

- The people in these apartments have got accustomed to the new collection system because it was introduced in these buildings at first. We judged they are ready to proceed to the further step.

The system of the separate collection is summarized below.

Table 6-17: Types of Recyclables

Category	Items included	Collection Day
General waste	Other than recyclable waste	Monday, Wednesday, Friday
Recyclable waste	Bottle, Plastic bottle, Paper, Can, Metal, Plastic	Saturday

Although bottle is excluded from Recyclable waste in the master plan system, the housing association in the project site insisted to include bottle in Recyclable waste because the housing association want cleaning workers to get benefit from selling recyclable waste separately discharged by residents.

c.5 Schedule

The schedule of improvement of the collection system is shown below.

	July	August	September	October	November
Collection improvement					
Discussion with MUB and TUK					
Provision of training for TUK staff					
Installation of equipments					
Start of new system (3 days per week)					
Start of separate collection system					
Introduction of discharge rules					
Discussion with MUB, TUK and HAs*					
Baseline survey					
Formulation of draft of discharge rules					
Preparation of educational materials					
Community meetings					
Start of discharge rules					
Start of the source separation					
Monitoring					

*HAs: housing associations

6.7.2 Implementation of the project

a. Improvement of Collection System

The discharge rules were introduced in the northern part of Khoroo 3 and the eastern part of Khoroo 1 in the first place, and the target area was expanded step by step.

The starting dates of discharge rules in each area are shown in the table below.

Table 6-18: Expansion of Discharge Rules

	Areas	Starting Date
1 st Area	North part of Khoroo 3 East part of Khoroo 1 Apartment no. 13 of Khoroo 4	August 28
2 nd Area	South part of Khoroo 3	September 11
3 rd Area	Main part of Khoroo 1 (re-trial in Khoroo 1)	September 18 (October 23)
4 th Area	Residential area in Khoroo 2	October 16
5 th Area	Khoroo 4	November 14

The process of implementing discharge rules is described below.

a.1 Baseline survey

The following surveys were conducted in June and July, 2006. The detailed results of these surveys are shown in Databook.

- Interview survey for local residents (5 person in each Khoroo)
- Interview survey for all Housing Associations (44 HA)
- Interview survey for restaurant/café/bar

a.2 Preparation Work

In each case, the team spent around 1 week to organize various meetings and prepare for educational materials before the start of the discharge rules.

(1) Meeting with Khoroo Governor and Housing Associations

Before finalizing the plan in each area, meetings with the Khoroo governor and housing associations were organized. If they agree with the trial of the discharge rules, the project plan, in particular the contents of discharge rules, was discussed and finalized.

At first, most of housing associations were skeptical if waste discharge rules worked, since the frequency of the collection service would be decreased from twice every day to three times per week. The team emphasized that the lack of clear rules between dischargers and TUK was a real cause of problems of waste heaps and that it was important to consider the cost of the collection service.

In Khoroo 2, 3 & 4, the governors agreed with the proposed discharge rules and made a promise of full support and persuaded housing associations to cooperate with the project. As a result, the majority of housing associations in these Khoros agreed to try to introduce discharge rules and to disseminate information on the collection improvement project and discharge rules to their household members.

In the main part of Khoroo 1, however, most of housing associations did not agree with the proposed discharge rules and the Governor accepted their decision at the kick-off meeting. In consequence, the team and MUB decided not to implement discharge rules in a full scale in Khoroo 1.

(2) Establishment of Discharge Rules

Based on the result of the baseline survey, the following rules were proposed and finalized through the discussion with Khoroo governors and housing associations.

Discharge rule 1: about the day and time of discharging waste.

- Waste can be discharged only on the collection day (three times per week)
 - Area A (Khoroo 2 & 3): Monday, Wednesday, Friday
 - Area B (Khoroo 1 & 4): Tuesday, Thursday, Saturday
- Waste should be discharged by 9:00 am

Discharge rule 2: about the discharge place.

- Waste should be placed only at a designated place. You can bring waste directly to a collection vehicle.

Discharge place was decided by each housing association, due to the structure of apartment buildings. Most of traditional low-rise buildings have no place to store waste, and an entrance was usually selected as a discharge place even though there is not enough space.

Discharge rule 3: about the way of discharging waste.

Waste should be discharged in the following ways.

- Waste should be kept in a plastic bag or container.
A plastic bag should be bound tightly
- Don't dump waste directly on the ground

Discharge rule 4: prohibition against dumping waste in public space

- You are prohibited from dumping waste in public space such as on the street and park.

(3) Preparation of Educational Materials

The following educational materials were prepared.

Signboard at the Apartment Entrance

At each entrance, a signboard which displayed the collection days and discharge rules was installed. The team support housing associations to prepare for bulletins board to post the signboard and leaflet.



