

## **TSUNAMI RECOVERY WASTE MANAGEMENT PROGRAMME**

### **MONTHLY UPDATE – APRIL 2006**

#### **1. APRIL HIGHLIGHTS**

Significant progress was made during April on the Tsunami Recovery Waste Management Programme (TRWMP) in Pidie District. The first phase (Cell 1) of rehabilitation at the 'Km 23' dumpsite at Cot Padang Lila was completed, and 1,380m<sup>3</sup> of waste was cleared from Sigli beach and transported to Km 23 for disposal (*pictured right, before and after clearance at the beach*).



In Kota Banda Aceh, 17,645m<sup>3</sup> of tsunami waste was cleared from villages and taken for sorting at Gampung Jawa landfill, and 3,068m<sup>3</sup> of municipal solid waste (MSW) was collected in the city.

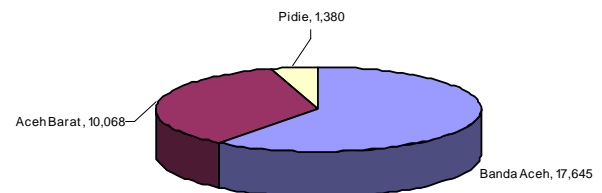


TRWMP staff worked with DKPLH (Implementing Partner for Aceh Barat) to re-design the city cleaning strategy for Kota Meulaboh. This included re-mapping of MSW collection, street sweeping and drainage clearance routes, and transportation of solid waste from the local hospital. Also in Aceh Barat, 13 earthquake/tsunami damaged buildings were demolished including 1 mosque, 10 houses and 2 government properties: 1,834m<sup>3</sup> of concrete and bricks, 1,850kg of scrap metal and 2m<sup>3</sup> of wood were recovered from these demolitions.

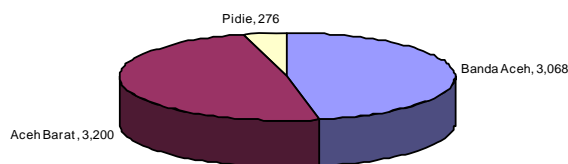
#### **April in figures:**

Tsunami waste cleared	29,029m <sup>3</sup>
Wood segregated for reuse	746m <sup>3</sup>
Roads made with crushed rubble	6.5km
Municipal waste collected	6,544m <sup>3</sup>
Temporary workers with TRWMP	1,746

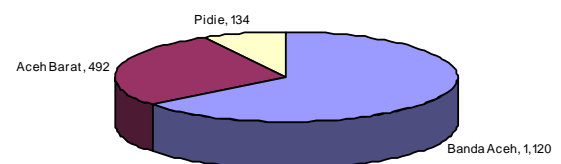
Tsunami waste cleared (m3), TRWMP, April 2006



Municipal waste collected (m3), TRWMP, April 2006



No. of people in temporary employment, TRWMP, April 2006



## 2. LOCATION OF TRWMP ACTIVITIES

District	Implementing Partner	Letter of Agreement
Kota Banda Aceh	Dinas Kebersihan dan Pertamanan (DKP)	March 2005
Aceh Barat / Nagan Raya	Dinas Kebersihan, Penertiban dan Lingkungan Hidup (DKPLH)	May 2005
Pidie	Dinas Pendapatan, Kebersihan dan Pertamanan (Dispenda)	January 2006
Aceh Jaya	Dinas Pendapatan, Kebersihan dan Pertamanan (Dispenda)	March 2006
Nias	Dinas Permukiman dan Prasarana Wilayah (KIMPRASWIL)	Under Assessment
Nias Selatan	Dinas Permukiman dan Prasarana Wilayah (KIMPRASWIL)	Under Assessment
Aceh Besar	Kantor Kebersihan dan Pertamanan (KKP)	Under Assessment

## 3. KEY OUP TUPS AND ACHIEVEMENTS TO END APRIL 2006

### 3.1 KOTA BANDA ACEH

#### 3.1.1 Key Achievements in April 2006

- Clearance of 17,645m<sup>3</sup> of tsunami waste from Gano and Kajhu, and collection of 3,068m<sup>3</sup> of MSW from around Banda Aceh.
- Continued development of furniture manufacturing project (extension of workshop area, construction of showroom), and the completion of an additional 48 units of furniture.
- Discussions held with UN agencies and NGOs on options for producing bulk orders of school tables and chairs from reclaimed tsunami wood, and design and manufacture of sample units of school furniture.



