

	management facility to treat for other institutions that do not have		
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For the implementation of the above improvement issues, the JICA Study Team proposed recommendations as follows;

### 3. Recommendations

#### 3.1 Implementation of the National Waste Management Plan

Almost all the local administrations are suffering from improper SWM practices and have not been able to find proper solutions by themselves. In order to improve SWM in the country, the Government of Thailand is formulating the National Waste Management Plan. Therefore, in order to implement the National Waste Management Plan, the governments should establish supervisory committees at the National, Provincial and Local Authority Levels in order to implement the plan. In order to find a way out of the present difficulty and smoothly implement the plan, the Team recommends the central government to conduct the following improvement measures:

1) **Establishment of National, Provincial and LA Level Coordinating Committees for the Implementation of National Waste Management Plan**

In order to implement the National Waste Management Plan, a coordinating mechanism at National, Provincial and municipality Level should be established. It is proposed that the National Coordinating Committee should be co-chaired by the Secretaries of the Ministry of Interior (MOI) and the Ministry of Natural Resources and Environment (MONRE). The Ministry of Interior (MOI), Ministry of Natural Resources and Environment (MONRE), Ministry of Public Health (MOPH), Ministry of Industry should be members of the Committee. The mandate of the Coordinating Committee is the coordination of the implementation of the National Waste Management Plan at National Level and provision of policy guidelines to facilitate the execution of the plan country-wide.

The National Coordinating Committee will decide policy guidelines for the improvement of SWM in local administrations and direct such guidelines to the national supporting centre through the Secretary of MOI.

In local administration level, the PAOs, municipalities and TAOs shall establish its Coordinating Committee for the implementation of the National Waste Management Plan.

2) **Establishment of a National Supporting Centre for the Improvement of SWM in Local Administrations (NSCISLA)**

Local authorities will not be able to improve their SWM by themselves in accordance with the National Waste Management Plan if the central government only sets up the SWM policy and only notifies it to the local

administrations. Since all the local administrations are suffering from improper SWM practices and could not find proper solutions by themselves, the need for the central government assistance to the local administrations is increasing day by day. Especially, securing a final disposal site and construction of a sanitary landfill are far beyond the current capability of local administrations. In order to ensure the local administrations actually implement the plan, it is quite important to have a government institution to consult with the local administrations regarding their problems in SWM and give technical assistance.

Taking all these into consideration, it is proposed that a National Supporting Centre for the Improvement of SWM in Local Administrations (NSCISLA) shall be established in order:

- To consult with local administrations about their problems on SWM and advise them on possible solutions; and
- To facilitate improvement of SWM in local administrations in accordance with National Waste Management Plan.

Further, it is proposed that this Centre be established under the Ministry of Interior which is the national level Ministry that coordinates and provides support services to decentralized administration in the country for local administrations.

The NSCISLA shall conduct the following tasks:

- Task 1:** Preparation of the policy guidelines for implementation in line with National Waste Management Plan and recommend them to the National Coordinating committee.
- Task 2:** Consultation with local administrations about their problems in SWM and advise on them possible solutions
- Task 3:** Promotion of 3Rs and proper disposal of solid waste to local administrations and dissemination of proper technologies regarding them
- Task 4:** Collection and studying the current SWM practices and its useful experiences in local administrations as well as those in foreign countries to prepare policy making tools to the National Coordinating committee, and provide practical improvement methods/measure to local administrations.
- Task 5:** Functioning as a focal point of international cooperation for SWM and a coordinating body for the effective cooperation.
- Task 6:** Strengthening SWM administrative capability of PAOs and LAs

The proposed structure of NSCISLA is presented as shown in Figure 5-1.

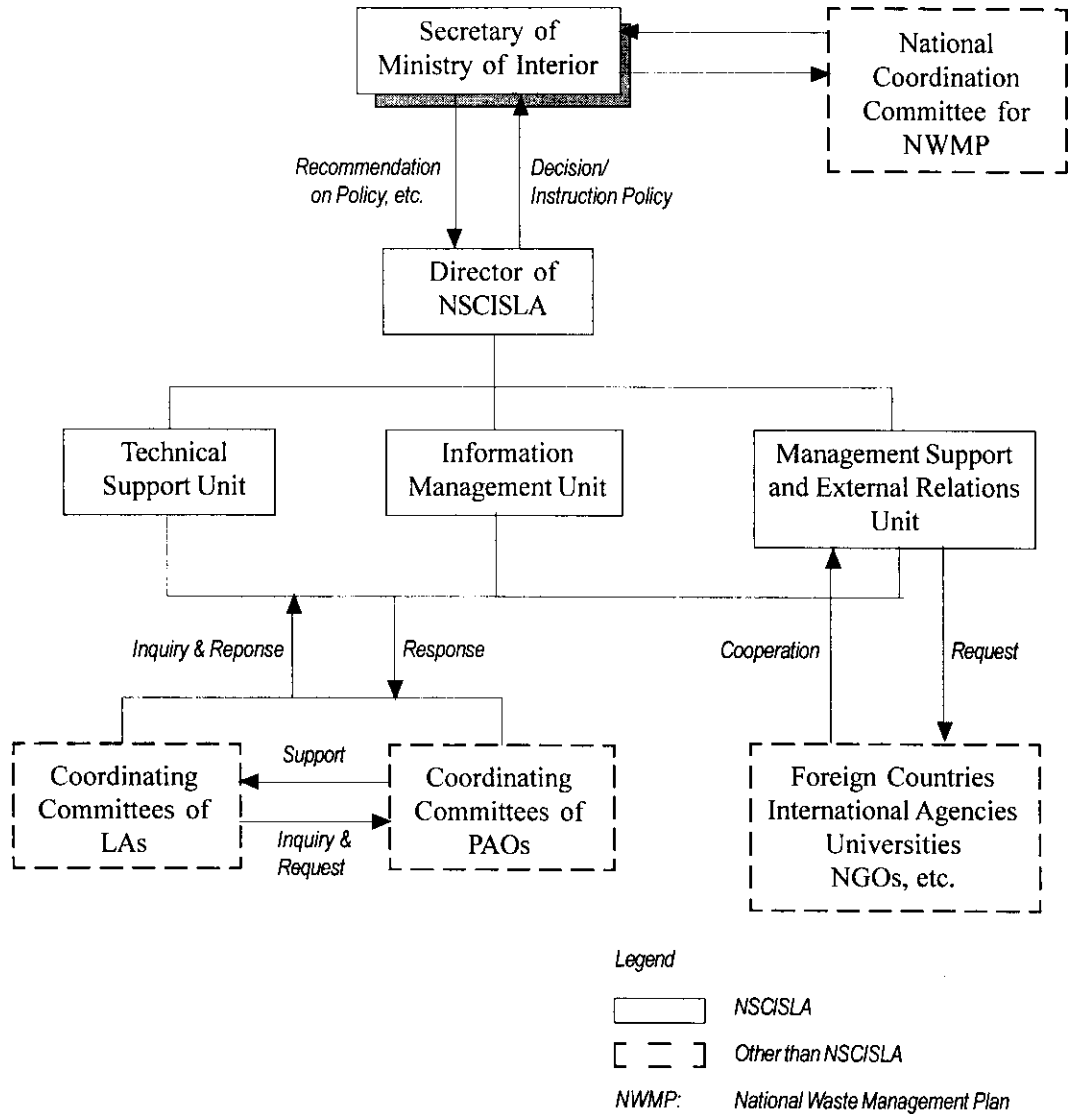


Figure 5-1: Proposed Organization of NSCISLA

The Centre will be under Ministry of Interior. The Secretary of the Ministry of Interior will make decisions and give instructions regarding policy issues of the Centre. Since the Secretary will also be the co-chairman of the National Coordination Committee for the implementation of National Waste Management Plan, the decisions and instructions regarding policy of the Committee will directly reflect to the policy of the Centre.

