THE BEST PRACTICES OF ENVIRONMENTAL MANAGEMENT OF SUB-DISTRICT ADMINISTRATIVE ORGANIZATION OF PHITSANULOK PROVINCE

ATCHARA SRIPHAN

Faculty of Education, Naresuan University, Tambon ThaPho, Amphoe Muang, Phitsanulok, 65000
E-mail: atcharamay@hotmail.com

Abstract - The objectives of this research is to analyze, synthesize the knowledge and the best practices in environmental management of sub-district administrative organization of Phitsanulok province. This article is a partial of the research "Environmental Management Knowledge and Practice Transfer Process to Sub-District Administrative Organization of Phitsanulok Province. The study is a qualitative study. Data are collected through in-depth interviews, participatory observation, and non-participatory observation. Content analysis is used in data analysis. Methodological Triangulation is used to test the reliability of data. The research found that three of important environmental issues of Phitsanulok are the problem of waste management, the use of community forests, and the system of water management. Hence the most important knowledge and best practices of environmental management of Sub-District Administrative Organization in Phitsanulok Province are participatory and comprehensive waste management of Noen Maprang District and Chat Trakan District, participatory community forests management of Wat Bot District, and the system of water management (Bang Rakam Model) of Bang Rakam District.

Keywords - The best practices of environmental management, Environmental management of local organization, Participatory environmental management

I. INTRODUCTION

The most important policy of decentralization to the local administration in Thailand is mission transferred from central to local administrative organization.These mission are public services. Environmental management is the important missionHowever, the big problem from the past is participatory environmental management .Thai communities are still familiar with government environmental management.

At present, government agencies and local administrative organizations (LAO) in Thailand are facing a waste management problem. This is linked to an increased amount of waste caused by population growth and socio-economic development.The lack of proper hygienic waste management has resulted in problems such as germ contamination, intrusive odor, leachate contaminating surface and groundwater, as well as environmental impact on the surrounding areas of landfills. In many communities around the country, people have opposed the LAOs' waste management approach. (Samonphon Sutthibak, 2019) In 2016, Thai households recycled only 21.47 percent or 5.81 million tons of the country's total amount of solid waste (27.06 millions tons). About 0.6 million tons of biodegradable household waste was reused for different purposes.The government has made new efforts to issue waste management rules and guidelines for local authorities to follow. In particular, there is an operational framework as part of the community solid waste management plan called "Clean Province" Action Plan (2019). This framework focuses on managing waste at three levels: the source, mid-way, and final destination.Starting from waste management at the source, this step focuses on reducing and separating solid waste by applying the 3Rs principle: reduce, reuse, and recycle. In the past, the LAO waste management efforts at the source had focused solely on solid waste recycling.To promote this initiative, various projects were started, such as community garbage bank projects, waste exchange for eggs or household goods, zero waste initiatives and others. .(Samonphon Sutthibak, 2019)

In Phitsanulok province, work plan for mitigating short-lived climate pollutants (SLCPs) the municipal solid waste sector through improved waste management in Phitsanulok,

ganized a participatory workshop to enhance active discussion among municipal staff on how to further improve solid waste management in Phitsanulok. The proposal from the participants of that workshop can be summarized into eight main tasks: (Phitsanulok Municipality, 2019)

1) mainstreaming 3Rs and community-based waste management
2) improving waste collection efficiency and fuel use
3) increasing organic waste separation and processing for utilization
4) increasing utilization of post-MBT waste to achieve zero-waste landfill
5) promoting non-burning practices generating biogas from leachate for energy use
7) improving accounting system of SLCP emissions from MSW management
8) to be a learning center for SLCP emissions reduction from MSW in Thailand and Asia

Although Phitsanulok to succeed in waste management, but still faces many other

environmental problems such as forest encroachment The problem of water management, etc. For this reason, I did research on this point. I would like to disseminate the best practices in environmental management by the community for communities applied appropriately.

II. RESEARCH QUESTION

1. What is the present practice of environmental management of sub-district administrative organization of Phitsanulok province?
2. What is the best practice in environmental management of sub-district administrative organization of Phitsanulok province seems to have the most promise for practice, research, and national policy in Thailand?

III. OBJECTIVE

The objectives of this research is to analyze, synthesize the knowledge and the best practice in environmental management of sub-district administrative organization of Phitsanulok province.

IV. METHODS

This research studies used multiple research methods. To deal with this complex issue, research itself was divided into 6 steps:

1. select a location from 93 sub-district administrative in 5 district of Phitsanulok province
2. collect both secondary and field data by community survey, participatory and non-participatory observation, individual and group interviews of community' leaders about environmental management and share information with selected communities
3. analyze and synthesize that both of quantitative and qualitative data
4. analyze and synthesize the knowledge and the best practice in environmental management of sub-district administrative organization of Phitsanulok province.
5. disseminate the best practices to *broader society*

V. RESULTS

The research found that three of important environmental issues of Phitsanulok Province are the problem of waste management, the use of community forests, and the system of water management.

1) The problem of waste management

It was found that there were several problems in waste management in Phitsanulok at that time which included (1) lacking of awareness about waste, (2) high amount of organic material in communities, (3) lacking of technological know-how needed for modern waste management, (4) lacking of cooperation among the concerned local authorities and central government departments, and (5) subsidizing system of waste management.