*Samples of school furniture made with reclaimed tsunami wood, made at DKP/UNDP workshop at Gampung Jawa landfill site.*

- Tender submissions for the explosive demolition of the PDAM Water Tower were received from bidders and following consultation with DKP, a successful bidder (Jet Demolition) was selected. UNDP worked with Jet Demolition and DKP to plan logistics for the demolition (tentatively scheduled for June 2006).

- Support provided to other agencies and NGOs in land clearing and rehabilitation of community facilities (through loan of heavy equipment), as follows:

No.	Organization's Name	Working Area	Activity
1	UN Habitat	Peulanggahan	Land clearing for shelter project
2	GTZ	Cling Cot Arun	Land clearing and compost-making (pilot project)
3	KOPAMIL	Meuraxa	Land clearing
4	MDF	Lambung & Gampung Baru	Land clearing for shelter project
5	Panglima Laot	Lampulo	Fishery program

- Recruitment of a Programme Assistant for Waste Management (Kota Banda Aceh) and a Financial Assistant to cover TRWMP activities in Kota Banda Aceh, Pidie and Aceh Besar.
- Employment of 20 student Field Monitors to undertake random daily sampling of tsunami waste collection, cash for work, demolition and heavy equipment field activities.

### 3.1.2 Selected Project Visits to TRWMP Projects in April 2006

- 5<sup>th</sup> April: President Paul Wolfowitz and a senior delegation from the World Bank.

### 3.1.3 Status against Key Performance Indicators

Key Performance Indicator	April 2006	Total TRWMP in Kota Banda Aceh*
Tsunami waste cleared (m <sup>3</sup> )	17,645	284,425
Municipal waste collected / disposed (m <sup>3</sup> )	3,086	41,172
Sawah / tambak /land rehabilitated (ha)	1.0	25.0
Tsunami / earthquake buildings demolished (no.)	0	118
Temporary workers (average no. per day)	1,120	1,108
Male workers (%)	49%	47%
Female workers (%)	51%	53%
Internally Displaced Persons (IDPs) amongst workers (%)	69%	69%
Ex-Free Aceh Movement (GAM) amongst workers (%)	1%	1%
Beneficiaries employed in waste livelihood projects (average no. per day)	40	17
Heavy equipment leased (average no. per day)	88	85
Dumpsites upgraded / rehabilitated (no.)	-	1
Waste cells (ha)	-	7
Daily cover for waste area (ha)	-	11
Recovered materials beneficially recycled		
Roads rehabilitated / reclaimed with rubble (km)	2.5	17.8
Timber stockpiled for future re-use (m <sup>3</sup> )	242	12,605
Timber provided to NGOs for reconstruction efforts (m <sup>3</sup> )	18	43
Recovered wood processed into condition suitable for recycling (m <sup>3</sup> )	51	193
Furniture units (e.g. table, cupboard, etc) completed (no.)	48	134

\* Includes data from before-MDFANS involvement (pre-September 2005)

### 3.1.4 Key Activities to Date

- Capacity building with Dinas Kebersihan dan Pertamanan (DKP).
- Clearance / recovery of tsunami generated wastes from private / government land.
- Resumption of municipal solid waste (MSW) collection.
- Temporary employment of Internally Displaced Persons (IDPs).
- Building demolition project.
- Rehabilitation / reclamation of roads using tsunami rubble.
- Provision of recovered wood for NGO reconstruction projects.
- Carpentry workshop for re-use of tsunami timber and furniture manufacture demonstration project.
- Upgrade of Kota Banda Aceh municipal dump at Gampung Jawa to interim engineered landfill.
- Site search (with GTZ) for permanent sanitary landfill for Kota Banda Aceh and Aceh Besar.