The Centre will be headed by a Director and under him there will be three units.

Although the Centre will be established under the Ministry of Interior, presently it does not have technical or manpower capacity to operate such a centre effectively. Therefore, it is suggested that necessary assistance be provided at the initial stage under a close cooperation with MONRE and/or a technical cooperation program of foreign funding agencies.

The roles and functions of each unit are described as follows;

**a. Director of NSCISLA**

The Director of NSCISLA is the Executive Head of the Centre. His main responsibilities are as follows;

- Preparation of the implementation plan in line with the National Waste Management Plan in collaboration with all staff members in the Centre and recommend it to the National Coordinating committee through the Secretary of Ministry of Interior
- Overall management of the Centre

**b. Technical Support Unit**

The Technical Support Unit is represented by a Deputy Director. His main responsibilities are as follows;

- Strengthening technical capability on SWM of PAOs and municipalities.
- Consultation with local administrations about their problems on SWM and advise them on possible solutions
- Promotion and assistance in formulation of SWM Master plan and Action Plan in each PAOs
- Establishment and dissemination of siting and planning procedure and method of SWM facilities, especially landfills
- Establishment of compost quality certification system to promote SW compost sales
- Strengthening enforcement capability of the PCD on SWM facilities, especially for landfills
- Supporting formulation of the recycling law
- Promotion and support to local consultants for SWM works

**c. Information Management Unit**

The Information management Unit is represented by a Deputy Director. His main responsibilities are as follows;

- Establishment of a SWM database for the country and supporting the establishment of it in each PAO as well as municipality.
- Establishment of a waste exchange database that will provide information of demand/supply regarding recycling products and mainly target the promotion of SW compost sales
- Collection and study on the current SWM (such as waste generation and recycling rate, waste composition, unit costs, etc.) and its useful experiences in local administrations

- Collection and study on the current SWM and various technologies applied in foreign countries
- Preparation of the policy making tools to the National Coordinating Committee by processing and analyzing the collected data
- Provision of useful information on practical methods/measures for the improvement on SWM in local administrations
- Provision of information on useful SWM technologies in Thailand
- Publication of books that introduces the activities of the Centre, the collected data, useful information on SWM, etc.

**d. Management Support and External Relations Unit**

The Management Support and External Relations Unit is represented by a Deputy Director. His main responsibilities are as follows;

- Strengthening administrative capability on SWM of PAOs and municipality
- Consultation with local administrations about their administrative problems on SWM and advising them on possible solutions
- Receive requests from local administrations for foreign aid on SWM, and prepare documents necessary to obtain such assistance and liaise with funding agencies.
- Coordination and cooperation with locally available external resources such as universities, NGOs, etc.
- Support MONRE for educating local administration members and relevant public officers in SWM and its importance for environment protection
- Support MONRE to establish a training course to educate SWM officers
- Establish a qualification system for SWM officers.

The relationship between the National Supporting Centre for the Improvement of SWM in Local Administrations (NSCISLA) and the National, Provincial and Local Authority Level Supervisory Committees for the Implementation of the National Waste Management Plan is presented in the Figure 5-2.

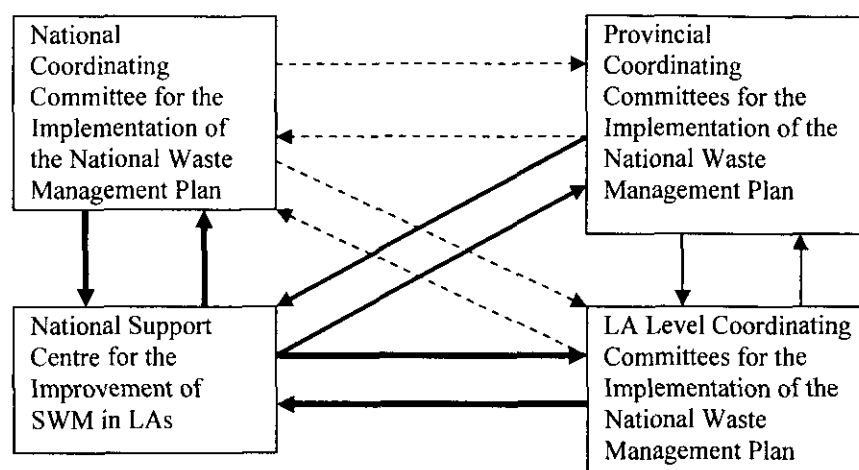


Figure 5-2: Relationship between the NSCISLA and LA Level Coordinating Committees for the Implementation of the National WM Plan.

As shown in the figure, the Centre (NSCISLA) will function as a core body for the actual implementation of the National WM Plan.

### 3) Preparation of Action Plan for the National Waste Management Plan

The National Waste Management Plan established the policy for the improvement of SWM in the country. In order to implement the strategy, the central government needs to provide action plans and guidelines on how to implement each component of the strategy, for instance how to raise the recycling rate. The Team, therefore, presents the government with some recommendations for how to realize the strategy below.

## 3.2 Promotion of Inter-municipal SWM Cooperation

### • Findings

Regarding the aspect of cooperation among local governments, the Team finds out as follows:

- a. Many municipalities in the country are facing extreme difficulty in siting urban sanitation facilities like landfills due to the very limited of its juridical areas and urbanization condition. Though to establish inter-LA cooperation is the most desirable solution for this problem, such cooperation for this subject is very uncommon. Because the LA, who has the landfill, does not accept waste disposal of other LAs. This is the main barrier for cooperation.
- b. The SWM problems in LAs differ from each LA. Some LAs are very critical, especially the high-urbanized municipality, while some may not feel any problem due to very less population density. Normally the LA, which could have possible sites for SWM facilities in its juridical area, does not face problems in its SWM. Therefore, such LA does not require any cooperation with other LA.

- c. On the other hand, the LA facing serious problems for its SW disposal could not initiate inter-LA cooperation for SW disposal since it may not have any suitable site for SW disposal within its juridical area.
- d. The inter-LA cooperation other than solid waste disposal such as joining public campaign together, giving knowledge about waste management to the school children in the district, etc. no LA is seriously interested in so far.

