water resources being an important source of food (figure 1).





Figure 1. Communities on the riverside.

People pay great importance to the river, as can be seen from various traditions that have been passed down from the past to the present, for example Loi Krathong tradition. From national development especially in agriculture and the industrial sector in the past, including the increase in population, resulting in increased use of water which affects both the quantity and quality of water resources such as reduced water resources for consumption and not suitable for use in consumption, water pollution problems most of which are caused by human activities such as dumping dirt and waste from community sources, Industrial waste water, residue from agricultural chemicals flowing into rivers, canals etc. which directly affects the quality of water resources.

Rai Khing Municipality, Sam Phran District, Nakhon Pathom Province (figure 2) with the Tha Chin River being the main river flowing through and there are 20 branch canals linked. The general condition of every canal still has surface water which can be utilized for consumption [1]. Most of the people who live in the municipality of Rai Khing are engaged in agriculture, which requires large amounts of water.





Figure 2. Rai Khing Municipality, Sam Phran District, Nakhon Pathom Province

There is also an expansion of factories, resorts, dormitories, housing estates and communities located in Rai Rai Khing municipality, which may be a major cause of the deterioration of surface water quality, making it unsuitable for use in consumption. Coupled with the geographic factors of the canal style that have inconvenient water circulation may result in a critical condition of the water source and the loss of natural equilibrium.

Monitoring of water sources is therefore an important way to help them understand the situation of water resources deterioration, which can solve problems in a timely manner; it is also used as a database for community water management planning [2].

1. Awareness

The concept of awareness is the multidisciplinary study of psychological approach with the behavioral sciences. Milinthajinda [3] as a state defined awareness when individuals express their opinions and consciousness. It is the state of having discernment of something, in which time, situations, experience or environment are influencing. Awareness is similar to feeling; however, awareness is not associated with memory or ability to recognize. It is rather a realization after perceiving particular situations [4].

As explained by Khaophon [5] awareness is a condition, which affects individuals' feeling and consciousness and develops their introspection, which changes their perception about the world around them. Jeamponk [6] stated that awareness could be a behavior, which reflected responsibility of a person towards particular situations; feelings and values, which were a result of personal evaluation of arousals.

In conclusion, awareness can be defined as a sudden realization, which, by human nature, cannot be separated from a sudden emotion and feeling. Awareness is cultivated by various factors, for instance environment, past experiences, and conditions, which are a result of emotions and feelings.

2. Incidence of awareness

Jeamponk [6] defined the psychological process of awareness as a result of cognitive process (shown in Figure 3.). It is when individuals undergo situations where they are

aroused by stimulus; recognition occurs, followed by comprehension, conceptual understanding and learning. Incidence of awareness is the final in the process before individuals behave.

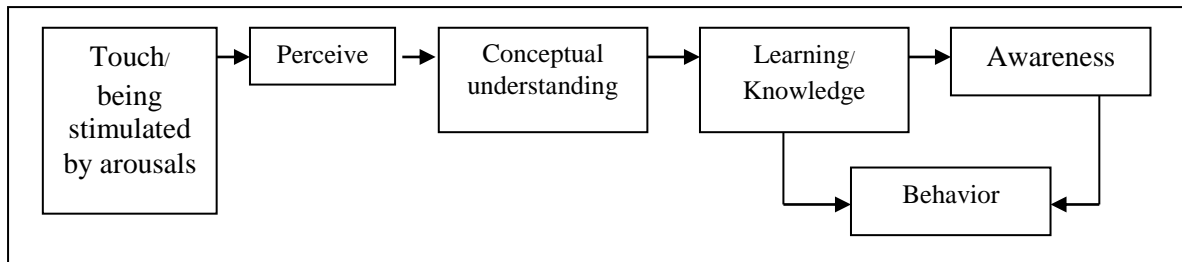


Figure 3. Steps and Process of Incidence of Awareness.

3. Antecedents of awareness

Boonyindee [7] stated that awareness was under an influence of attitude towards stimuli, which include persons, situations, social groups and other external factors. Awareness affects behavioral intention in positive or negative ways to respond stimuli; these are derived from learning through experiences.