### 3.1.5 Key Activities proposed for May 2006

In addition to the continuation of on-going activities from April, the following new activities are planned for May 2006:

- Demolition of housing foundations / land clearance of 5 villages in Kajhu to support Canadian Red Cross shelter projects.
- Release Request for Proposals (RFP) for the rehabilitation of Gampung Jawa landfill (closure of existing cell, provision of new interim landfill cell and workshop construction).
- Develop projects and agreements for production of school furniture from reclaimed tsunami wood.
- Continue recruitment for position of Programme Associate for Kota Banda Aceh, Pidie and Aceh Besar, and Carpentry Foreman for the TRWMP.

## 3.2 ACEH BARAT / NAGAN RAYA

### 3.2.1 Key Achievements in April 2006

- Tsunami waste clearance activities have been expanded to Samatiga, Meurebo, Kaway XVI and Bubon sub districts in Aceh Barat District and Kuala, Seunagan and Seunagan Timur sub-districts in Nagan Raya District. By the end of April approximately 98% of tsunami wastes (6,500 m<sup>3</sup>) from Meurebo temporary dumpsite have been removed to Lapang final dumpsite for segregation and 80% of recovered land has been refilled with soil and concrete debris collected from demolition projects.

- Approximately 12,669m<sup>3</sup> waste was sorted into seven categories. The waste sorting activity in Lapang final dumpsite is currently engaging 207 workers.
- 13 earthquake/tsunami damaged buildings were demolished (1 mosque, 10 community houses and 2 government properties). Approximately 1,834m<sup>3</sup> of concrete and bricks, 1,850kg of scrap metal and 2m<sup>3</sup> of wood were recovered.
- Capacity building support was provided to DKPLH to re-design the city cleaning strategy for Kota Meulaboh. This has included:
  - The collection of municipal solid waste within Aceh Barat and Nagan Raya districts has been remapped, with truck drivers now following a route developed by TRWMP staff. Approximately 140m<sup>3</sup> of solid waste is collected in Aceh Barat and Nagan Raya daily.
  - Drainage laborers and street sweepers have been permanently assigned to certain routes (based on an estimate of one drainage laborer to clean and rehabilitate 50m drainage per day and one street sweeper to clean 300m street per day). This strategy has increased the coverage of cleaned area in Kota Meulaboh to 15 major roads and 87 small roads.
  - DKPLH has dedicated one DT-120 PS to support the transportation of solid waste from the local hospital (previously handled by the French Red Cross).
- Solid waste was collected from Temporary Living Centers (TLCs) and Internally Displaced Persons (IDP) Camps in Johan Pahlawan, Meurebo, Samatiga, Kaway XVI, and Bubon sub-districts (19 TLCs/IDP camps). In Nagan Raya District, the collection covers Kuala sub-district (3 IDP camps).
- Support provided to other UN Agencies and NGOs in land clearing and rehabilitation of community facilities (loan of one backhoe, one bulldozer and 2 PS-190 DT), as follows:

No.	Organization's Name	Working Area	Activity
1	Pusat Pengembangan Potensi Pesisir dan Lautan	Desa Pasie Pinang	Rehabilitated 2km village road, 2km drainage, and 4km of communities' rice field
2	Islamic Relief	Desa Blang Beurandang & Suak Pandan	Rehabilitated 2km village roads and 5.5ha relocation area for 140 houses construction
3	Kantor Kebersihan Nagan Raya	Ujong Sikuneng dumpsite	Expanded 1ha of dumpsite, rehabilitate 230m entrance road to the dumpsite, constructing 100m ring road by the dumpsite, and constructing 500m drainage
4	Yayasan Tanggul Bencana Indonesia (YTBI)	Samatiga	Continuing to rehabilitate 30 fishponds in Samatiga (@ 35x50m)

- A Financial Assistant for Waste Management was recruited to work in Aceh Barat, Nagan Raya, Aceh Jaya and Nias (based in Meulaboh), and started work on 24<sup>th</sup> April.