Figure 6-22: Signboard at the Apartment Entrance

Leaflet

Several leaflets were prepared.

- Notice leaflet both for households and business establishments
- Explanation of discharge rules in general
- Explanation of specific issues: In some apartments, many residents still did not bring down waste to the ground floor and placed it in front of their apartments or continue to dump waste at a former dumping place. In order to stop it, additional leaflets were prepared and distributed to residents in order to provide a more specific instruction.
- Caution leaflet (in Khoroo 3, the governor organized the second campaign in order to give warning to those who continue to dump waste at an illegal dumping place near the Khoroo 3 office. For this campaign, a caution leaflet was



Notice Leaflet



Instruction Leaflet

Figure 6-23: Leaflets

Street Signboard

Based on the request from the Khoroo governors and some housing associations, street signboards were installed at former dumping places in order to give warning to those who continue to dump waste at former dumping place. On the signboard, penalty which the law on solid waste management lays down to those who dump waste illegally are displayed along with discharge rules.



Figure 6-24: Street Signboard

(4) Meetings with cleaners and keepers

In order to make cleaners and keepers to fully understand discharge rules, meetings with cleaners and keepers were organized at each housing association soon after housing associations agreed with the discharge rules. In some cases, plural housing associations

jointly organized meetings. Even though some cleaners were against the plan to set the entrance space as a discharge place, since if many residents place waste in the entrance on non-collection day, it would cause a problem. The team emphasized the importance of the dissemination of information on discharge rules and made a promise to prepare for additional educational materials until most of the residents understand discharge rules. As a result, most of cleaners agree with discharge rules.

(5) Community Meetings

Before the start of discharge rules, community meetings were organized in cooperation with the Khoroo governments and housing associations.



(6) Interview surveys

In order to grasp the progress of the project, interview surveys for households, cleaners, and housing associations were organized one-two months after the start of the discharge rules.

b. Introduction of Separate Collection System

The separate collection was firstly conducted on the 18th Nov. 2006 and continued for one month.

6.7.3 Results and Evaluations

a. Result

a.1 Improvement of Collection System

Current Conditions

One of the main indicators to evaluate the collection improvement project is the number of illegal dumping places. In addition, the changes in people's awareness and behaviors are

evaluated based on the result of interview surveys. The time needed for waste collection work is used to evaluate the changes in the collection efficiency.

(1) First Area

In the north part of Khoroo 3, three housing associations were involved in.

Ireedui-3, one of the best housing associations in the area, took a leading role and disseminated information actively and monitored discharge manners of both member households and outside people. As a result, the entrance to entrance collection system was smoothly implemented and two waste heaps quickly disappeared. This resulted in the significant cut in the collection time in this housing association.



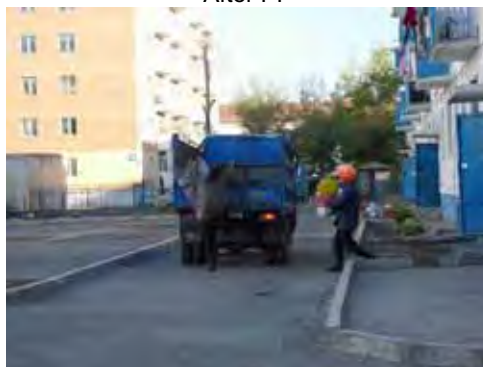
Waste heap before PP



After PP



In the morning of collection day



Collection work after PP

However, a small number of residents still discharged waste at a wrong time, and cleaners have to keep waste in a place underground and brought it when a collection truck for business comes in the afternoon.

In the other two housing associations, the new collection system did not work well in the beginning. One association was new and managed by the construction company which developed these apartments. Its management style tended to be business-like and lacked the sense of community. It was difficult for the team to reach out the households and it took time before the majority of residents recognized the discharge rules.

At first, the team asked keepers of this association to monitor the former dumping place next to the parking lot, but this did not work. The Khoroo 3 governor replaced them with a Hezeg leader, who had an authority to punish violators with fine. Continuous approaches with additional leaflets and an active monitoring activity reduced the number of residents who dumped waste decreased gradually.



Waste heap next to parking lot before PP



After PP

The third housing association was a large size association and faced various social problems. Many of residents were retired person and income-level was relatively low. Some residents suffered from alcohol addiction. Many residents ignored discharge rules in the beginning and waste heaps could not be removed soon, even though its size became smaller.

The Khoroo 3 governor organized a campaign at the three former dumping places during the first weekend after the start of the discharge rules. As a result, more people followed rules.

At present, the total collection time from these three housing associations was significantly shortened.



