

Participation of Environmental Management in Thailand

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ABSTRACT

The environment is everything that surrounds human beings both living things and non-living things are importance to human life. It is a connected and interrelated system. As the population of the world increases, the demand for resources increases accordingly causing a variety of environmental impacts both directly and indirectly, such as overflowing garbage, water pollution, air pollution, and dust. Responsibility for the environment is the duty of all citizens by cooperation between the government and public sector to enhance knowledge, understanding, create consciousness of the environment, change lifestyle behaviors in the same direction. It will be able to solve environmental problems sustainably.

Keywords

Participation, Environmental Management, Thailand

I. INTRODUCTION

At present, the increase in average population around the world tends to increase and the increasing population means the need to use natural resources to sustain life is also increasing together. With the rapid economic growth, there are many direct and indirect environmental problems and although the majority of consumers have a negative attitude towards the direction of environmental problems. But at the same time, more and more people are aware of the importance of the environment, become more alert, and take care of nature conservation, such as reducing pollution, conserve natural resources protect wildlife or adjusting behaviours in daily life that can help reduce the overall impact on the environment in the year 2022, environmental problems was seen as a very important issue. Most Thai people are aware of environmental preservation. It starts with making small behavioural changes in daily life. The most popular thing to do is refrain from supporting illegal trading or consumption of forest products, reduce household electricity usage, such as turning off lights or air conditioners when not in use, watch TV as a group/with the rest of the family, use more cloth bags or reusable packaging, separate waste, or other personal matters that everyone can follow every day [1] environmental problems in Thailand that are chronic problems. And accumulated for a long time, such as the garbage problem that occurs in big cities water pollution problem air pollution problem arising from industrial plants and large urban communities. The problem of pesticide residues in food and the environment and the problem of degradation of freshwater sources caused by deforestation for agriculture, the expansion of communities and cities, the problems with water quality deterioration, the problem of degradation of marine and coastal resources, and the problem of deforestation or encroachment on reserved forest areas soil degradation problem. Therefore, environmental responsibility is everyone's responsibility. If everyone cooperates in

changing behaviour in the same direction, it will be able to solve the environmental crisis that has been a long-standing problem.

The Ministry of Education has recognized the importance of the environment. Therefore, it has been defined in the education management strategy to enhance the quality of life that is friendly to the environment to promote learning to create awareness of environmental preservation including courses learning resources. And learning media that promotes a quality of life that is friendly to the environment [2] with the aim of educational institutions to raise awareness of participation in environmental conservation of learners. Because the environment is a natural source of learning. Educational institutions can be used in the learning management process enable students to actually take action. It affects the quality of learning very well. This is in line with the 20-year national strategic plan on creating growth based on environmentally friendly quality of life and the National Education Act which mentioned that the government should prepare all areas to be learning environment like zoo, public park, botanical garden science and technology park sport and recreation centres, resources and other learning resources adequately and efficiently. It can be said that the government wants learners to learn from a variety of learning sources including learning resources from nature and the environment by inserting into the curriculum of the educational institution through the teaching and learning process for students to learn the benefits encouraging students to have a sense of love for the environment and the feeling of wanting to participate in protecting the environment for a long time in this article, the author will present the content on environmental management, problems and effects and participation in caring for the environment to create knowledge, understanding and instil awareness of environmental conservation which will be beneficial to society and the next country.

II. ENVIRONMENTAL MANAGEMENT

Environmental management is the same as conservation but the difference is that environmental conservation is like a theory and principle without a plan of action. The word environmental management is a term having a practical meaning. Environmental management is a process being controlled by environmental mechanisms and have a systematic operating procedure. Environmental management can therefore be accepted in practice and according to scientific principles in all respects as a comprehensive environmental action plan measure. It is the use of natural resources and the environment within the environmental system by adhering to the principles and methods of conservation which users must realize that there must be natural, resources and the environment for humanity to continue. Environmental management is a method of ecological development, practice or sustainable development, that is, environmental management is the principle that allows the use of resources but must not cause loss of ecological values. [3]

Environment is everything that surrounds human beings, both animate and nonanimals including concrete and abstract influences connected to each other as a factor in supporting each other. The impact of one factor will inevitably enhance or destroy another. The environment is a cycle and the cycles involved throughout the system. The environment can be broadly divided into two parts:

1. Environment that occurs naturally everything around humans occur naturally. Can be subdivided into 2 types:

1.1 Living environment (Biotic Environment) takes a short time to occur and can increase the number of replacements. At the same time, it can be lost if nature is destroyed to lose balance, such as forests, animals, grasslands, etc.