2) The use of community forests

It was found that there were several problems in the use of community forests in Phitsanulok which included (1) encroachment on community forests for their own benefit, (2) lacking of a system to manage the use of sustainable community forests, and (3) lacking of awareness about sustainable community conservation.

3) The system of water management

It was found that there were several problems in the system of water management in Phitsanulok which included (1) flooding in some areas, (2) lacking of water for consumption and agriculture, and (3) lacking of a system of water management.

Hence the most important knowledge and best practices of environmental management of Sub-District Administrative Organization in Phitsanulok Province are participatory and comprehensive waste management of Noen Maprang District and Chat Trakan District, participatory community forests management of Wat Bot District, and the system of water management (Bang Rakam Model) of Bang Rakam District.

1) Participatory and comprehensive waste management of Saiyoi sub-district administrative organization,Noen Maprang district and Chat Trakan sub-district administrative organization, Chat Trakan District

It was found that Saiyoi sub-district administrative organization, Noen Maprang district create participatory and comprehensive waste management model with using "integrative learning model".I called the model that "Saiyoi Environmental learning Model" The model included all educational form. They started environmental issues from school to entire community. The main key success factor of the model is the participation of the entire community to learn about the environment.As shown in Figure 1



Figure 1 The participation of the entire community to learn about the environment

Another interesting waste management is Chat Trakan sub-district administrative organization, Chat Trakan District. The waste management model is similar to that of Saiyoi sub-district administrative organization, that is participatory waste management with using integrative learning model. I called the model that " Bike for World". They started their environmental campaign. Youngers in community ride bicycle around community for campaign on waste management. After that all people in the community learned about waste management.As shown in Figure 2-3



Figure 2 Students presented the project



Figure 3 The waste management projects of the students

2) Participatory community forests management of Hin Lat sub-district administrative organization, Wat Bot district
It was found that the best practice for forests reservation is participatory community forests management of sub-district administrative organization, Wat Bot district.

The project started with invited people in the community planting in public areas 12 acres. After that created the appropriate system for community forests using. People in the community are helpful together to conserve community forests, because they get benefit from community forests.As shown in Figure 4



Figure 5 Hin Lat community forests

3) The system of water management (Bang Rakam Model) of Bang Rakam District
Bang Rakam was under floodwater for 141 days, making the district the worst hit of any nationwide.More than 200,000 rai of farmland in the district was inundated.
The floods ravaged nine districts in Phitsanulok province, damaging 680,000 rai of farmland, mostly paddy fields. The death toll in the province was 23 with 56,442 households affected (Chinnawat Singha, 2012). So people in Bang Rakam sub-district created the system of water management. They called that "Bang Rakam Model"
The model will serve as a pilot project to solve both flood and drought problems across the country through efficient water management.Bang Rakam rice farmers grow two crops each year. The first crop runs between November and March.After harvesting their first crop between March and April, the farmers immediately start growing the second crop, which is harvested between July and August every year.During that period, the Yom River often overflows its banks, causing huge amounts of water to flood rice fields in the district. Most paddy fields are often inundated for 3-4 months. After the floodwaters recede, the district is hit by drought between April and May.Facing an annual cycle of flooding and drought, residents were starting to despair of ever finding relief.

VI. CONCLUSIONS

The research found that three of important environmental issues of Phitsanulok are the problem of waste management, the use of community forests, and the system of water management. Hence the most important knowledge and best practices of environmental management of Sub-District Administrative Organization in Phitsanulok Province are participatory and comprehensive waste management of Noen Maprang District and Chat Trakan District, participatory community forests management of Wat Bot District, and the system of water management (Bang Rakam Model) of Bang Rakam District.

VII. CONTRIBUTIONS

The best practices of environmental management of

sub-district administrative organization of Phitsanulok province that is useful for practice, research, and national policy in Thailand discovered by this research is can be summarized in terms of a PPP concept. Practical learning at community level; Participatory action research; and Policy formulation at national level. As shown Diagram1

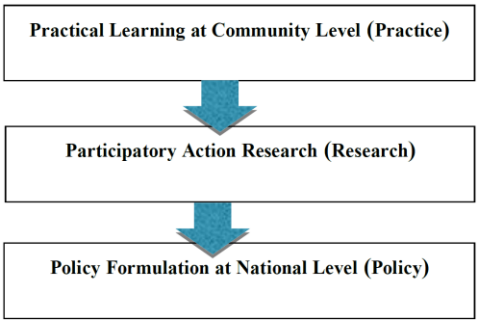


Diagram 1 Practices, PAR, Policy

REFERENCES

[1] Chinnawat Singha) .2012 .(The Bang Rakam model .From https//:www.bangkokpost.com/learning/advanced/284992/the-bang-rakam-model

[2] Phitsanulok Municipality) .2019 .(Solid Waste Management City ProfileFrom https//:www.waste.ccacoalition.org/sites/default/files/files/city_profiles/Phitsanulok-City%20Profile%20_CCAC%20FINAL_03072014_EF-JS.pdf

[3] Samonphon Sutthibak) .2019 .(How to solve Thailand's local waste management crisis . From https//:isaanrecord.com/2019/07/07/solve-local-waste-management-crisis/

★★★