Waste Heap before PP



After PP



Collection Day

One apartment building in Khoroo 4 was included in the first area. Behind the building was always a big waste heap. Restaurants and government offices along with apartment residents were main illegal dischargers. TUK was responsible to stop illegal dumping by restaurants and offices, while the director of the housing association persuaded household to follow rules. Repeated inspection to restaurants by TUK resulted in the stop of illegal dumping by restaurants.



(2) Second Area

In the southern part of Khoroo 3, there were three housing associations. One association faced a serious internal problem. There was no director and the association did not function at all. It is almost impossible for the team to reach out residents. Many people dump waste inside the building as well as at the illegal dumping place outside. The director of another association was strongly against the discharge rules. As a result, many residents continued to dump waste at a dumping place in front of a construction site on non-collection day, regardless of the active involvement of the Khoroo 3 governor.

In addition, many business establishments along the peace street bring their waste to the dumping place. TUK visited all the business establishments to ask them to stop dumping waste and to keep waste until a collection vehicle for business came in the afternoon.

The governor decided to organize a campaign, starting on October 20, in order to make residents understand the importance of discharge rules and give warning, mentioning a possible fine. After the campaign, the waste heap started to diminish and finally disappeared.



Waste Heap before PP



After PP



Collection Work after PP

However, some residents continued to discharge waste on non-collection day and place it inside building, and this causes a problem for residents.

(3) Third Area

Since most of housing associations in the main part of Khoroo 1 expressed their objection against proposed discharge rules and the governor did not persuade them to cooperate with the project at a housing association meeting, the team and MUB decided not to implement discharge rules in the whole area. One association, where a collection truck comes first in the area to collect waste, agreed to try to introduce discharge rules, and the team decided to implement in this association first.

Since a monitoring person selected by the Khoroo 1 governor could not control the illegal dumping and the involvement of the housing association was limited, many of residents did not change their manner of discharging waste. In addition, TUK could not replace an old collection vehicle with a new one as it promised, and the old collection vehicle often came late due to its mechanical problem. This discouraged residents further to follow rules. As a result, the new collection system could not be applied and two waste heaps still existed as before.



Waste heaps in Khoroo 1 after PP

(4) Fourth Area

The successful result in Khoroo 3 was gradually known by neighboring areas. Since big waste heaps in Khoroo 2 were located near apartment buildings, many of residents as well as the governor and housing associations welcomed the collection improvement project in Khoroo 2.

In addition, Khoroo 2 governor selected his full time staff as a monitoring person for one week along with a Khoroo inspector and a keeper of one housing association. All the three monitoring person in Khoroo 2 worked very hard. As a result, discharge rules could be introduced smoothly, even though there are a lot of business establishment in this block. The collection truck, which collects waste in the southern part of Khoroo 3 before Khoroo 2, usually finishes its work around noon after the project.



Waste heaps before PP



Collection Work after PP

(5) Fifth Area

The level of preparation work resulted in different result.

Since the residents of Solongo-3 housing association and apartment building No. 21 were concerned about a large waste heap in front of building No. 21, housing association and cleaners were actively involved in preparation work. Even though residents of the building No. 21 do not organize a housing association, its cleaner worked very hard to disseminate information to residents and to keep the area clean. As a result, residents understood discharge rules well, the new collection system was applied smoothly and a large waste heap was removed.



Collection work before PP

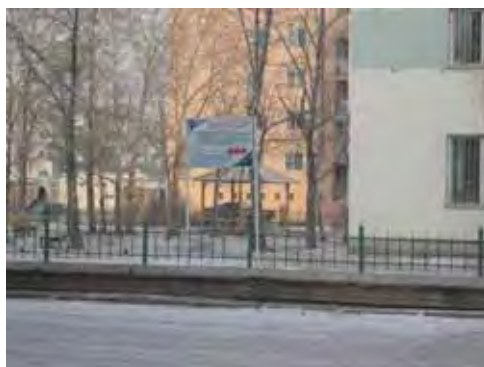


Collection work after PP

The director of one housing association near the Khoroo 4 office was absent for a long time during the preparation period and did not do the preparation work. Many of residents continued to discharge waste at a wrong day and time and place waste inside buildings. Cleaners brought waste to a place near the apartment building No. 41. Even though a large waste heap in front of the Khoroo office was removed, another waste heap next the building No. 41 was created.



Waste Heap before PP



After PP



New Waste Heap after PP

Result of Interview Survey

The main finding of the interview surveys are summarized below.

- Around 15% of the household respondents did not know discharge rules at the time of interview surveys
- Among those who knew discharge rules, more than 90% of them recognized the collection days (three times per week)
- 82.2% of household respondents answered that they always followed rules.

