



REPORT

ON

**Learning and Thinking Through Sufficiency Initiative
of His Majesty the Late King Bhumibol**

on

22 July 2017

LaemPhakBia, Petchburi province, Thailand

1. Project outline

Title: Learning and thinking through sufficiency initiative of His Majesty the Late King Bhumibol

Theme: An integrated natural system of wastewater and solid waste management with the mangrove forest restoration

Goal: To express the appreciation, support the adoption and promote recognition of the royal initiative that helps and strengthens the local communities in self-sufficiency, sustainable development and growth.

Specific objectives:

- To enhance the leadership and bonding through the social development activities among TIFA members;
- To foster the networking between TIFA, IF secretariat (DEQP), and Honda's CSR department;
- To learn from and contribute to the recognition of Royal initiative for self-sufficiency and sustainable development

Project duration: 22 July 2017 (1 day)

Beneficiaries:

Primary beneficiary: TIFA members and committees
Secondary beneficiary: Royally-initiated LaemPhakBia Environmental Research and Development Project, LaemPhakBia community members

Partner: The Chaipattana Foundation

Sponsor: IATSS Forum

Project team:

The project team includes TIFA President and Vice President, TIFA alumni members from 53rd to 56th batches.

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| 1. Ms. Worrawan Asawakun (Batch 5 th) | supervision and guidance |
| 2. Ms. Nisita Khongpaitoon (Batch 53 th) | budget management and project coordination |
| 3. Ms. Akareeya Ngamwongpaiboon (Batch 53 th) | communication and FB administration |
| 4. Mr. Sirapun Yongwattananunth (Batch 54 th) | general support |
| 5. Ms. Ratchada Arpornsilp (Batch 54 th) | community coordination |
| 6. Mr. Ukrit Karoonkorn (Batch 55 th) | communication products design and coordination |
| 7. Ms. Suthira Sangwan (Batch 55 th) | budget management and logistics |
| 8. Mr. Putagoon Hoonsadee (Batch 56 th) | TIFA coordination |
| 9. Ms. Suparindaporn Wongyara (Batch 56 th) | general support |
| 10. Mr. Natapol Thongplew (Batch 57 th) | general support |

2. Project background

In commemorated remembrance of His Majesty the Late King Bhumibol Adulyadej particularly throughout this year, TIFA would like to seize this opportunity to learn and share further his initiatives which have contributed greatly to the ideological notion and implementation of self-sufficiency economy and sustainable development in Thailand. In this project, an emphasis is made on the recollection and learning on an integrated model of environmental management especially, wastewater management, solid waste management and mangrove forest restoration with an insight on how leadership of the Late King can boost support in social transformation.

3. Project preparation

The project preparation entailed the following tasks and responsibilities:

Tasks	Duration
Discuss clear roles and responsibilities among TIFA committee members	Apr-May
Coordinate with external stakeholder	May-Jun
Coordinate with TIFA members, IATSS secretariat	Jun-Jul
Arrange for other logistics: transportation, etc.	Jul
Preparation and purchase necessary equipment and materials	Jul

4. Activities and results

4.1 Visit and volunteer in the LaemPhakBia Environmental Research and Development Project



The study visit started off with the brief overview of the LaemPhakBia Environmental Research and Development on the ideology and principles of its establishment. Considering the size and location, since 1990, the Environmental Research and Development Project has been initiated and piloted by the Chaipattana Foundation under the royal patronage. Its aim is to identify the solution to wastewater and solid waste management, using locally-affordable, practical and environmentally-friendly technologies in which the communities can use and scale up. The royally-initiated project has succeeded in developing an effective model and continued to this phase of publicizing and promoting the adoption of this technology in various contexts.

We learnt that the wastewater treatment technologies here begins with 18.5-kilometers closed bundle from Petchaburi municipality through Petchaburi River to the project site and nowadays, it can be treated all of wastewater generation in Petchaburi municipality area. The natural treatment systems are composed of 4 different kinds of wastewater treatment systems including

- 1) **Lagoon Treatment:** Principal of Nature by Nature process: Increasing oxygen in water by photosynthesis of algae, oxygen penetration due to different surfaces and bottom temperature and killing diseased by solar radiation.



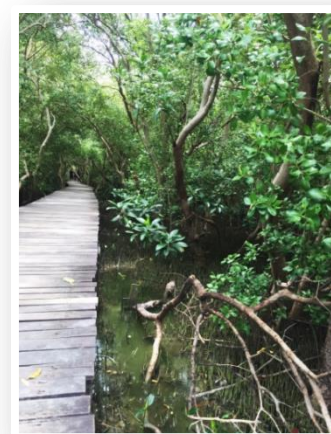
- 2) **Plant and Grass Filtration:** the wastewater is transported through plant and grass filtration in order to add oxygen produced by plankton and grass. Moreover, the biodegradation also occur in in soil and sand in the system by microorganism that can improve water quality before release to water body.



- 3) Constructed Wetland:** The collected wastewater from the community filtrate through selected plants including rounded beak and incense hermit to absorb the pollutants in wastewater as a nutrient for growth and release oxygen from plant roots and photosynthesis into water. Moreover, organic matter can be degraded by soil microorganisms. By product from this system can be used as a material for hand-made product of communities.