Based on the findings above, the Team concludes as follows:

- i) The inter-LA cooperation for solid waste disposal needs to promote urgently. However, it for the other aspects like campaign and education is not urgent.
- ii) It seems to be very difficult that LA(s) establishes inter-LA cooperation by them, even for inter-LA solid waste disposal. It requires an initiator who shall be a higher administration than municipality and TAO's level.
- iii) Once inter-LA solid waste disposal is established, the inter-LA cooperation other than solid waste disposal shall be done for the proper operation it such as waste reduction campaign, segregation of waste, etc.

- **Recommendations**

Based on the above mentioned findings the Team recommends the central government to take the following actions in order to promote inter-LA cooperation on SWM.

1. **Assigning PAO as Initiator for Promotion Inter-LA Cooperation on SWM**

Since most of local authorities in the country are extremely weak, it is very difficult for each LA to plan, construct and operate a proper SWM facility, especially a sanitary landfill. In order to promote inter-LA cooperation on SWM the central government shall assign PAO as an initiator for it.

2. **Strengthening of the Administrative Capability of PAOs**

In order to establish an inter-municipal SWM system, the role of PAOs, which will be to take initiative and coordinate local administrations for the location of inter-municipal SWM facilities, is quite important. The need for the construction and operation of inter-municipal SWM facilities will increase year by year. The central government shall provide support and instruction as follows to strengthen PAOs' capabilities to carry out their role in the administration of SWM.

- Provide support to strengthen the function of the coordinating committees at the Provincial level to implement the National Waste Management Plan
- Provide support in the formulation of a plan for the establishment of an inter-municipal SWM system at the PAO level
- Instruct PAOs to coordinate with the NSCISLA

### **3. Establishment of a Principle to dispose of MSW within the Juridical Areas of Local Administrations**

Many local administrations in the country are facing extreme difficulty in siting urban sanitation facilities like landfills. The situation of urbanized municipality is also serious and they have many disputes with their citizens regarding the construction of SWM facilities, especially landfills. To solve these problems the central government shall take the following measures:

- Instruct local administrations to establish a principle to dispose of municipal SW within their juridical area
- Require local administrations to include the location and plan of urban sanitation facilities like landfills in their urban development plans. Instruct local administrations that are not able to locate the facilities within their juridical areas, to establish an inter-municipal SWM system in coordination with PAO, municipality and TAO.
- Instruct local administrations to formulate a long-term SWM plan and improve their SWM in accordance with the plan.

### **4. Strengthening of Enforcing and Monitoring Capability for SWM in Local Administrations**

It is necessary to strengthen monitoring and enforcement functions for improper disposal in order to facilitate the implementation of the national strategies by local administrations, especially the proper disposal of SW. It is an urgent issue to establish a monitoring and enforcement system for improper landfills. In principle, the PCD should be responsible for this. It is, however, difficult for the PCD to take full responsibility by itself. Considering the very weak capabilities of local administrations on SWM, it is essential to establish a monitoring and enforcement system, which puts continuous pressure on local administrations to implement proper disposal. In order to establish the monitoring and enforcement system for improper landfill operation, the Team recommends the PCD to instruct local administrations to set up monitoring committees consisting of the following members:

- Local residents
- Interested NGOs
- Relevant authorities
- Staff and council members in the local authority

### **5. Provide Incentive (carrot) and Enforcement (stick) System**

From the promotion of the inter-LA cooperation on SWM, especially solid waste disposal, the central government shall provide an incentive (carrot) and enforcement (stick) system.

As for the incentives the central government may provide



- subsidies for the construction of inter-LA solid waste disposal facilities
- technical assistance and financial support for planning and operation of them
- establishment of a compensation system to the LA or its residents where inter-LA solid waste disposal facility locates

As for the enforcement the central government may carry out

- Strong enforcement to eliminate open dumping operation since financial and technical capability of LA is weak, it could not conduct a sanitary landfill operation, which requires a certain cost and technical knowledge.

### **3.3 Implementation of the 3Rs**

#### **1) Implementation of PPP**

The establishment of the Polluter (waste discharger) Pay Principle (PPP) in the country is indispensable to conducting the 3Rs and securing the proper disposal of waste discharged after the 3Rs. Since local administrations are responsible for municipal solid waste management and the cost of its management is covered by the municipal budget, i.e. tax, the dischargers are not encouraged to conduct the 3Rs due to lack of economic incentive to reduce the amount of waste discharged.

Many local administrations in Japan have recently introduced a waste collection fee system in order to promote waste reduction. Though the system slightly differs from each LA, the tariffs charged in the fee collection systems are based on the amount of waste discharged.

The Team recommends the central government to quickly implement the PPP for MSW as described below to implement the National Waste Management Plan.

- To instruct the local administrations to introduce a waste service fee system to facilitate waste reduction. For the implementation, the local administrations shall take a phased approach and the first step will be the introduction of tipping fees for landfills, and a waste collection fee for dischargers of large amounts of waste such as business enterprises.
- The Team concludes the main disposal method of solid waste in Thailand will be landfills in the future, at least this decade. In the case of landfill disposal, plastic waste hinders the proper disposal of SW, especially in terms of landfill operation and use of completed landfill. A very effective way to solve this problem is to promote the use of bio-degradable plastics. However, the very high price of bio-degradable plastics is a major barrier for its promotion. It is, therefore, recommended to establish a system to impose a certain cost for environmental pollution on users of non-biodegradable plastics.

## **2) Promotion of Reuse and Recycling (Promotion of Composting)**

In the above section, recommendations for waste reduction, the main policy of the Strategy, are presented. In this section the Team makes recommendations to the central government on the promotion of reuse and recycling.

The Study identified that conventional reuse and recycling systems are established and are very active in the private sector. In terms of reuse and recycling systems, what the central government should do first is to maintain and preserve existing systems as much as possible. The next step shall be promotion of the recycling of bio-degradable organic wastes such as kitchen waste and grass/woods, which account for nearly 50 % of MSW weight-wise. The third step, as a future issue, would be the promotion of reusable/recyclable products and the introduction of extended producer responsibility (EPR), which developed countries are very anxious to do today. In this section, the Team recommends methods for promoting composting to the central government.

In several countries, many local administrations are promoting the composting of MSW. Though there are a few success cases, in most cases composting of MSW is hardly successful. Based on past experiences, the Team recommends the central government to take the measures described below in order to promote the composting of MSW.

First, all concerned people in SWM should understand that a certain treatment cost is required for the operation of a MSW composting plant in addition to the income from compost (product) sales. The treatment cost should be covered by the reduction of the final disposal cost (amount). For the promotion of MSW composting, therefore, the government should enforce and instruct local administrations to stop open dumping operation and implement sanitary landfill, and make them understand a certain amount of money is required for the proper treatment/disposal of MSW.

