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**Solid Waste Management Model Development Involving Public Participation
in Tambon Bungphra, Muang District, Phitsanulok.**

**Bussaba Hintow, Pragorne Iertsuwanpisal, Chadchawan Cinsakam
And Phatya Phothihung**

Phibulsongkram Rajabhat University

Author Note

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Abstract

The objectives of the research entitled "Solid Waste Management Model Development Involving Public Participation in Tambon Bungphra, Muang District, Phitsanulok" were: 1) to develop the model of solid waste management involving public participation, 2) to support the community's communication potential by the communication strategy involving participation for the solid waste management, and 3) to compare the behavior of solid waste management involving public participation between pre and post research. The subjects of this study were 342 family heads or family members and 12 Tambon leaders living in Tambon Bungphra, Muang District, Phitsanulok. The questionnaire was utilized and the data were analyzed by using percentage, mean and standard deviation.

The findings found that the solid waste management model involving public participation was classified into two levels: the family level and Tambon's level. For the family level, two bins are provided to every family. Recycled solid waste is separated and solid waste management should be eradicated properly. 2) For Tambon level, the steering

committee are set up to manage the solid waste disposal and campaign the continual waste separation. Solid waste carrying trucks should be provided adequately to meet the need of the community and the space for the solid wastes prior to the disposal should also be provided by means of solid waste disposal bins for the recycling purpose. It found that the public were highly satisfied with the 6 models of the communication potential support with communication strategy including study tour, media submission, discussion stage provision, solid waste disposal training, workshop on news distribution, and ad hoc media production. The comparison of solid waste management behavior involving public participation between the pre and post research was significantly different at the 0.01 level.

Key words: Model Development for Solid Waste Management, Public Participation,
Solid Waste

Phitsanulok is one of the provinces which has been affected from economic development in many facets e.g. industrialized problems, wastes which lead to the quality of life of the people in the rural areas. The unsystematic solid waste management leads to the dispute not only between the government sector and the public sector, but also community to community. The on going problems of the solid waste management of Phitsanulok has been spread out with no exception of Tambon Bungphra. From the problem mentioned above, the research team is interested in doing the research entitled Solid Waste Management Model Development Involving Public Participation in Tambon Bungphra, Muang District, Phitsanulok, which differs from the previous research which focused only on techniques, economic, social and environment plans.

Theoretical Background

Ideas and main theories include (a) the full cycle of solid waste management approach, (b) participation approach, (c) participation in solid waste management approach, (d) awareness approach, (e) awareness application approach and (f) communication and message opening approach.

Methodology

1. The study of solid waste management and evaluation of the solid waste management behavior by using questionnaire, data collection and data analysis.
2. Constructing the solid waste management model from the collected data and analysis for more details then drafting the model according to the needs of the people in the area.
3. Adapting the solid waste management model through public participation then experimenting the model and supplementing the communication potential through the participation of the people for the solid waste management.
4. Evaluating the satisfaction of solid waste management and comparing the pre-post solid waste management behavior.

Data

This research was a mixed research: qualitative and quantitative ones divided into 4 phases: Phase 1 was the study of solid waste management and the evaluation of the solid waste management behavior, Phase 2 was the construction of the solid waste management model, Phase 3 developing solid waste management model through public participation as well as experimenting the model and supplementing the communication potential through public participation for the solid waste management and Phase 4 Evaluating the satisfaction of solid waste management and comparing the pre-post solid waste management behavior. The target group was 342 head of family members who live in Tambon Bungphra and 12 leaders of the Tambon. The research instrument included questionnaire and focus group interview.

Findings

The findings found that the solid waste management model involving public participation was classified into two levels: 1) the family level. For the family level, two bins are provided to every family. Recycled solid wastes is separated and solid waste management should be eradicated properly, 2) Tambon level. For the Tambon level, the steering committee is set up to manage the solid waste disposal and campaign the continual waste separation. Solid waste carrying trucks should be provided adequately to meet the need of the community and the space for the solid waste disposal bins for the recycling purpose. It found that the public were highly satisfied with the 6 models of the communication potential support with communication strategy including study tour, media submission, discussion stage provision, solid waste disposal training, workshop on news distribution, and ad hoc media production. The comparison of solid waste management behavior involving public participation between the pre and post research was significantly different at the 0.01 level.

Conclusion

The solid waste management problem in Tambon Bungphra was moderately severe however, solid waste disposal needed to be urgently solved. The majority of the public preferred to minimize the quantity of waste from their originality, the need of solid waste separation before disposal, besides bins with covers and solid waste carrying trucks should be provided once each day. Due to the lack of budget, the solid waste management was so poor so the research team has opened for the public participation in solid waste management and allowed the public to experiment the model as shown in Figure 1 below which makes public alert and understand solid waste management better.

