

# Evaluation Report

## Evaluation team

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## Abstract

This is an evaluation of the **“Turning One Person’s Trash into Another’s Treasure Project”**; which aims to promote the Zero Waste Village of Taluk moo to manage the community’s waste properly, to reuse and recycle their waste, as well as to create the Community Waste Fund that, in turn, generates income out of the community’s waste back to the community’s members. The project is supported by the mechanism of collaboration between the government sector, the private sector, and the civil society. The project allows participants to collaboratively finding the solution, making the decision, conducting the operation, and monitoring the operation result, regarding the waste sorting and the waste utilization; and extending the effort into the creation of a Community Waste Bank, which allows the reduction of the environmental issues and provides a sustainable solution for the community’s waste-related problems.

The evaluation reveals that the project achieved the aforementioned objects and presented solid results. In 2016, before the initiation of the project, Taluk moo Village generated approximately 144.6 kilograms of waste/month/household on average. After the initiation of the project in 2019, now these households merely generated 17.2 kilograms of waste/month/household. Therefore, the households were able to utilize and manage their waste appropriately, at 100 percent. The community’s members earned the additional income from the waste management and utilization at, on the average, 300-500 Baht/household/month. The people were highly satisfied with the project’s operation, at 98 percent. The project created the collaboration between 7 networks, namely, the networks of the housewives, the elderly people club, the village health volunteers (VHVs), the communal professional group, monks, the Community Development Department’s officials, and the youth. The evaluation reveals that 100 percent of the community’s members actively participated in the project. The project also created the Community Waste Fund and 15 model households of waste management. There were also 5 model households for organic waste management, that is, by using the food waste to feed the

earthworm, in order to produce the organic fertilizer from the earthworm's dung, whereas the fertilizer was used to fertilize the local vegetable garden. The project, therefore, also promoted the consumption of chemical-free vegetables and the reduction of the household's food expenses.

### **Executive Summary**

This is an evaluation of the "Turning One Person's Trash into Another's Treasure Project", with the aim to evaluate the context, the input variables, the process, and the outcomes of the project. The project was conducted at Talukmoo Village of Thap Than District, Uthai Thani Province. The evaluation was conducted by gathering the qualitative and the quantitative data, using a questionnaire and a data record form as the evaluation instruments. The data gathering was conducted in July of 2019, from the main data providers, namely, 25 community leaders, 225 villagers, the chief executive of the Subdistrict Administrative Organization, and 2 public health workers. The data were analyzed by the content analysis, the quantity, and the percentage.

The evaluation result reveals that.

**1. For the evaluation of the context** of Taluk moo Village – each household generated approximately 144.6 kilograms of waste/month/household on average. The majority types of waste found were, including, plastic bags, foam containers, empty containers of chemicals used in agriculture, battery, technological products, etc. Further analysis of the villager's problem revealed that these wastes were discarded at the community's waste collection spots. Such a waste management method, however, created a mess and a bad smell. This was because the people lacked the general knowledge of waste sorting at the source, as well as the ability to reuse or recycle some of the still useful wastes, for example, the plastic waste or the organic waste, especially the leftover food from the households. The people still lacked the general knowledge of how to utilize and manage the waste properly.

**2. For the evaluation of the input variables:** the evaluation reveals that, in terms of the resource used in the project, there were personnel resource, namely, the community leaders, teachers, public health workers, VHVs, staffs from the Subdistrict Administrative Organization (SAO), the Community Development Department's officials who worked in the village, and the community's academics. These key players served as the leading educators for the community. There was also a key player from the private sector, namely, the waste buyer shops, which bought the community's waste. Another resource used in the project was the budget, that is, a budget of 25,000 Baht allocated from the SAO and another budget allocated from the Thai Health Promotion Foundation (THPF) and the Community Waste Fund, for another 100,000 Baht.

**3. For the evaluation of the process:** the evaluation reveals that there are 2 important phases of the project's operation in this area, namely, the 1<sup>st</sup> phase (2016 – 2017), which was the origin of the project, as the community faced with the overwhelming amount of waste, whereas the village generated approximately 144.6 kilograms of waste/month/household on average. The community leaders recognized the severity of the problem and started promoting the people to sort their waste. This led to the creation of the Waste Sorting for Solving the Global Warming Issues Project, which promoted the people to sort their waste at a level. Another effort of that project was to promote the reduction of plastic bag usage, which was another factor that allows the village to clearly reduce its waste. The major advantage that supported the early successful operation of Talukmoo Village's project was the dedication of the community leaders, who encouraged the community's members to participate in the project. The project was also promoted and supported by the Subdistrict Administrative Organization of Nong Glang Dong District, as well as other key players, such as the community hospital, the Community Development Department's officials, and the private waste buyers that were located in the proximity of the community. However, though the 1<sup>st</sup> phase operation of the project did reduce the village's waste. The burden of managing the remaining waste still fell on the SAO of Nong Glang Dong District, which was responsible for placing the waste bins and collecting the waste. The 2<sup>nd</sup> phase of the project (2018 – 2019) was an expansion and improvement of the ideas learned from the 1<sup>st</sup> phase, whereas the focus was placed on 2 issues, namely, (1) the participation of every related player in the project, with the aim to solve the problem at the cause, to create a good environment for the community, and to initiate a sustainable operation, whereas the concept of outcome mapping was applied. And (2) the emphasize on educating the people and generating the feedback from the people, in order to collaboratively create the development plan with the local people, where the people participate in the determination of the project's goals, the planning, the determination of the community's rule, and for the people to constantly provide the feedback for the continuous evaluation and improvement. The activities conducted in the 2<sup>nd</sup> phase were, as follows: (1) the creation of the working committee, in the form of the village waste management committee. (2) The meeting of villagers, held by the working committee. (3) The education of waste sorting-related knowledge and the cultivation of the common sense of the community environment. (4) The waste sorting at the household/community level, and the waste utilization, whereas the people were educated on how to recycle and reuse the waste to create tools and ornaments for further selling. The cleaning and packing of plastic bags for further selling to the waste buyer that also provides an additional source of income for the household. As