In second the government should take the following measures to raise demands of compost from MSW:

- a. Conduct a market study of compost made from MSW and establish a database that provides information on the demand and supply of compost to both users and suppliers
- b. Develop a certificate system for MSW compost that guarantees its quality to users as shown in the figure below
- c. Set up reference laboratories by using the existing ones in universities, etc. in order to issue the certificate of the quality

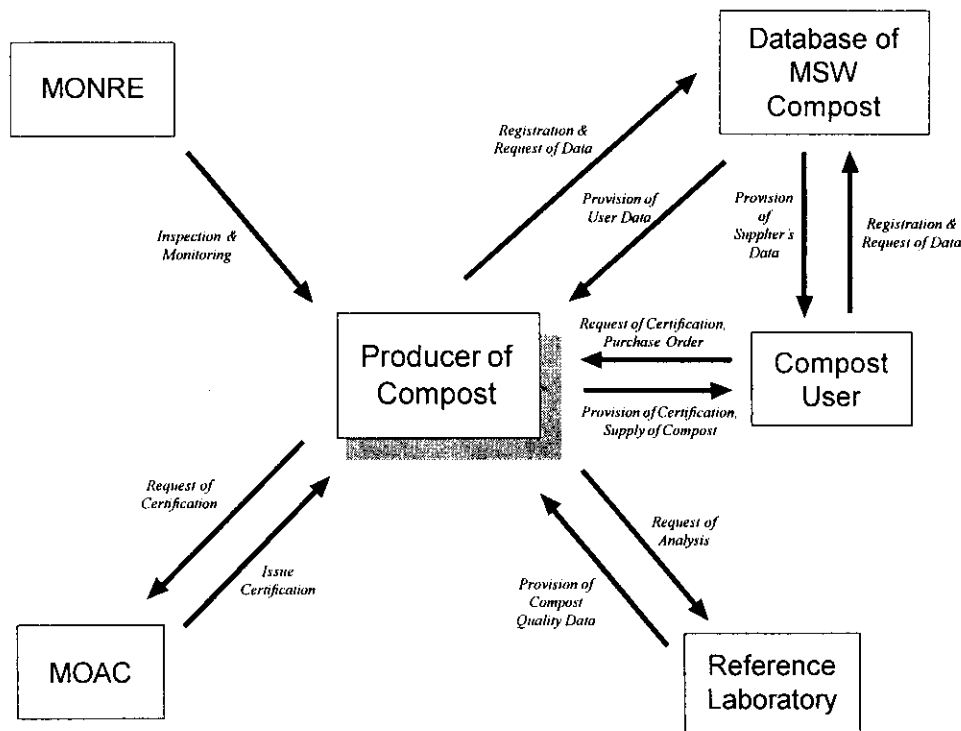


Figure 5-3: Certification System of Compost Quality from MSW

### 3) Acquisition of Public Cooperation

The 3Rs (Reduce, Reuse and Recycle), the main strategy of the National Waste Management Plan, will not be realized simply by formulating relevant legislation, developing the system and constructing the required facilities. What is most required for the realization of the 3Rs, is the cooperation of the public. The type of public co-operation required, however, is one that is long-lived and steady. Consequently, much is expected from the resident education and information programs. Though such resident education and information programs are rarely conducted by local administrations, the central government shall continuously encourage and support such activities. The Team recommends the central government to support local administrations in conducting education programs and keep the people understand the waste management situation at all time.

In order to get public cooperation, LA has to specifically tell citizens how they cooperate for SWM as follows;

- Keep citizens always inform about situation of waste problems
- Establishment of waste rules
- Citizen and LA's responsibilities are clearly defined
- LA has to comply with its responsibility
- Then LA requests citizens for cooperation
- If LA does not comply with it, citizens never cooperate to LA

Furthermore, in order to facilitate the improvement of SWM in LAs, the universities are very important external resources, especially on the research and analytical works. The LAs should cooperate with them on the following fields;

- Research and development of locally appropriate technologies
- Reference laboratory for certification of compost quality

Even there is no NGO related to waste management in the study area. However, for establishment of a sound SWM system in a LA it is indispensable to obtain public cooperation through participation in development of the SWM system and acceptance of it. For this purpose the involvement and cooperation of NGOs is necessary. The LAs should maintain good cooperation with NGOs through the following activities;

- Provision of information of SWM in LAs
- Request to participate monitoring activities for SWM facilities in LAs

#### **4) Utilization of Social Capital (Saleng and Middlemen)**

Recycling activity is very active in public sector like “Saleng” or “Tricycle Waste Buyer” in Thailand. It can be said that Saleng and middlemen are social capital of Thai society. They are parts of way of Thai life that greatly contribute to reuse and recycling activities. However, these social capitals are completely ignored from central government and LAs. Actually, the central government and LAs should help them in order to fully utilize this kind of social capital.

As for the assistance to these traditional recyclers the government and LAs may provide

- Training traditional recyclers to improve their service for customers
- Registration system of recyclers, provision of uniform or certificate
- Arrangement of recyclable collection days for traditional recyclers
- Provision of equipment, etc.

To assist middlemen the following may be provided

- Provision of a storage
- Arrangement of micro finance for them, if necessary
- Strengthening their managerial capability
- Facilitation between Middlemen and LA

For the waste pickers (scavengers), the study team found that there are few scavengers at the disposal site in the study area. While the LAs allow scavenging activities in its disposal site, the LAs should do the following measures;

- Prohibition of children scavenger
- Registration system to control number of waste pickers
- Provision of safety tools as necessary such as gloves, boots

### 5) Strengthening of Educating and Training Functions on SWM

Many local administrations suffer from lack of trained human resources in both technical aspects and management. The central government shall provide opportunities for education and training in SWM to as many stakeholders as possible in order to promote the 3Rs and implement proper disposal. Though PAOs and local administrations shall conduct various education programs and training in SWM for the stakeholders, the Team recommends the central government to provide opportunities for such activities for capacity building of local administration in term of waste management.

Table 5-3: Proposed Education and Training Programs on SWM  
to be done by Central Government

Training	Executing Organization	Target Stakeholders	Remarks
1. Seminar for Administrators	MONRE	Council members and high rank administrators of PAO, Municipality and TAO	Once a year at each PAO
2. Education for SWM Officers	MONRE	SWM officers of local administrations	Twice a year at the PAO
3. NGO Seminar	MONRE	NGO members	Once a year at each PAO
4. Training for SWM Officers	MONRE	SWM officers of PAOs and local administrations	Once a year at each PAO

As for the item 4, Training for SWM Officers, the trainees, who passed the examination to be held at the end of training, shall be given a certificate of a qualified SWM officer. In order to set up this training the central government shall establish a qualification system for SWM officers and order local administration to have a qualified SWM officer for its waste management.

### 3.4 Improvement of Infectious Waste Management

In principle, local administrations are not in charge of infectious waste management neither collection & transport nor disposal. For this issue, Ministry of Public Health is taking care while each medical institution will act as operator. However, due to the infectious waste in the study area is not big in volume. Furthermore, almost district hospital under supervision of Ministry of Public Health has its own infectious waste incinerator while this is also

available in large private hospital. Therefore, infectious waste management in the study area seems to be under well organized.

However, the team recommendation on this matter is strict elimination of infectious waste at municipal landfills. The central government, especially Ministry of Public Health should establish an infectious waste management network among their medical institutions. The basic rule is the medical institution who equipped with infectious waste incinerator such as district hospital must be in charge of disposal infectious waste in the district. Because the smaller medical institutions under Ministry of Public Health such as public health service center not only lacking of incinerator but also human resources is quite limited.