### 3.2.2 Status against Key Performance Indicators

Key Performance Indicator	April 2006	Total TRWMP in Aceh Barat & Nagan Raya*
Tsunami waste cleared (m <sup>3</sup> )	10,069	85,117
Municipal waste collected / disposed (m <sup>3</sup> )	3,200	12,365
Sawah / tambak /land rehabilitated (ha)	5.2	18.7
Tsunami / earthquake buildings demolished (no.)	13	41
Drains cleared (average km per day)	1.9	1.5
Roads swept (average km per day)	14.8	14.4
Temporary workers (average no. per day)	492	500
Male workers (%)	48%	51%
Female workers (%)	52%	49%
Internally Displaced Persons (IDPs) amongst workers (%)	97%	98%
Ex-Free Aceh Movement (GAM) amongst workers (%)	4%	6%
Beneficiaries employed in waste livelihood projects (average no. per day)	-	-
Heavy equipment leased (average no. per day)	53	52
Dumpsites upgraded / rehabilitated (no.)	-	2
Waste cells (ha)	-	-
Daily cover for waste area (ha)	3	12
Recovered materials beneficially recycled		
Roads rehabilitated / reclaimed with rubble (km)	4.0	7.2
Timber stockpiled for future re-use (m <sup>3</sup> )	500	2,615
Timber provided to NGOs for reconstruction efforts (m <sup>3</sup> )	10	60
Recovered wood processed into condition suitable for recycling (m <sup>3</sup> )	-	-
Furniture units (e.g. table, cupboard, etc) completed (no.)	-	-

\* Includes data from before-MDFANS involvement (pre-September 2005)

### 3.2.3 Key Activities to Date

- Capacity building with Dinas Kebersihan, Penertiban dan Lingkungan Hidup (DKPLH).
- Clearance/recovery of tsunami generated wastes from private/government land.
- Resumption of MSW collection.
- Temporary employment of IDPs.
- Building demolition project.
- Initial upgrade of Lapang municipal dumpsite.
- Rehabilitation of town drainage via employment of drainage workers.
- Clean up of streets via employment of street sweepers.

### 3.2.4 Key Activities Proposed for May 2006

In addition to the continuation of key activities from April, the following new activities are planned for May 2006:

- Hygiene promotion and environmental education in Kota Meulaboh.
- To amend the TRWMP LoA until December 2006.
- To continue development of projects for downstream waste management-related livelihoods, such as recycling and composting, in Aceh Barat and Nagan Raya (through the RFP for Livelihoods).
- To conduct technical assessment on further rehabilitation of Lapang dumpsite and options for a long-term sanitary landfill for Aceh Barat.
- Finalise recruitment of Programme Associate for Aceh Barat, Nagan Raya, Nias and Aceh Jaya.

## 3.3 PIDIE

### 3.3.1 Key Activities in April 2006

- Upgrading of rehabilitated dumpsite at Cot Padang Lila ('Km 23'), including working with students from a local technical college in Sigli to undertake a topographical survey of the site.
- 1,380m<sup>3</sup> of municipal and tsunami wastes which had been dumped at Benteng (Sigli beach) was cleared and transported to Km 23 for disposal. Prior to these wastes being removed, 29 bottles, 0.5m<sup>3</sup> wood, 31kg scrap metal and 15kg plastics were separated from the waste for recycling.
- Drainage cleaning in Kota Sigli is now 27% complete.
- Site visit to Km 23 dumpsite by Gtz landfill expert.



*Nearing completion of engineering works for Cell 1 at Km 23 dumpsite, April 2006.*

- Support local communities in the rehabilitation of community roads, through lending of heavy equipment, as follows:

No.	Organization's Name	Working Area	Activity
1	Kecamatan Sakti	Meunasah Cut up to Pulo Krumbok Cot Murong	Rehabilitated 12 km of community irrigation system by using excavator
2	M.T.Ss Teupin Raya	M.T.Ss Teupin Raya	Rehabilitation of school ground level (flood protection) by using excavator and trucks