- Among those who always or sometimes followed rules, 78.4% of them answered that the frequency was right.
- Among those who always or sometimes followed rules, 60% of them place waste at a designated place while 40% of them bring waste directly to a collection vehicle.
- 87.7% of household respondents and 88.5% of housing associations (23) thought the new collection system is better than the previous system, while 3 associations answered the previous collection system was better.
- 46.6% of the household respondents did not read leaflets.
- Around 75% of household respondents thought that conditions of their areas were improved and around 60% of them realized that their awareness of solid waste management was increased.
- All the housing associations thought that they would support the new system, even though 15 associations requested some modifications.

a.2 Introduction of Separate Collection

Residents well cooperated to separate collection, but it was found that the most of glass bottles of beer and local vodka, plastic bottles and aluminium cans were sorted by cleaning workers from Recyclable waste and they sell to recyclable dealers. They could get about 500 to 1000 Tg. every week from this activity. As a result, the final amount of recyclables for collection was limited.



Recyclable Waste Separately Discharged



Recyclable Waste Separated by Cleaners



Final Amount of Recyclables
for Separate Collection

b. Evaluation

b.1 Improvement of Collection System

Entrance collection system worked well

In general, the result of the project shows that an entrance collection system is applicable in the planned area. In the case of low-rise apartment buildings, however, the limited space at the entrance could cause a problem. In particular, if a certain number of residents continue to discharge waste on non-collection day, the new system would face a serious problem. In some cases, a new waste heap was created near the apartment buildings.

Discharge rules worked with some conditions

Even though the frequency of collection service was significantly decreased, the majority of households followed discharge rules. The proposed discharge rules worked well under the following conditions.

- Enough preparation work

In the case in which the preparation work was not enough and many household continue to discharge waste at a wrong time, a chaotic thing happened.

- Strict monitoring work for a certain period after the new system starts

In the case in which suitable monitoring person could not be selected, a large number of residents continued to dump waste at a former illegal dumping place.

- Continuous education activities by Khoroo governments and housing associations

Even well organized housing associations face a problem in which a certain number of residents do not recognize or just ignore discharge rules. The active involvement of Khoroo governors and housing associations in the continuous education activity decreased the number of household who continued to dump waste at former illegal dumping places.

Collection Efficiency

The removal of waste heaps significantly shortened the collection work. The number of trip, however, did not change, only one trip per day. It is necessary for TUK to modify the collection plan in the whole area in order to achieve the real increase in the collection efficiency.

Benefits obtained by the project

Direct Effect	Secondary Effect
1. Scattered waste disappeared.	Attracting tourists and residents.
2. Sweeping work is reduced.	Cost reduction.
3. The town gets clean.	Attracting tourists.
4. The number of stray dogs decreases.	Cost reduction
5. The number of waste pickers in town decreases.	Attracting tourists and residents.
6. The waste collection work gets easier and quicker.	Cost reduction of collection work.
7. It finds the organizations discharging waste without contract.	Income from business waste increases.
8. People hesitate to throw away garbage.	It helps to change people's attitude.

b.2 Introduction of Separate Collection System

The project implementation implies the followings.

- Resident cooperation for separate discharge is limited and small amount of recyclable was collected from target area. Phased implementation from improved

collection system, application of waste discharged rule and so on is necessary before introducing separate collection system.

- Most of glass bottles of beer and local vodka, plastic bottles and aluminium cans which can be well traded will be recovered by cleaning workers at this moment.
- This system can be an effective system to sort the recyclables at the generation sources.
- The contents of the waste collected by the recyclable waste collection will be very suitable for the raw material of the RDF.

6.7.4 Lessons and Recommendations

a. Improvement of Collection System

a.1 Lessons

Before the pilot project, the Chingeltei TUK increased the frequency of the collection service to twice a day in order to prevent waste heaps. The collection service twice a day, however, was not enough to keep the center of the district clean. On the other hand, MUB could not afford to provide the collection service with such high frequency. It was necessary for MUB and TUK to take a different measure.

The result of the pilot project showed that the entrance collection system with discharge rules are effective tools to increase the collection efficiency and to prevent waste heaps, while decreasing the frequency of the collection service. Main waste heaps were successfully removed or diminished except in Khoroo 1. There were several important factors for the smooth implementation of discharge rules.

Leadership of Khoroo Governor

The strong will of the Khoroo governor had a considerable impact on housing association. The active involvement of housing association was indispensable for the smooth implementation, since the associations work as a bridge with residents. Since the residents of the apartment area do not have a strong sense of community and the decrease in collection service frequency restricts the freedom, it is difficult for housing associations to ask household members to follow rules without a firm support of the governor.

In addition, the Khoroo government is a sole authority to punish those who dump waste illegally with fine. Khoroo's active involvement in the project was one of measure factors for the smooth implementation in Khoroo 2, 3 and 4.

Role of Housing Association

The role of the housing associations was proved to be critical. Housing associations which executive board members were actively supported the project could started discharge rules more smoothly than other associations.