From the team's observation, almost of hospitals hesitate to receive infectious waste from other because they would like to use only their own. This due to their worry that if the incinerator works longer to eliminate infectious waste from other medical institutions, its life time will be shorter due to longer working hours. This syndrome is in opposition side to the fact. Therefore, the Ministry of Public Health should disseminate clear and correct such kind of information to its all medical institutions.

# *ANNEX*

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## Annex 1

### List of Municipality and Its Population in the Study Area

#### 1. CHOLBURI PROVINCE

No.	Name of Municipality	Number of House	Population	Male	Female
<b>Town Municipality</b>					
1	Cholburi Town Municipality	11,900	40,334	19,603	20,731
2	Phanat Nikhom Town Municipality	3,796	12,373	5,840	6,533
3	Sri Racha Town Municipality	6,143	27,100	13,371	13,729
<b>Sub-district Municipality</b>					
1	Saen Suk Sub-district Municipality	18,420	40,536	19,027	21,509
2	Khlong Tanru Sub-district Municipality	1,673	3,421	1,638	1,783
3	Bang Sai Sub-district Municipality	5,446	11,629	5,694	5,935
4	Ban Suan Sub-district Municipality	27,963	60,904	30,738	30,166
5	Ang Sila Sub-district Municipality	9,895	21,021	9,972	11,049
6	Ban Bueng Sub-district Municipality	5,636	15,217	7,401	7,816
7	Nong Phai Kaeo Sub-district Municipality	520	1,964	963	1,001
8	Hua Kun Chae Sub-district Municipality	1,277	3,894	1,874	2,020
9	Nong Yai Sub-district Municipality	1,874	7,380	3,864	3,516
10	Bang Lamung Sub-district Municipality	3,882	8,050	4,021	4,029
11	Huai Yai Sub-district Municipality	5,346	19,654	9,639	10,015
12	PhanThong Sub-district Municipality	1,465	4,454	2,142	2,312
13	Nong Tamlueng Sub-district Municipality	3,595	10,333	5,047	5,288
14	Laem Chabang Sub-district Municipality	33,545	45,869	22,861	23,035
15	Bang Phra Sub-district Municipality	5,533	13,684	6,583	7,101
16	Ao Udom Sub-district Municipality	33,529	76,690	37,841	38,849
17	Ko Sichang Sub-district Municipality	1,435	4,622	2,331	2,291
18	Na Chom Tian Sub-district Municipality	5,449	7,879	3,913	3,966
19	Bang Sare Sub-district Municipality	2,801	8,052	3,904	4,148
20	Sattahip Sub-district Municipality	7,927	20,929	10,283	10,464
21	Bo Thong Sub-district Municipality	1,123	3,506	1,726	1,780
22	Ko Chan Sub-district Municipality	1,080	4,509	2,750	1,759
23	Tha Bunmi Sub-district Municipality	2,238	6,137	3,077	3,060

Source: Statistical Data on Population and Household by The Registration Administration Bureau, Department of Provincial Administration (DOPA), December 2002.



## 2. CHACHAENGSAO PROVINCE

No.	Name of Municipality	Number of House	Population	Male	Female
<b>Town Municipality</b>					
1	Chachoengsao Town Municipality	16,125	43,884	21,253	22,631
<b>Sub-district Municipality</b>					
1	Nakhon Nuangkhet Sub-district Municipality	413	1,422	689	733
2	Bang Khla Sub-district Municipality	3,258	9,572	4,502	5,070
3	Pak Nam Sub-district Municipality	1,186	3,860	1,870	1,990
4	Don Chimphli Sub-district Municipality	526	1,614	788	826
5	Bang Khanak Sub-district Municipality	533	2,330	1,150	1,180
6	Bang Nam Piao Sub-district Municipality	823	2,382	1,145	1,237
7	Sala Deang Sub-district Municipality	351	1,576	734	842
8	Tha Kham Sub-district Municipality	4,890	7,567	3,722	3,845
9	Tha-Sa-an Sub-district Municipality	1,628	3,484	1,701	1,783
10	Hom Sin Sub-district Municipality	268	1,343	668	675
11	Bang Pakong Sub-district Municipality	2,081	6,985	3,376	3,609
12	Bang Wua Sub-district Municipality	763	2,719	1,293	1,426
13	Theppharat Sub-district Municipality	1,134	5,086	2,432	2,654
14	Ban Pho Sub-district Municipality	468	1,280	604	676
15	Ko Khanun Sub-district Municipality	1,050	3,385	1,617	1,763
16	Khao Hin Son Sub-district Municipality	1,401	3,329	1,679	1,650
17	Phanom Salakham Sub-district Municipality	3,556	6,287	2,973	3,314
18	Sanam Chai Khet Sub-district Municipality	1,424	3,853	1,909	1,944
19	Thong Sadao Sub-district Municipality	772	1,997	1,070	927
20	Plaeng Yao Sub-district Municipality	1,454	5,470	2,649	2,821
21	Hua Samrong Sub-district Municipality	1,681	5,910	2,875	3,035

Source: Statistical Data on Population and Household by The Registration Administration Bureau, Department of Provincial Administration (DOPA), December 2002.

### 3. NAKHONNAYOK PROVINCE

No.	Name of Municipality	Number of House	Population	Male	Female
<b>Town Municipality</b>					
1	Nakhon Nayok Town Municipality	6,228	18,379	8,898	9,481
<b>Sub-district Municipality</b>					
1	Ta Chang Sub-district Municipality	249	1,155	559	596
2	Ko Wai Sub-district Municipality	560	2,110	1,000	1,110
3	Ban Na Sub-district Municipality	1,909	5,875	2,784	3,091
4	Ongkharak Sub-district Municipality	1,018	2,752	1,362	1,390

Source: Statistical Data on Population and Household by The Registration Administration Bureau, Department of Provincial Administration (DOPA), December 2002.

#### 4. PRACHINBURI PROVINCE

No.	Name of Municipality	Number of House	Population	Male	Female
<b>Town Municipality</b>					
1	Prachin Buri Town Municipality	7,453	21,347	10,220	11,127
<b>Sub-district Municipality</b>					
1	Ban Na Prue Sub-district Municipality	605	2,103	1,054	1,049
2	Khok Makok Sub-district Municipality	478	2,023	949	1,074
3	Kabin Sub-district Municipality	1,770	4,573	2,208	2,365
4	Mueang Kao Sub-district Municipality	1,815	5,553	2,764	2,789
5	Sa Bua Sub-District Municipality	364	1,639	774	865
6	Na Di Sub-district Municipality	2,136	7,568	3,777	3,791
7	Ban Sang Sub-district Municipality	1,085	3,279	1,610	1,669
8	Prachantakham Sub-district Municipality	1,793	4,945	2,379	2,566
9	Krok Sombun Sub-district Municipality	827	3,018	1,513	1,505
10	Si Maha Phot Sub-district Municipality	1,616	3,260	1,563	1,697
11	Khok Bai Sub-district Municipality	1,402	6,136	2,990	3,146

Source: Statistical Data on Population and Household by The Registration Administration Bureau, Department of Provincial Administration (DOPA), December 2002.