well as the use of organic foods to feed the earthworm, in order to collect and use the worm dung as fertilizer for the household's vegetable garden and, in turn, to reduce the food expense and to promote the consumption of the chemical-free vegetables. (5) The creation of the Community Waste Fund. (6) The creation of the model village of waste management and the comfortable and clean home. And (7) the creation of the public knowledge exchange platform and the summary of the project's operation.

4. **The evaluation of the outcomes** reveals the following results, as per the evaluation indicators and instruments used, namely.

4.1 For the reduced amount of waste, the instruments used were the record form and the weight scale; whereas the waste was weighed in kilograms and the community leader weighed and recorded the amount of waste generated on the given record form.

4.2 For the income generated from selling or utilizing the waste; the instrument used was the record form.

4.3 For the percentage of people's satisfaction; the instrument used was the satisfaction evaluation questionnaire.

4.4 For the increased number of collaborative networks; the instrument used was the network number record form.

4.5 For the percentage of the member's active participation in the project; the instrument used was the participation evaluation form.

The evaluation result was, as follows.

1. In 2016, before the initiation of the project, Talukmoo Village generated approximately 144.6 kilograms of waste/month/household on average. After the initiation of the project in 2019, now these households merely generated 17.2 kilograms of waste/month/household.

2. The community's members earned the additional income from the waste management and utilization at, on the average, 300-500 Baht/household/month.

3. The people were highly satisfied with the project's operation, at 98 percent.

4. The project created the collaboration between 7 networks, namely, the networks of the housewives, the elderly people club, the village health volunteers (VHVs), the communal professional group, monks, the Community Development Department's officials, and the youth.

5. 100 percent of the community's members actively participated in the project.

The project also created the Community Waste Fund and 15 model households of waste management. There were also 5 model households for organic waste management, that is, by using the food waste to feed the earthworm, in order to produce the organic fertilizer from the earthworm's dung, whereas the fertilizer was used to fertilize the local vegetable garden. The project, therefore, also promoted the consumption of chemical-free vegetables and the reduction of the household's food expenses.

The Obstacles found during the operation, that is, at the beginning of the waste management, the project encourages villagers to discard their waste to the provided bins, whereas the SAO of Nong Glang Dong District was responsible for placing the waste bins and collecting the waste. In the beginning, even the amount of waste had somewhat reduced. However, some of the villagers still didn't recognize the waste-related problems and perceived such issues as the sole responsibility of the local governmental organizations. Therefore, the 2<sup>nd</sup> phase of the project aimed to adjust the people's recognition and knowledge about waste management, and encouraged the waste sorting at the source, the sense of responsibility to the community's environment, instead of merely receiving the government services without actually participating with the solutions. The project now focused on designing every activity to allow every player to participate at the very beginning, from the analyzing, planning, operating, evaluation, as well as to jointly enjoy the benefits. The project also reinforced the community's leaders. These improvements led to effective solutions and efficient waste management.

The influential factors of the sustainable development were, including, the collaboratively setting up of the goals among the community's members, solutions that emphasize on solving the problems at the causes, sufficient amount of available resources, the strong community leaders, the collaboration of the people, the continuous feedback, whether the positive or the negative feedback, for further improvement, the clear measurement of the outcome, and the efficient management.

### **Extension of the outcomes**

This project provides a learning source of waste management and becomes a model community for Uthai Thani Province and other provinces of Thailand, as the project was successfully implemented in over 18 communities.

### **The lesson learned**

The important lesson learned was "the collaborative waste management at the source", which is a solution that focuses on the source of the problem that

produces good outcomes. Also, the collaborative determination of the community's goal, using the outcome mapping, allows the project to be conducted with transparency and to acquire the clear – measurable results. The formation of the policy, based on the community's input, allows the policy to be implemented concretely, as well as reduces the problem of segregation of works, promotes the monitoring and governing system, as this project was the initiation and collaboration of every related party in the local community. Such a project also allows the people to participate in the designing and the determination of the policy, as they see the examples from the previous success. Further expansion of this project should cover the larger area, to the size of the subdistrict, the district, and the entire Uthai Thani Province. The methods and formats of the project can also be used for solving other problems of the community, for example, the promotion of chemical-free vegetable consumption, the solution of the road accident, etc.

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