However, the housing associations of new apartments are usually different from traditional associations. The companies which were responsible for the development of apartment buildings usually continue to take responsible for the management of housing associations. The relation between the housing associations and households tends to be business-like, and the sense of community there usually weak. Another approach might be necessary to implement discharge rules in these new apartment complexes.

Support of cleaners and keepers

The team spent enough time to discuss with cleaners and keepers about discharge rules, since they play an important role after the discharge rules start. This resulted in their active support and smooth implementation of rules.

Selection of appropriate monitoring person

In the first area, the team selected cleaners and keepers as monitoring person. At the apartment buildings which are small-scale and isolated from public space, this worked. If dumping places are located in the public space, however, the selection of appropriate monitoring person was critical. Person with some kinds of authority such as Khoroo inspector should be selected as monitoring person.

a.2 Recommendations

The entrance collection system with discharge rules works well and it should be expanded to other areas as soon as possible.

There are several issues to be solved in order to implement the new collection system more smoothly.

- How to strengthening the community

Since the residents of the apartment area do not have a strong sense of community, there are still various problems left. Even at well organized housing associations, a small number of residents still discharge waste at wrong time and place it inside the building.

Even though some residents required the government to place a ban on this misbehavior inside their premises, as long as they do not discharge waste in a public space, this is beyond the authority of the Khoroo government. Housing associations and residents have to solve this problem by themselves.

One of possible measures for housing associations is to strengthen the community by organizing social gathering. If residents know more and get closer to each other, it could be expected that they restrain themselves from doing selfish behaviors.

- How to disseminate information to all the households

Since there are no mail boxes at each apartment buildings due to the lack of mail delivering system to each households, housing associations have to visit all the households and to hand it to them in order to deliver leaflets. It is, however, very difficult since many people are not at home, especially during summer season. It is necessary to take a measure to certainly deliver leaflet to all the households.

- How to take the property value into account

It's been more than 10 years since apartments were privatized. It seems that many old residents do not understand the meaning of the privatization. For ordinary citizen, their apartments are the biggest private assets and it is very important for them to keep their value.

Recently many residents renovated their apartments. In order to increase the value of assets, however, it is important to keep the whole environment of the apartment complexes good. If they can keep the whole area clean without scattered waste, they can increase the value of their apartments. It is important to make residents understand that they could increase the value of their apartments by following discharge rules.

- How to control the development of new buildings

In some areas, a lot of new buildings were constructed and this causes a problem for a collection vehicle to access to target buildings. MUB should control the development plan in the center of the city.

Many of buildings in the center of the city do not have facility to store waste. When the development plan of new apartment buildings is made, waste storage and collection plan should be included.

- How to achieving the real collection efficiency

Before the pilot project, the collection efficiency was low, because large waste heaps required TUK collection workers a long time to load waste. Now the collection time was cut considerably, but the collection truck in the north part of Khoroo 3 still takes only one trip. Since many of restaurants and café receive a collection service twice a day, the collection vehicle waits for a whole by the second collection time in the afternoon.

TUK should review its collection schedule and arrangement of collection vehicles in order to achieve the real increase in the collection efficiency.

b. Introduction of Separate Collection System

b.1 Lessons

- a) To eliminate the waste heaps by improving the waste collection system is the essential first step toward the introduction of the separate collection.
- b) The separate collection cannot collect much recyclables due to the interception by the cleaners at this moment.
- c) The contents of waste collected by the recyclable waste can be very suitable for the raw material of RDF.

b.2 Recommendations

- a) The separate collection should be introduced in the three years after the entrance collection system is introduced. Even if the separate collection has to be quickly introduced in, it should wait for one year after the entrance collection started.
- b) To sort recyclables by cleaners is the effective way as the waste source separation.

6.8 Organization of Waste Pickers

6.8.1 Background

In developing countries, many waste pickers earn their livelihoods at disposal sites by picking valuables. The disposal sites, where waste pickers are working, are so called open dumping conditions and fires, odors and scattering of the waste causes serious negative impacts on the surrounding environment.

It is not an exceptional case in Ulaanbaatar, all the three official disposal sites in the city are so called open dump conditions and many waste pickers are working there. There are 300 waste pickers working in the Ulaan Chuluut Disposal Site (UCDS) which is the biggest disposal site in the city and 90 % of the waste is disposed there.

This study commenced in December 2004. The master plan formulated that a new Narangiin Enger Disposal Site (NEDS) will be developed and the existing UCDS will be closed because remaining landfill volume is very limited.

Several pilot projects are implemented in order to verify the feasibility of the plan. It is planned at new NEDS that sanitary landfill will be implemented and the waste pickers will not be allowed to work inside landfill area. In order to support waste pickers livelihoods, a sorting yard will be constructed next to the landfill site and those waste pickers are encouraged to work at the sorting yard instead of the landfill site. The residue, which will be generated at the sorting yard and mainly consists of waste paper and plastics, is planned to be used as a raw material for RDF production.