## 5. RATCHABURI PROVINCE

No.	Name of Municipality	Number of House	Population	Male	Female
<b>Town Municipality</b>					
1	Ratchaburi Town Municipality	13,176	44,382	21,308	23,074
2	Ban Pong Town Municipality	7,214	21,616	10,325	11,291
3	Photharam Town Municipality	3,338	11,504	5,530	5,974
<b>Sub-district Municipality</b>					
2	Khao Ngu Sub-district Municipality	1,872	8,861	4,436	4,425
2	Lak Mueang Sub-district Municipality	4,930	19,023	10,731	8,292
3	Huai Chinasi Sub-district Municipality	2,963	10,720	5,331	5,389
4	Chom Bueng Sub-district Municipality	2,237	5,413	2,556	2,857
5	Dan Thap Tako Sub-district Municipality	610	2,270	1,116	1,154
6	Ban Chat Pa Wai Sub-district Municipality	1,136	3,970	2,026	1,944
7	Suan Phueng Sub-district Municipality	1,119	3,248	1,685	1,563
8	Damnoen Saduak Sub-district Municipality	2,461	8,627	4,014	4,613
9	Si Don Phai Sub-district Municipality	2,319	11,688	5,579	6,109
10	Krachap Sub-district Municipality	1,877	6,933	3,360	3,573
11	Tha Pha Sub-district Municipality	6,088	19,478	9,555	9,923
12	Huai Krabok Sub-district Municipality	533	1,946	970	976
13	Bang Phae Sub-district Municipality	4,279	17,462	8,387	9,075
14	Pho Hak Sub-district Municipality	2,552	10,260	5,007	5,253
15	Khao Khwang Sub-district Municipality	1,193	4,885	2,341	2,544
16	Chet Samian Sub-district Municipality	974	3,815	1,748	2,067
17	Ban Lueak Sub-district Municipality	2,865	9,301	4,423	4,878
18	Nong Pho Sub-district Municipality	1,545	3,776	1,776	2,000
19	Pak Tho Sub-district Municipality	1,086	3,423	1,646	1,777
20	Wat Phleng Sub-district Municipality	412	1,337	632	705

Source: Statistical Data on Population and Household by The Registration Administration Bureau, Department of Provincial Administration (DOPA), December 2002.

## ANNEX 2

### Data on Tambol Administration Organization (TAO) in the Study Area

#### 1. CHOLBURI PROVINCE

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>MUANG CHOLBURI DISTRICT</b>												
1	Klongtamru	3	2538	15.20	2,100	4	8,123,595	8,954,095	11,421,333	0	0.00%	0
2	Donhualor	3	2538	18.50	3,724	7	23,667,888	24,338,988	29,661,959	299,421	1.01%	80
3	Napa	2	2538	18.30	16,963	12	16,642,531	17,697,831	13,832,563	801,788	5.80%	47
4	Samnakhok	5	2539	6.50	2,319	6	1,752,672	2,885,272	1,909,898	0	0.00%	0
5	Samed	1	2538	12.50	13,482	3	17,790,194	18,623,694	14,770,334	0	0.00%	0
6	Nongkangkok	4	2539	27.00	5,015	7	4,466,264	6,692,136	7,565,958	0	0.00%	0
7	Nongmaidaeng	2	2538	6.70	9,522	7	21,621,685	22,369,285	14,964,884	1,084,138	7.24%	114
8	Nongree	2	2538	37.00	10,238	14	7,846,614	8,985,114	6,053,751	447,448	7.39%	44
9	Huaykapi	1	2538	17.50	7,501	7	10,806,717	11,684,717	10,987,513	388,904	3.54%	52
10	Muaeng	5	2538	20.44	1,814	5	2,804,227	3,941,127	5,203,833	0	0.00%	0

## 1. CHOLBURI PROVINCE (CONTINUE)

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>BAN BUENG DISTRICT</b>												
11	Klongkiew	2	2538	222.81	14,421	9	10,637,299	12,055,999	9,561,416	0	0.00%	0
12	Bang Bueng	3	2538	39.99	8,367	5	4,609,531	5,624,031	5,129,252	488,366	9.52%	58
13	Mabphai	5	2539	26.02	4,616	6	3,504,737	4,714,637	4,350,234	0	0.00%	0
14	Nongsak	3	2538	40.15	8,946	4	7,550,213	8,561,313	5,965,100	829,735	13.91%	93
15	Nongsamsak	4	2538	19.32	5,029	5	4,424,257	534,257	3,512,862	778,000	22.15%	155
16	Nongbondaeng	5	2539	28.83	5,458	6	3,619,886	4,851,286	4,314,473	0	0.00%	0
17	Nongpaikaew	4	2538	105.72	6,516	5	5,163,381	6,509,081	2,098,860	398,200	18.97%	61
18	Nongeiroom	2	2538	180.34	65,610	9	13,772,181	18,054,342	12,605,775	339,000	2.69%	5
<b>NONGYAI DISTRICT</b>												
19	Khaochok	5	2538	101.00	2,989	4	2,121,235	5,632,151	6,919,614	0	0.00%	0
20	Klongphlu	5	2539	64.00	4,250	4	1,970,826	3,196,926	2,002,116	0	0.00%	0
21	Nongsuachang	5	2538	85.00	3,892	5	2,547,451	15,557,089	3,079,059	131,024	4.26%	34
22	Hangsoong	5	2539	57.00	3,089	5	4,030,770	4,030,770	2,390,791	0	0.00%	0
<b>BANGLAMUNG DISTRICT</b>												
23	Khaomaikaew	3	2538	98.00	4,533	5	3,611,872	4,691,672	3,387,442	389,600	11.50%	86
24	Takientia	4	2538	57.85	9,090	5	6,264,718	7,146,118	2,814,553	0	0.00%	0

### 1. CHOLBURI PROVINCE (CONTINUE)

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
25	Poeng	4	2538	27.50	5,905	9	8,797,735	10,068,135	13,700,256	269,800	1.97%	46
26	Nongphreu	1	2538	45.54	31,731	14	31,231,431	31,572,431	24,952,856	0	0.00%	0
27	Nongplalai	4	2539	27.00	7,867	9	6,317,866	7,382,466	7,271,188	0	0.00%	0
<b>PANTHONG DISTRICT</b>												
28	Kohloi	5	2539	12.62	2,605	6	1,437,726	2,586,526	2,782,198	0	0.00%	0
29	Kokekhinon	5	2539	13.64	3,222	5	1,811,593	2,933,593	1,704,619	0	0.00%	0
30	Bangnang	5	2539	23.82	5,069	9	3,248,272	4,522,272	3,843,908	0	0.00%	0
31	Banghak	5	2540	5.75	1,190	4	926,891	1,995,591	2,664,409	0	0.00%	0
32	Bankhao	4	2539	11.87	2,917	7	11,831,302	13,004,602	1,283,254	0	0.00%	0
33	Panthong	5	2539	18.53	2,223	8	2,978,777	4,168,877	2,734,149	0	0.00%	0
34	Mabphong	5	2539	22.60	6,899	8	4,479,938	5,757,838	4,687,508	0	0.00%	0
35	Nongkaya	5	2539	5.83	1,534	5	1,399,982	2,430,982	1,855,724	0	0.00%	0
36	Nongtamlueng	5	2539	8.28	1,245	3	1,908,317	2,961,817	1,502,071	0	0.00%	0
37	Nonghoeng	5	2539	25.07	4,874	6	3,285,003	4,497,003	3,069,966	0	0.00%	0
38	Napradoo	5	2539	17.00	2,235	5	1,687,923	2,818,423	2,337,518	0	0.00%	0