1.2 Abiotic environment or Physical Environment that may or may not be visible, such as air, sound, minerals, etc., is an environment created by nature. Some species take a long time to be born so long that they cannot wait to take advantage of the environment such as fuel, minerals, soil, stone, water, air, etc.

2. Man-made environment is created by man either intentionally or unintentionally, or visible, tangible, or invisible and intangible. It is an environment created by human beings to satisfy their own needs which will help humans live happily better quality of life can be subdivided into 2 characteristics.

2.1 Physical environment is a visible and tangible environment created by human beings to facilitate and satisfy their own basic needs, including food, housing, clothing and medicines, etc.

2.2 Social environment is abstract. Man-made for orderly coexistence in society, such as traditions, rules, regulations, laws, etc. In addition, it may refer to beliefs, religions, rituals, etc. [4]

It can be concluded that environmental management is a systematic process with mechanisms and systematic procedures according to scientific principles. Environmental management is one approach to ecological development practices or sustainable development. The environment can be broadly divided into two parts: the environment that occurs naturally and man-made environment.

III. ENVIRONMENTAL ISSUES

Natural resources and the environment in Thailand are deteriorating. Part of this is due to rapid economic growth causing various environmental problems as mentioned above. If you begin to seriously study the problem, you will find that in addition to economic growth lifestyle. And human consciousness in using resources is also an important factor that causes environmental problems as well. In this topic, the author gives examples of environmental problems that affect the quality of life and damage the economy as follows:

1. Solid waste problem

Economic expansion and increasing technological advancement including the increase in population resulting in the production of goods and packaging in various forms many to meet the needs of the population resulting in leftovers such as packaging and things that are more than necessary and do not want to be left behind discarded in the form of solid waste. This is a major cause of environmental pollution problems that are becoming more and more serious affecting the quality of the environment in various aspects such as soil pollution, water pollution, air pollution and public health issues. Today, most municipal waste is collected on the ground and allowed to decompose naturally or may use the incineration method resulting in continuous smoke and dust problems, followed by the Office of Natural Resources and Environmental Policy and Planning (2022) [5] said that in 2021, the amount of solid waste generated in Thailand was about 24.98 million tons, only 9.28 million tons, or about 37%, only that has been properly disposed of, and reused 7.89 million tons or 32%.



Figure 1 Problems of pollution from garbage

2. Water pollution problems

Water is an essential factor in human, animal and plant life and is used in households and agriculture industrial. Problems from water pollution can occur for a variety of reasons, both from community sources from industrial factories that secretly release untreated wastewater into water sources or caused by agricultural areas that use pesticides causing residues on plants and soil surfaces. When it rains and carries toxic residues into rivers and canals, it can cause water pollution as well, [6] caused by toxins can cause immediate death of fish and other organisms. As for the waste water caused by the depletion of oxygen in the water, it may destroy the plants and small aquatic animals that is food for fish causing the fertility or food source of aquatic animals to decrease. It is also a source of disease outbreaks such as cholera, dysentery and diarrhoea in the agricultural sector, affecting cultivation. Because acidic and alkaline waste water is not suitable for farming. It also affects the scenery and the stench from the rotten water.