The phase 3 study commenced in April 2006 and a pilot project for separate collection, one is the recyclable waste and the other is non-recyclable waste, is planned to be implemented in order to verify the effectiveness of the master plan in the apartment area of Chingeltei Duureg. The separated waste, which consists of recyclable, plastics and paper, will be transported to the sorting yard which is constructed at UCDS and WPs will salvage recyclables and the residue will become raw material for RDF.

Whether this PP and the future sanitary landfill will be feasible or not, highly depends on the WP's cooperation. An opinion survey for the WPs was conducted and workshops for the new NEDS were held several times. It was found that the organization of the WPs is very important in order for WPs to follow certain rules and operate NEDS under sanitary conditions.

Therefore, in order to formulate trust among WPs, C/P and the Study team at first, it was decided that a sorting yard and fair trading centre, which was strongly requested by the WPs, would be constructed in UCDS. Furthermore, in order to operate the sorting yard and fair trading centre in a controlled manner, organization of the WPs become essential.

Weekly meetings with WPs were held in phase 3 of the study. Around 300 WPs were divided into 10 groups and 10 group leaders were selected from each group with one chairperson selected to represent all the WPs. So, the weekly meetings were organized among these group leaders and chairperson together with C/P and the Study Team.

According to the meetings with WPs, we have found that they have an unstable social status and many of them do not even have a national ID card. Due to this, they could not enter the municipal buildings and could not receive any medical services.

In order to solve these problems and upon the request of the WPs, ID cards were issued under the status of worker in the disposal site and signed and chopped by Nuuts Co., Ltd. These processes for organizing WPs and obtaining improved social status are presented below.

6.8.2 Weekly WPs Meetings

Weekly WPs meetings commenced on 3rd May 2006. By 14 December 2006, 26 weekly meeting were held. As of 6th of July 2006, 9 weekly meetings were held and various topics were discussed and summarized as follows.

Date	Topics	Agreed Matter
1 st Meeting (3 May 2006)	<ul style="list-style-type: none"> Explanation of PP in UCDS especially, sorting yard and fair trade centre project. Schedule of PP 	<ul style="list-style-type: none"> Meeting will be held on a weekly basis. Date and time of the meetings
2 nd Meeting (13 May 2006)	<ul style="list-style-type: none"> Registration of WPs Grouping and number of member in each group Selection of group leader Selection of chairman 	<ul style="list-style-type: none"> Number of groups and number of each member will be decided by next meeting. Meetings will be held at every Thursday.
3 rd Meeting (18 May 2006)	<ul style="list-style-type: none"> Selection of group leader Registration of members. Rule for qualification of members Identification of Members 	<ul style="list-style-type: none"> 8 groups and 173 WPs were registered. Those who do not want to be a member of any group are not allowed to use facilities such as sorting yard and fair trading centers. Members shall be more than 16 years old and those who are working on a permanent basis. People under 15 years old are not allowed to be members. The method of identification of registered members was discussed and the issuance of ID card is selected. According to the discussion, there are many people who do not have national ID cards and their children can not enter school due to this problem. Separate meeting will be organized to solve this issue.
4 th Meeting (25 th May 2006)	<ul style="list-style-type: none"> Progress of Registration of WPs Design of ID card Number of members in each group 	<ul style="list-style-type: none"> 10 groups, 234 WPs were registered Photo, ID number, Fathers name, Given name, Date of birth, Sex, Validity of ID card, Nuuts Director's sign and shop will be appeared in the card. Maximum number of group members shall be 28 or less. Those who want to join the group shall be approved by other members in same group before joining the group.
5 th Meeting (8 th Jun 2006)	<ul style="list-style-type: none"> Progress of registration of WPs Photograph of each WPs were taken for ID Card Commencement of the construction of Sorting yard and realignment of the on site road Layout of the fair trade center. 	<ul style="list-style-type: none"> Photograph will be taken for every WP on 10th Jun 2006 from 10:00am at UCDS. Rule was made that on site road shall not be blocked by any temporary buildings and access of the truck shall not be disturbed. Waste shall be disposed at designated place and the west of the road shall be kept clean. Storage area at fair trade center shall be possessed by the recycle traders under the condition that the traders should p be appeared everyday to purchase recyclables from WPs.
1 st Photo for ID card (10 th Jun 2006)	<ul style="list-style-type: none"> Photograph was taken for ID Card 	<ul style="list-style-type: none"> 10 groups, 264 WPs were registered. 181 WPs appeared to have their photo taken.
6 th Meeting (15 th Jun 2006)	<ul style="list-style-type: none"> Progress of Photo taken Location of fair trading center Operation rule for fair trading center. Maintenance rule for on site road. National Registration 	<ul style="list-style-type: none"> One more day will be prepared for taking photos for ID cards. Those who do not appear for photographing will be deleted from the group members and ID card will also not be issued. The list of the people who did not appear was handed over to group leaders. Location of the fair trade center was decided. The location shall be at the west of the warm garage. Discussion was made who will be in charge of the cleaning, heating, and maintenance of the fair trading building. Decision will be made at next meeting. Several rules were discussed such as no obstruction to the traffic, keep clean at the west of the road and ride on the truck was prohibited. Director and a staff from city registration office attended the meeting and gave an explanation of how to take a national ID card to those who do not have national ID card.
2 nd Photo for ID Card (17 th Jun 2006)	<ul style="list-style-type: none"> Photograph was taken for ID Card for the second time. 	<ul style="list-style-type: none"> 41 WPs appeared for taking photos for ID card. Total 222 photos were taken.