### 1. CHOLBURI PROVINCE (CONTINUE)

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>PANUSNIKOM DISTRICT</b>												
39	Kudngong	5	2539	5.50	8,813	6	4,334,483	5,553,783	3,472,477	108,000	3.11%	12
40	Kokphlor	5	2539	19.02	2,798	8	1,608,694	2,816,394	1,694,761	0	0.00%	0
41	Thakham	5	2539	31.42	2,804	7	1,978,698	3,196,789	2,199,270	0	0.00%	0
42	Tungkhwang	5	2539	21.18	4,023	10	2,491,874	3,766,974	3,067,585	0	0.00%	0
43	Namatoom	5	2539	9.40	2,546	7	1,830,469	3,053,425	2,683,163	0	0.00%	0
44	Narerk	4	2539	26.91	8,559	15	4,578,728	6,020,728	4,164,366	0	0.00%	0
45	Nawanghin	5	2539	32.75	6,974	11	3,974,933	5,081,933	4,075,915	0	0.00%	0
46	Banchang	5	2539	13.31	5,788	7	3,726,947	6,711,261	3,807,080	0	0.00%	0
47	Bancherd	5	2539	5.39	3,257	8	195,000	3,125,800	1,500,037	117,580	7.84%	36
48	Railakthong	5	2539	18.06	3,046	11	1,340,192	2,642,292	2,118,390	0	0.00%	0
49	Watbode	5	2539	17.13	3,193	11	1,967,668	3,239,468	2,409,442	0	0.00%	0
50	Watluang	5	2539	12.83	2,840	7	1,909,369	3,086,069	1,199,346	0	0.00%	0
51	Sasieliam	5	2539	30.50	6,733	11	4,365,744	5,729,044	3,460,743	0	0.00%	0
52	Nongkayad	5	2539	16.40	3,153	8	2,612,326	3,833,126	2,152,539	0	0.00%	0
53	Nongphreu	5	2539	32.66	5,044	10	3,040,970	4,356,670	4,841,470	0	0.00%	0
54	Nonghieng	3	2539	75.66	12,407	15	7,197,005	8,574,105	6,336,318	0	0.00%	0



### 1. CHOLBURI PROVINCE (CONTINUE)

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
55	Naphrathat	5	2539	14.29	4,086	11	2,956,076	2,956,076	2,584,858	70,000	2.71%	17
56	Monnang	2	2538	52.00	14,172	12	9,299,031	10,391,731	6,671,099	385,200	5.77%	27
57	Huathanon	5	2539	12.00	4,771	9	2,738,735	4,038,735	2,729,967	0	0.00%	0
<b>KING AMPHUR KOHCHAN</b>												
58	Kohchan	4	2538	179.00	17,227	13	1,930,348	11,035,004	11,035,004	0	0.00%	0
59	Thaboonmee	4	2539	58.56	9,874	12	6,802,148	7,973,448	5,395,686	0	0.00%	0
<b>SRIRACHA DISTRICT</b>												
60	Khaokonsong	3	2538	90.00	4,485	6	3,208,014	4,137,814	6,018,846	432,345	7.18%	96
61	Borwin	5	2538	11.00	2,948	4	6,098,603	6,956,103	33,340,254	314,846	0.94%	107
62	Bangphra	1	2538	152.00	18,987	10	19,077,356	20,348,056	17,197,220	685,960	3.99%	36
63	Nongkham	5	2539	45.00	3,474	4	4,311,198	6,432,296	3,141,280	0	0.00%	0
<b>KOH SICHANG DISTRICT</b>												
64	Thataewawong	5	2540	0.60	165	1	544,994	1,521,694	605,641	0	0.00%	0
<b>SATTAHIP DISTRICT</b>												
65	Najomthien	3	2538	59.25	2,707	8	3,665,650	6,407,810	4,617,796	244,000	5.28%	90
66	Banbsarae	4	2539	72.60	7,534	7	4,807,499	5,955,499	4,465,317	0	0.00%	0
67	Phlulaluang	1	2538	54.05	19,866	8	1,543,001	16,589,301	10,613,286	854,808	8.05%	43

### 1. CHOLBURI PROVINCE (CONTINUE)

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
68	Sattahip	3	2539	88.25	45,705	9	15,483,130	16,895,930	12,304,720	1,218,800	9.91%	27
69	Samaesarn	5	2539	32.00	5,453	4	2,871,390	4,061,190	3,236,873	339,000	10.47%	62
<b>BORTHONG DISTRICT</b>												
70	Kasetsuwan	5	2538	156.00	5,971	7	2,744,804	11,011,434	2,539,614	0	0.00%	0
71	Tadthong	5	2538	115.00	6,258	8	5,220,122	6,689,122	4,558,601	359,800	7.89%	57
72	Borkwangthong	4	2538	35.37	5,982	7	4,660,012	5,922,212	3,290,594	297,600	9.04%	50
73	Borthong	4	2538	231.00	9,381	9	3,735,542	5,518,642	3,907,521	0	0.00%	0
74	Phluangthong	4	2540	215.00	6,581	9	2,541,919	4,187,119	3,440,341	0	0.00%	0
75	Watsuwan	5	2539	64.17	5,985	6	3,365,975	4,881,375	3,115,072	0	0.00%	0

Source: Data on Tambol Council and Tambol Administration Organization (TAO) Year 2002 by Sub-district Administration Division, Department of Local Administration.