Figure 2 Water pollution problems

3. Air pollution problems (PM 2.5 dust)

Air is considered one of the basic physical needs for human survival. At the beginning of 2019, Thailand has a dense dust phenomenon. PM 2.5 dust, or its full name, is Particulate Matter with a diameter of less than 2.5 micron. It is less than 2.5 microns in size and can pass through the filtration of nasal hairs and enter the innermost layers of the lungs. No acute harm to the body but can act as an intermediary to carry other substances can enter the lungs, such as carcinogens, heavy metals, etc. The cause of PM 2.5 dust is exhaust emissions from cars or from traffic arising from the combustion of diesel fuel environmentally, unfriendly fuel combustion especially coal, incineration of waste materials from the agricultural sector to prepare for planting, burning forests and burning waste, which if during the period when there is no wind blowing. Dust will accumulate until it can be seen clearly. In addition, air pollution is caused by various activities in the household as well like smoking burning incense using a copier. [7]



Figure 3 Air pollution problems

It can be concluded that environmental problems occurring in Thailand such as garbage problems, water pollution problems, and air pollution problem. Most of them are caused by human neglect, don't give importance Causing damage to occur, problems are all affecting the lives of human beings in all dimensions. Which in the long run may become more severe, requiring a long recovery period before returning to the original state.

IV. ENVIRONMENTAL MANAGEMENT CONCEPTS: PUBLIC PARTICIPATION PRINCIPLES

Participation is a process in which individuals or stakeholders have the opportunity to express their views and participate in various activities that affect livelihoods including the aforementioned opinions are taken into consideration, set corporate policies and decisions. Participation is an open communication process. It is a two-way communication both formal and informal and not official which consists of sharing information together between stakeholders and to promote social unity. This is because

participation increases the quality of decision making, reducing costs, wasting time builds consensus, and make it easy to implement [8] from the harsh situation of the environment. The government has given importance to by strengthening and supporting local people to take part in the management of natural resources and the environment in clear steps. Along with adjusting attitudes and increasing the scope of authority of relevant government agencies to have the ability to fully support the local community. The government sector is responsible for supporting policies and budgets, participate in the follow-up decision-making process. As for the people, the people participated in analyzing the causes of the problems, making plans and solving problems, use a collaborative process, learn from each other's experiences and abilities.

People participation approach is a principle for sustainable management of natural resources and the environment is the participation of everyone. Is it based on the fact that all humans on the planet benefit from the environment? Therefore, when there is any problem with the environment even if there is a direct or indirect human cause. Human beings are responsible for solving such problems in some way. Because our world is only one, the impact that occurs on the earth will not be able to solve the problems that different people can do again. Everyone must join hands, join forces, and unite in order to preserve our one and only world to last forever. This principle is consistent with the idea of Bruce Mitchell saying that the heart of natural resource and environmental management is the use of human development processes and the potential of people and communities for development including the participation of the people being important. In terms of the goals of management for sustainable development, namely proposed seven important principles for natural resource and environmental management planning. [9]

1. Ecosystem Approach: Human beings are part of an ecosystem and need to be considered intertwined having an understanding of the relationship and effect of actions on natural resources and the environment.

2. Principles of sustainable action resources are limited; it is necessary to study their suitability and intelligent management balancing economic needs.

3. Participatory methodology; the Participative Approach allows the public to make informed decisions through an open process. There is a system for exchanging information and participate in the preparation of various plans and projects.

4. The principle of emphasizing the problems of the people in the area (People-Oriented Problem) focus on the real problem making an integrated plan and provide guidelines for those responsible for project management.

5. Principles of appropriate management (Adaptive Management) make decisions based on correct information. There is coordination and adoption of new ideas following up evaluation, being adaptable to situations and continuous action.

6. Principle of equality (Equal Emphasis) gives importance to all factors.

7. Principles of future orientation (Future-Oriented); Planning must have long-term goals having a broad vision and being a mutual agreement from all parties involved.

It can be concluded that the concept of environmental management relies on the principle of public participation being a process that must be carried out in parallel between the public sector and the private sector. The government sector is the supporter of policies and budgets, while the private sector is involved in problem analysis and plan together. There is a goal of management for sustainable development.