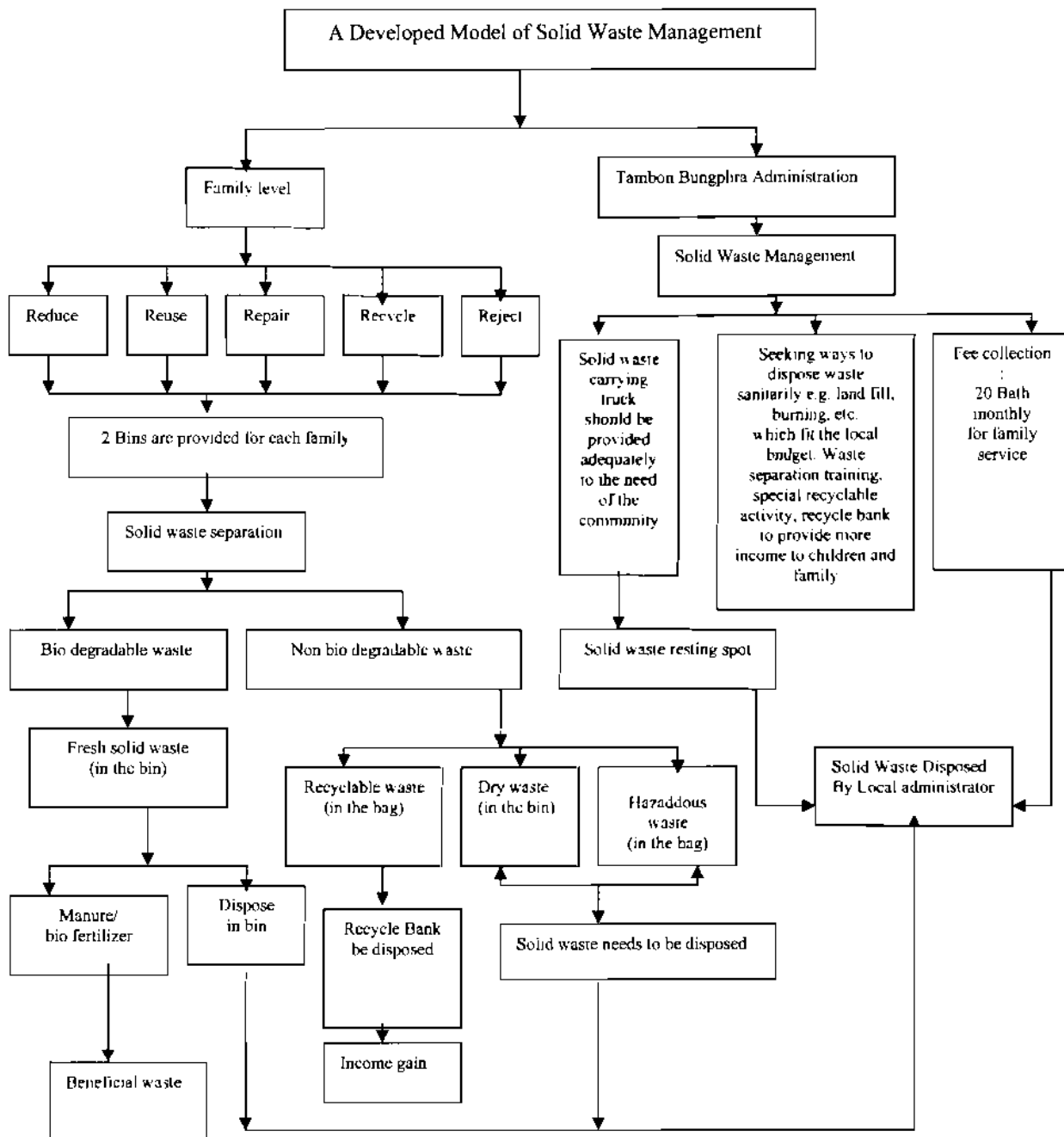


Figure 1 Model Development of Solid waste management from public participation of Tambon Bungphra Muang District, Phitsanulok

Research Recommendations

The interesting issue of this research was that the people of Tambon Bungphra preferred to dispose solid waste in heaves without realizing the separation of the solid waste which led to the hazardous waste, wet solid waste. The waste carrying trucks were so small that they could not handle the quantity of the waste, besides the narrow road hindered the unreachable areas. Then the burning of the waste was a must. Moreover, in terms of solid waste management, the Tambon Administration lacks the budget and public participation therefore, the research team has opened the opportunity for public participation in solving the solid waste management. Besides, model in solid waste management was constructed and implemented. The models were classified into 2 levels: family level, 2 bins were provided for each family, recyclable solid waste was separated and the rest was disposed properly. The Tambon level: the steering committee is set, the campaign of continual waste separation is conducted. Solid waste carrying trucks should be provided adequately to meet the need of the community and the space for the solid waste prior to the disposal should also be provided by means of solid waste disposal bins. After the implementation, the public were satisfied and the behavior of disposal was much improved. Their public's opinions and recommendations were as follows:

1. Public should work in group or set up the club to strengthen the community. Study tour in solid waste management should be organized for the ease study and benefit the community economy.
2. The Tambon Administration should often campaign the solid waste management activity e.g. recyclable waste for egg, recycle bank.
3. Related units should promote and provide knowledge how to reduce the quantity of waste to public by making manure or bio fertilizers for the agricultural purposes.

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