Weekly WP meeting with group leaders



Projector and PC is using for the WP meeting since electricity became available at warm garage in UCDS which was constructed under the Study.



Photograph was taken at warm garage for ID card.



Deputy director of bureau of Civil Registration is explaining for the process of issuing National ID card.

6.8.3 Issue of ID card to WPs

a. Background

Several meetings were held among the WPs, Nuuts and the Study team and discussions about grouping and registration of WPs. Something to identify the registered members was required and a few alternatives such as uniform and vest were proposed. Finally, the issuance of ID card was adopted. According to the Mongolian law, a person above 16 years old needs to apply for a national ID card but we found that there are many WPs who do not have this ID card because of the following reasons.

- There are people who came from the country side and they have no documents to certify their birth in Mongolia.
- National ID card was submitted to the persons who offered them a job but the card was not returned.
- National ID card was sold in order to earn money.

According to the field survey conducted during the photographing for ID cards, around 60 % of WPs did not have a national ID card and thus they could not receive basic public services, medical services and they could not enter their children to a school.

ID cards were proposed to be issued under the status of disposal site worker and signed and chopped by the Nuuts Co., then, all the WPs agreed to issue those ID cards.

b. Design of ID card

The design of the ID card was discussed in the 4th WP meeting and it was decided that the following items should appear on the card.

IDENTIFICATION CARD		
Photo	ID Number	
	Father's name	
	Given name	
	Date of Birth	Gender
	Date of Issue	Validity Period
Registration Number	Signature & Stamp of Issuing Authority	

c. Taking Photograph for ID card

The first photographing session was held on 10th Jun 2006 and the second one was held on 17th Jun 2006. In spite of it being a weekend, around 180 WPs appeared for the first session and around 40 appeared for the second session. The expectation for ID cards from WPs was very high and there was a queue waiting for photographing when we arrived at the site. All the WPs attended this photograph session actively and independently.



Check with registered list before taking a photo.



Queuing for registration



Mother is wiping her son's face before taking a photo



Taking a photo for WPs at the warm garage which was built under the JICA Development Study



Some WPs came on horses from remote area



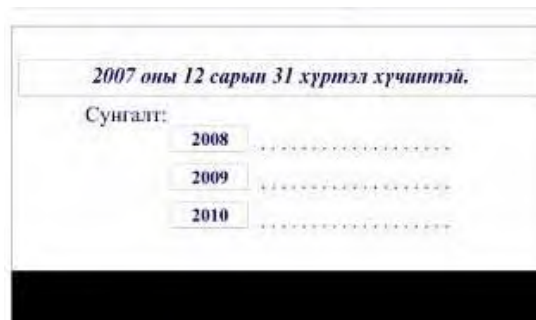
Confirmation of the person himself by PC

d. Issue of ID Card

The ID card was designed to be valid until 31st December 2007 and it will be renewed every year thereafter. The material of the ID card is hard plastic and the size is designed for inserting into a wallet. One ID card cost 2,500 Tg after negotiation with the supplier which is Global Design Co., Ltd.



ID Card front side



ID Card back side

e. Waste Picker's Fund

Waste picker's fund was developed by WPs by themselves in order to help each other in case of any unforeseen incidents. There are 10 groups and each group leader is collecting money from his group members.

All the group leaders agree that this money will be handed to Nuuts Co., and kept and controlled by the Nuuts Co. The president of the Nuuts Co has prepared regulation of this fund and contents of the regulation are now under discussion among WPs and Nuuts. Draft regulation is attached in Ch 2.8.

Development of this foundation is the first step that WPs will form an official organization and important issue is that this development is not forced by the third party or Nuuts co but is proposed and initiated by them.

f. Fire Fighting Rule

Fire in the disposal site will cause not only troubles to surroundings but also will lose opportunities for WPs to earn money by scavenging valuables from the wastes. In order to solve this problem, intensive meetings were held among WPs, Nuuts and JICA study team. Fire fighting team was formed from each group. Each group in charge three days a month as a fire



fighting team in order to help for extinguishes fire with Nuuts Co. A fire fighting team is not only help for extinguishes but also inform to the Nuuts Co when they found any fires in the landfill site.