- 4) Mangrove Forest Filtration:** The collected wastewater is mixed with seawater for dilution and the proportion of them depends on concentration of polluted water. The organic matter can settle and degrade by microorganism in the soil. Furthermore, the mangrove root can filtrate and release oxygen to wastewater which is at which stage the water is of quality that can sustain the mangrove forest.



The system is integrated in a way that yields numerous benefits. The water treatment ponds can naturally feed fish and the treated water is supplied into agricultural fields. In addition, the bio-waste is used as fertilizer and the plant harvested from filtration treatment pond is used for paper fiber and basketry products.

Moreover, the breed of fish raised in the treatment pond is Tilapia. It should be noted that Tilapia fish is one of the best evidence of great friendship between Thailand and Japan Royal family. The history of tilapia farming dates to the 1960s, when then Crown Prince Akihito, who is also an ichthyologist, recommended the fast-breeding tilapia as a promising solution for food shortages in rural Thailand when he visited the country in late 1964.



He donated 50 specimens the following year, which were bred by King Bhumibol Adulyadej in a palace pond. The population exploded to 10,000, and their fingerlings were distributed to communities across the country through the intermediary of fisheries experimental stations. Crown Prince Akihito expressed his feelings about the spread of tilapia farming in Thailand in a 31-syllable “waka” poem that he released during the New Year’s Poetry Reading session in 1967.

“Lo, a couple of tilapia parents/ are seen taking turns/ to continue looking after their eggs/ laid on a glass wall,” the poem says, in translation.

From that period of time, there are about 280,000 tilapia aquaculture ponds across Thailand today which become a great source of protein for Thai people and for Thai fresh water fish farming industry.



After going around the project site to see all processes, we completed our visit at the mangrove forest to restore the broken walkway. We also got a chance to walk through the rehabilitated mangrove forest.



4.2 Visit to LamPhakBia Community

LamPhakBia Community is recognized as among the most active in the implementation of His Majesty the Late King Bhumibol's sufficiency economy. It is comprised of different livelihoods groups and the one which is led by the village chief is Kanghunting Sea Salt spa (Golden Windmill). This is the business model similar to the One Village One Product in Japan. But LamPhakBia community alone is known for many products, including seaweed, local desserts, sea salt, and ecotourism destination. As it is located along the gulf of Thailand, salt farming has always been the traditional livelihood. However, due to the changing pattern of rainfall which creates impacts on the cycle of sea salt harvesting, the value-added product and services are taken into account. Traditional Thai massage and spa products are agreed upon among the group members and therefore registered as the community enterprise business model. The products such as massage oil, sea salt facial and body scrub, flower of salt soap etc. have met the global standards and oftentimes been invited to showcase abroad and various media channels. Averagely 300 tourists visit Kanghunting Sea Salt Spa every week.





Before we had a test of community spa, we joined community representatives in tree planting. The Cassia fistula Linn or Golden Shower and marigold commemorated His Majesty the Late King.



5. Project budgeting

Item	Unit	Budget (USD)	Actual spending		Total (THB)
		IATSS Support	THB	USD	
Domestic transportation					
Van rental and overtime	Van	115.44	2,300.00	67.99	3,490.00
Petrol	Lumpsum/van	115.44	1,040.00	30.74	
Express way	Lumpsum		150.00	4.43	
Meal					
Lunch	meal	144.3	3,000.00	88.68	3,938.00
Snack and water	Lumpsum		938.00	27.73	
Materials					
Fish release for wastewater treatment	Package	115.44	2,000.00	59.12	11,833.00
Materials for mangrove forest walkway reconstruction	Lumpsum	173.16	2,000.00	59.12	
Materials for activity in community	Lumpsum	144.30	5,000.00	147.80	
TIFA t-shirt (proposed for cap)	Lumpsum	432.90	2,233.00	66.01	
Banner	Lumpsum	43.29	600.00	17.74	
Contingencies					
Souvenir	Lumpsum	230.88	480.00	14.19	2,540.00
Domestic travel for Mr.Natapol Thongplew, Bkk - Ubon Ratchathani	Lumpsum		2,060.00	60.89	
TOTAL BUDGET RECEIVED		1,515.15			51,256.00
TOTAL BUDGET SPENT			21,801.00	644.43	21,801.00
BUDGET BALANCE (870.72 USD)					29,455.00

Exchange rate: 33.83 THB = 1 USD (as converted from received budget)

6. Conclusion (key lessons learned and possible outlook)

- The project provided opportunity for TIFA to learn about sufficiency initiative of His Majesty the Late King Bhumibol at the local and community levels as well as to get together and build bonding/ connection across TIFA batches.
- The outcome on the voluntary action is rather ad-hoc although it addressed the needs of partner organization and community. In the longer term, TIFA should identify its interests and initiate a project that covers different phases of community engagement through a certain period of time. The community interventions and support, together with partnership and collaboration with relevant organizations can be sustained and strategized better in this direction.
- Activities of the Kanhuntong Sea Salt spa (Golden Windmill) village could consider as role model of sustainable community. It mobilize all resources in the local and let stake holders involve from the beginning. Beside project is all running by local people, it serve the coming ageing society in Thailand because most of massagers in the spa are elderly people.
- Logistics and project management
 - In the planning, it was expected to have representatives from DEQP and Honda's CSR department joined. However, due to other commitments, they were not able to partake this time. As a result, budget remains.
 - TIFA may consider other fund-raising activities/ initiatives in the future

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