## 2. MUANG CHACHOENSAO DISTRICT, CHACHOENSAO PROVINCE

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>MUANG CHACHOENSAO DISTRICT</b>												
1	Klongnakonnuengket	4	2538	31.06	5,564	17	5,733,044	7,817,044	6,075,664	0	0.00%	0
2	Klongudomcholajon	4	2538	39.00	5,069	9	4,931,784	5,686,784	5,146,421	0	0.00%	0
3	Bangphai	4	2538	11.76	5,316	10	2,568,314	3,466,314	2,915,737	0	0.00%	0
4	Wangtakien	2	2538	16.48	4,284	10	5,122,183	5,791,183	3,860,683	0	0.00%	0
5	Klongna	5	2539	10.69	3,274	5	2,433,606	3,594,806	2,191,000	0	0.00%	0
6	Klongpreng	4	2539	36.66	9,090	12	3,492,423	4,919,623	2,262,169	0	0.00%	0
7	Klongluangpang	4	2539	34.38	7,691	13	7,071,600	8,441,800	6,460,774	0	0.00%	0
8	Thakhai	4	2539	28.57	8,453	15	5,095,130	6,557,330	4,105,680	0	0.00%	0
9	Bangkaew	4	2539	10.00	5,715	12	4,478,001	6,522,527	6,429,023	0	0.00%	0
10	Bangkhwan	4	2539	22.00	5,054	14	3,639,907	5,141,607	3,365,269	0	0.00%	0
11	Bangteenped	4	2539	11.00	9,148	12	4,912,020	7,643,020	7,205,798	0	0.00%	0
12	Bangtoey	4	2539	28.95	4,447	13	3,111,542	4,491,742	2,922,026	0	0.00%	0
13	Bangphra	5	2539	16.50	4,584	10	2,785,451	4,059,651	809,908	0	0.00%	0
14	Bangkahai	5	2540	18.30	3,020	9	1,526,380	2,807,580	2,301,822	0	0.00%	0
15	Nhamdaeng	5	2540	8.97	2,453	7	976,910	2,790,069	1,871,933	0	0.00%	0
16	Sothorn	4	2540	7.43	3,517	5	4,959,861	6,939,163	3,281,815	0	0.00%	0
17	Banmai	5	2540	3.01	2,993	5	1,212,825	2,363,025	794,849	0	0.00%	0
18	Klongjukkracher	5	2540	12.00	2,853	8	1,447,632	1,224,200	2,176,341	0	0.00%	0

Source: Data on Tambol Council and Tambol Administration Organization (TAO) Year 2002 by Sub-district Administration Division, Department of Local Administration.

### 3. PAK PHLI DISTRICT, NAKHONNAYOK PROVINCE

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>PAK PHLI DISTRICT</b>												
1	Kohpho	5	2540	37.00	2,879	7	2,065,280	3,290,680	2,045,313	0	0.00%	0
2	Koh Wai	5	2540	25.00	2,739	6	1,602,488	2,781,788	1,542,363	0	0.00%	0
3	Kokegruad	5	2540	14.59	2,833	7	1,766,852	2,945,045	1,524,215	0	0.00%	0
4	Tharue	5	2538	65.00	4,161	8	2,552,462	3,883,162	3,688,537	0	0.00%	0
5	Nahinlad	5	2540	109.00	3,717	7	1,449,616	2,843,616	3,670,610	0	0.00%	0
6	Pak Phli	5	2540	33.67	3,529	7	2,116,691	3,351,991	2,259,620	233,400	10.33%	66
7	Nongsang	5	2540	30.00	3,505	9	2,123,468	3,393,768	1,954,012	40,000	2.05%	11

Source: Data on Tambol Council and Tambol Administration Organization (TAO) Year 2002 by Sub-district Administration Division, Department of Local Administration.

#### 4. PRACHANTAKHAM DISTRICT, PRACHINBURI PROVINCE

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>PRACHANTAKHAM DISTRICT</b>												
1	Khamtanode	5	2539	84.59	6,849	18	2,226,248	3,625,548	1,915,049	0	0.00%	0
2	Prachantakham	5	2539	44.16	6,435	10	1,661,436	4,135,336	3,226,883	0	0.00%	0
3	Phongam	4	2539	247.89	10,087	19	2,985,413	4,769,413	5,461,823	0	0.00%	0
4	Dongbang	5	2540	24.59	3,859	10	1,021,512	1,021,512	2,132,125	0	0.00%	0
5	Banhoy	5	2540	23.61	4,252	9	1,167,611	2,463,211	1,923,454	0	0.00%	0
6	Kohloy	5	2540	24.59	4,543	7	1,326,636	2,583,536	2,493,110	0	0.00%	0
7	Nongsaeng	5	2540	22.63	3,216	6	883,004	2,493,104	2,252,760	0	0.00%	0
8	Bufai	5	2540	342.32	4,599	13	1,158,305	3,235,605	3,172,745	0	0.00%	0
9	Nongkaew	5	2540	89.16	3,224	12	29,591	2,533,691	2,267,487	0	0.00%	0

Source: Data on Tambol Council and Tambol Administration Organization (TAO) Year 2002 by Sub-district Administration Division, Department of Local Administration.

### 5. MUANG RATCHABURI DISTRICT, RATCHABURI PROVINCE

Item No.	Name of TAO	Class	Year of Establishment	Area Sq.km.	Number of Population	No. of Village	Fiscal Year 2001 (Baht)					
							Revenue		Total Expense (Including Subsidy, Deposit)	Public Cleansing Expenses		
							Income Excluding Subsidy	Revenue of TAO		Public Cleansing Expenses	Percentage of Total Expenses	Average per Head
<b>MUANG RATCHABURI DISTRICT</b>												
1	Kohplubpla	5	2539	47.61	10,003	15	4,605,274	6,001,845	4,071,845	24,800	0.61%	2
2	Khaorang	5	2540	20.74	3,214	7	2,189,011	3,380,011	2,890,670	0	0.00%	0
3	Kungkratin	5	2539	18.30	5,057	9	2,320,296	3,583,696	2,959,633	280,800	9.49%	56
4	Kungnamwoen	5	2539	15.00	3,895	7	2,466,552	3,662,252	1,468,230	0	0.00%	0
5	Koobua	4	2539	30.50	9,156	15	4,160,182	6,234,982	4,649,940	0	0.00%	0
6	Chedihak	3	2538	19.85	13,091	11	6,596,734	7,785,934	5,802,093	419,921	7.24%	32
7	Dontakho	3	2538	20.40	11,099	9	6,274,195	8,341,459	7,968,851	0	0.00%	0
8	Donrae	5	2540	22.60	4,162	10	2,444,324	3,720,124	2,390,598	0	0.00%	0
9	Tharab	5	2540	26.05	3,899	7	3,616,695	4,840,035	3,620,355	0	0.00%	0
10	Namphu	5	2539	54.00	4,025	6	3,177,668	5,484,350	2,810,593	0	0.00%	0
11	Bangpa	5	2539	19.12	5,051	12	3,435,069	4,769,469	3,166,658	0	0.00%	0
12	Banrai	5	2539	8.50	5,789	6	2,822,649	4,088,249	1,400,289	0	0.00%	0
13	Phikulthong	5	2540	18.80	4,272	6	3,799,966	4,988,866	3,717,884	0	0.00%	0
14	Samruaen	5	2540	17.00	4,531	7	4,486,441	5,691,141	4,336,857	0	0.00%	0
15	Nongklangna	5	2538	16.00	3,576	7	2,706,114	3,899,614	2,750,626	0	0.00%	0
16	Loomdin	5	2539	6.22	4,078	6	2,747,531	3,899,831	2,775,930	0	0.00%	0
17	Huayphai	5	2539	36.85	6,198	9	4,052,022	5,711,556	3,297,028	0	0.00%	0
18	Hinkong	5	2539	43.41	6,266	11	5,689,798	7,465,630	5,430,394	0	0.00%	0

Source: Data on Tambol Council and Tambol Administration Organization (TAO) Year 2002 by Sub-district Administration Division, Department of Local Administration.



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