V. A CASE STUDY OF AO TRAT MANGROVE FOREST

Trat province was given the geographical nickname "Fon 8 Sun 4" because the city has a long rainy season of 8 months and only 4 months of sun exposure. Trat bay consists of 8 sub-districts: Huang Nam Khao, Ao Yai subdistrict, Chamrak subdistrict, Ta Kang subdistrict, Tha Prik subdistrict, Nong Khan Song subdistrict and Noen Sai subdistrict. At present, they are so fertile that they are regarded as the model areas of other places. There is part of the area next to the coast of Trat bay. There are complete mangrove forests at the top of the province, with a total area of 6,596 rai.

Back in the year 1985-1986, there were investors who came to ask for a concession in the mangrove forest area to build shrimp ponds and cut wood in the forest to burn it for charcoal for use in business because he thought that when mangroves were burned as a fuel that gave high heat. The group of venture capitalists expanded the area from Laem Ngop district to Mueang district causing the forest condition to decrease almost completely and spread continuously. The situation became more serious, the villagers could not enter the area to eat as usual. Because he was threatened by the capitalist that it was an area whose owner prohibited other people from entering.

From such problems, it makes villagers aware of the impact on the environment in their communities. Therefore, collecting the problem and various impacts that occur, including joining the list of villagers in many sub-districts delivered to the government to end the problem to protect, preserve the mangrove forest to remain with the community. As a result, one month later, the group of capitalists moved the machine and eventually revoked the concession. All of that was left and was to see only the dilapidation and deterioration of mangrove forests.

In 1991, the forest area began to be developed by planting more every year, along with establishing the first mangrove forest conservation group in 2005 and continuously rehabilitating until 2007, the sea and coastal protection volunteer group was established as a coalition to monitor and preserve forest areas from illegal logging. As a result, the area of mangrove forest increases every year until it is sufficiently usable for the people and has been selected as a model community that can manage natural resources perfectly. [10]

It can be concluded that the management of environmental problems occur requires the participation of people in the community. People in the community must be unity, cooperate and must have knowledge, understanding and awareness of the importance of the environment which will be the foundation for true success.

VI. PROMOTING PARTICIPATION IN ENVIRONMENTAL MANAGEMENT

Environment is an important fundamental factor that human beings have used in their lives. Environmental degradation and pollution problems often affect human livelihoods cause loss of life and many assets. Promotion of participation in environmental management should start from educational institutions which is the beginning of the source of knowledge. Each educational institution has determined to comply with the curriculum standard framework of the Ministry of Education by inserting and adapted to suit each local context differently. Its main purpose is to make learners change for the better in protecting conserving natural resources and the environment through the teaching process in the classroom and outside the classroom. There are activities to develop learners to have complete, clear concepts in environmental management, creating good attitudes which instills in the learners a conscience and would like to participate in environmental management which will be important to the restoration of the natural resource base and the country's environment is sustainable. However, the government should promote the learning process for the people in terms of participation and environmental management process by organizing activities to promote correct knowledge and understanding, develop the potential of facilitators in the community and provide effective support. It should also provide support to find a place, operating budget as well as providing media and materials necessary for the environmental management process, clarify public relations to create knowledge and understanding to the public continuously.

CONCLUSION

Environmental problems in Thailand that are chronic problems. And accumulated for a long time, such as the garbage problem that occurs in big cities water pollution problem air pollution problem arising from industrial plants and large urban communities, the problem of pesticide residues in food and the environment, the problem of degradation of freshwater sources caused by deforestation for agriculture, the expansion of communities and cities, problems with water quality deterioration, the problem of degradation of marine and coastal resources, the problem of deforestation or encroachment on reserved forest areas soil degradation problem. Therefore, environmental responsibility is everyone's responsibility. If everyone cooperates in changing behavior in the same direction, it will be able to solve the environmental crisis that has been a long-standing problem. The concept of environmental management based on the principle of public participation. It is a process that must be carried out in parallel between the public sector and the public sector, and plan has a step-by-step process. This should start from an educational institution, develop students to have good attitudes, cultivate students to have a conscience and want to participate in environmental management, promote the learning of the people to have a correct understanding, summary as shown in figure 3.



Figure 3 Thailand's participation in environmental management

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