Fire fighting team wore special vests and make him easy to differentiate from other WPs and Nuuts co.

The waste pickers' fire fighting schedule is attached as a reference

g. Clean Up Activity

Clean up activities were carried out initiated by Nuuts Co and waste pickers. Waste pickers were working voluntarily to clean up their working places. These behaviors show the change of their mind that they need to form an organization to improve their working conditions. It is a very surprising behavior that WPs were used to be an individual and not to act as an organized manner.



6.8.4 Findings

- In order to implement the sanitary landfilling, in particularly to carry out immediate soil cover to the waste, in the future disposal site, it is essential for WPs not to work at the landfill site and WPs should be removed from the working face of the landfill site. Therefore, the organization of WPs and smooth transfer of working place from landfill site to the, so called, sorting yard and/or recycling facilities will be required. Organization of the WPs is the first step to implement sanitary landfilling and it was proved to be possible at least for WPs working at UCDS.
- The level of WPs in UCDS is high especially in literacy and they can understand our instructions, table and sentences, therefore, it was easy for us to obtain mutual understanding compared with other developing countries.
- There was a good supervisor in UCDS who was a former waste picker and became a Nuuts employee. She has good leadership skills and all the WPs trust her. Success of the organization of WPs is highly dependant on the person who has strong leadership and trust from WPs.
- Continuation of the WPs meeting is the essential to maintain and improve mutual understanding between WPs and Landfill operators such as Nuuts. These relations should be kept until shifting to new disposal site, NEDS.

6.8.5 Attachment

a. Waste Pickers Fund

Following is the Regulation of waste picker's fund and form of minute of meeting for discussing the usage of the fund when necessary.

Approved by Mr. J.Jamboldorj, “Nuuts” Company Director
/signed and stamped/

**REGULATION OF WASTE PICKERS’ FUND USAGE AT THE
ULAANCHULUUT DISPOSAL SITE, KHOROO NO 4,
SONGINOKHARKHAN DISTRICT**

7 July, 2006

1. Purpose

The Fund that was established by WPs initiative shall be utilized to help members who are sick or somebody passed away, to get medical and sanatorium treatment, to organize certain events, to get civil registration documents and to provide one-time assistance for those who is having hard livings.

2. Fund Accounts

- Every week the group leaders shall collect 600 togrogs from own members with registration book;
- Those members who are not able to pay his/her own share shall be involved in cleaning up or related activities that will be considered as their contribution to the Fund;
- The group leaders shall transfer collected cash money to the Nuuts Company accountant who will visit the disposal site and deposit money as a company revenue;
- The Nuuts Company will introduce special financial booking registration for the Fund.

3. Fund Usage

- In order to utilize fund money, every group shall undertake each group’s meeting;
- The final and common decision shall be based upon introduction of each group decisions among the group leaders;
- The Fund revenue and expenditure shall be reported by Nuuts Company accountant every week to the group leaders;
- The two types of template for group meeting’s minutes shall be drafted by Nuuts Company;
- Each group shall retain its rights on utilization of the Fund depending on how each group is contributing to the Fund;
- In case of big fires at the disposal site, those who will be involved additionally in fire fighting activities shall be remunerated from the Fund.

NUUTS COMPANY
GROUP No MINUTES OF MEETING No.....

The meeting was held on, with total number of members, and was chaired by group leader.

The following issues were discussed:

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Q & A:

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Members' proposals:

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.....

Decision:

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.....
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.....

Minutes noted by/ /

GROUP LEADERS' MINUTES OF MEETING No.....

The meeting was held on, with total number of group leaders, and was chaired by WP's chairman.

The following issues were discussed:

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Q & A:

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Members' proposals:

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Decision:

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.....

Minutes noted by/

Witnessed by Nuuts Company Site Supervisor/Ch.Battungalag/

b. **Schedule for Fire Fighting**

Waste pickers' fire fighting schedule																															
No	Group leaders	Duration between July 23 - August 21, 2006																													
		July										August																			
		23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Ch.Ganbold	+	+																												
2	B.Gantsetseg			+	+	+																									
3	G.Avraga-Och							+	+																						
4	P.Tungalag									+						+															
5	S.Gan-Erdene												+	+	+																
6	S.Tsevelmaa															+	+	+													
7	Ts.Amgalan																		+	+											
8	B.Uranchimeg																				+	+		+							
9	G.Mungun																								+	+		+			
10	L.Luvsantsedev																											+	+	+	+
	Agreed by (signed by all Group Leaders)																														