The 3 core components for an incidence of awareness include the following:

- Cognitive component which starts from level of works engaged and gradually develops.
- Affective component which is attitude, value, realization, judgment used in evaluating stimuli.
- Behavioral component which is an action made to respond to stimuli or behavioral intention. Therefore, persons, situations, social groups, learning and experiences are influential factors of an incidence of awareness, in which feelings, comprehension and behaviors are the antecedents.

Persons, situations, social groups, learning and experiences are influential factors of an incidence of awareness, in which feelings, comprehension and behaviors are the antecedents. Desired behavior of a person therefore requires the person’s self and social awareness.

OBJECTIVES

1. To study the level of awareness on surface water quality of people living in Rai Khing Municipality, Sam Phran District, Nakhon Pathom Province.
2. To study the level of public participation in surface water quality surveillance in Rai Khing Municipality, Sam Phran District, Nakhon Pathom Province

METHODOLOGY

This study is a survey research. The questionnaire was developed as a tool for collecting data from 400 households living in Rai Khing Municipality, Sam Phran District, Nakhon Pathom Province, and analyzed using statistical software.

FINDINGS

1. Characteristics of data sample Most of them are female (53.00%), the oldest is between 35-50 years (38.00%), most have lower secondary education (38.60%), are trading / private businesses (35.80%) are engaged in agriculture. (29.80%) are mostly Buddhist (44.20%) have married status (55.80%) and have lived in the community for more than 10 years (61.50%)

2. Awareness of surface water quality monitoring. The results of the study revealed that the overall awareness of surface water quality surveillance was at a high level (average 3.51). When considering each aspect in order of importance, it is found that the people are aware of the use of chemical fertilizers for agriculture will have the highest impact on water quality (average 3.82), followed by contaminated waste in the water source Will degrade water quality Could not be utilized (average 3.76) while the least awareness was Closing the floodgates from the branch canal connecting the Tha Chin River Will slow down the flow of water And will result in water quality deteriorating (average value 2.70)

3. Public participation in surface water quality monitoring the results of the study revealed that people participated in surface water quality monitoring. The overall image is at a low level. (Total average value 2.37). When considering each category, it is found that the people are involved in the planning. Had the highest mean (average 2.53), followed by participation in finding problems and causes (mean 2.45), benefit sharing (mean 2.34), implementation of the plan (average 2.28) and monitoring and evaluation (mean 2.23) in which all levels of participation were at a low level.

DISCUSSION

From the study, it is found that the people are aware of the overall surface water quality monitoring at a high level, but the participation of the people in the surface water quality monitoring is at a low level. This may be because people living in the municipality of Rai Khing Profession in a variety of businesses such as trading, private business, farming, fishery, civil service work, factory work and general employment. This diversity of occupations may cause people to not have enough time to participate in monitoring the surface water quality of the community. In which agencies and related persons such as Community Development Department Rai Khing municipality should think of ways to raise awareness of the importance of surface water quality in Rai Khing municipality which is an important water source in the consumer. This method of raising awareness of the importance of surface water quality must cover all target groups with different occupations in all areas.

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REFERENCES

- [1] Jeamponk, P. (2014). *Community Environmental Management*. Bangkok: Suan Sunandha Rajabhat University.
- [2] Niemmanee, T. (2018). *Sustainable Community Environmental Management*. Bangkok: Suan Sunandha Rajabhat University.

- [3] Milinthajinda, P. (1999). *Awareness of Sub- District Municipality officers towards environmental problem: a case study of Phetchaburi Province* (Master Dissertation), Kasetsart University. Bangkok.
- [4] Namnakorn, O. (2007). *Local awareness towards forest resource conservation: a case study of Maiya Sub- District, Mengrai District, ChiangRai Province* (Master Dissertation). National Institute of Development Administration. Bangkok.
- [5] Khaophon, W. (2008). *Knowledge, participation and awareness of employees working in ISO 14001- certified companies towards environmental management: a case study of Chanthaburi Seafood Company Limited and Chanthaburi Frozen Foods Company Limited* (Master Dissertation). National Institute of Development Administration. Bangkok.
- [6] Jeamponk, P. (2015). *Enhancing awareness of participatory in the cleanliness of the community: The case study at Suanluang Sub-District, Amphawa, SamutSongkram province*. Bangkok: Suan Sunandha Rajabhat University.
- [7] Boonyindee, P. (1993). *Awareness of district chiefs towards formulation and implementation of development plan*. (Master Dissertation). National Institute of Development Administration. Bangkok.