### 3.3.2 Status against Key Performance Indicators

Key Performance Indicator	April 2006	Total TRWMP in Pidie
Tsunami waste cleared (m <sup>3</sup> )	1,380	1,944
Municipal waste collected / disposed (m <sup>3</sup> )	276	447
Sawah / tambak /land rehabilitated (ha)	-	-
Tsunami / earthquake buildings demolished (no.)	-	-
Drains cleared (average km per day)	0.4	0.4
Roads swept (average km per day)	4.5	2.4
Temporary workers (average no. per day)	134	120
Male workers (%)	72%	67%
Female workers (%)	28%	33%
Internally Displaced Persons (IDPs) amongst workers (%)	67%	77%
Ex-Free Aceh Movement (GAM) amongst workers (%)	-	-
Beneficiaries employed in waste livelihood projects (average no. per day)	-	-
Heavy equipment leased (average no. per day)	25	20
Dumpsites upgraded / rehabilitated (no.)	-	1
Waste cells (ha)	-	-
Daily cover for waste area (ha)	-	-
Recovered materials beneficially recycled		
Roads rehabilitated / reclaimed with rubble (km)	-	-
Timber stockpiled for future re-use (m <sup>3</sup> )	0.5	8.5
Timber provided to NGOs for reconstruction efforts (m <sup>3</sup> )	-	-
Recovered wood processed into condition suitable for recycling (m <sup>3</sup> )	-	-
Furniture units (e.g. table, cupboard, etc) completed (no.)	-	-

### 3.3.3 Key Activities to Date

- Capacity building with Dinas Pendapatan, Kebersihan dan Pertamanan (DISPENDA).
- Upgrading of dumpsite at Km 23 and planning of rehabilitation works at Mutiara dumpsite.
- Resumption of MSW collection (provision of dumptrucks and temporary workers), drainage cleaning, and street sweeping in Kota Sigli.
- Waste segregation by temporary workers at the existing dumpsite in Benteng (Sigli beach).

### 3.3.4 Key Activities Proposed for May 2006

In addition to the continuation of the key activities from during April, the following new activities are planned for May 2006:

- Finalization of the upgrading process at Km 23 dumpsite.
- Finalize site plans and work schedule for the rehabilitation and upgrading of Mutiara dumpsite.
- Review options for rehabilitation of 2 dumpsites at Ulee Gle.
- Develop drainage cleaning activity in Kabupaten Pidie.

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## 3.4 ACEH JAYA

### 3.4.1 Key Achievements in April 2006

- An environmental review and GPS surveying was carried out at the 2 potential dumpsite locations, this clearly identified Option 2 (Gunung Tanggoh) as the preferable site. Following this, local workers carried out brushing of vegetation at Gunung Tanggoh so site development plans and a work schedule can be finalized as a priority.
- A Programme Assistant for Waste Management was recruited to work in Aceh Jaya. He is due to start work on 15<sup>th</sup> May.



*Representatives from Dispenda, the local community, IRC and UNDP carrying out GPS boundary mapping and an environmental review of the potential dumpsite site at Gunung Tanggoh.*

### 3.4.2 Key Activities to Date

- LOA for Aceh Jaya under TRWMP signed by Bupati Aceh Jaya (March 2006).

- Initial assessment of potential sites for a temporary dumpsite for Calang carried out with support of Dispenda, local Keuchik, BRR, Oxfam and IRC.
- Dispenda agreed to buy 3 ha land in Gunung Tanggoh to be used for the dumpsite.

### 3.4.3 Key Activities Proposed for May 2006

- Finalization of site plans and work schedule for the Calang dumpsite, including topographic site surveying.
- Assessment to be carried out in coordination with local Cemat of types and quantities of tsunami waste to be cleared in sawah (paddy fields) in the Kreung Sabee Sub District. Assessment to include logistics of getting heavy equipment to the sites, and options for location of a temporary dumpsite for the tsunami waste prior to segregation.
- Preliminary needs assessment of waste management situation in Lamno Sub District.

## 3.5 NIAS / NIAS SELATAN

### 3.5.1 Key Achievements in April 2006

- Field assessments undertaken in Nias Selatan in coordination with staff from the local KIMPRASWIL office. An initial environmental review was carried out at 2 potential dumpsites near Teluk Dalam (and a 3<sup>rd</sup> site was identified), and the environmental conditions within Teluk Dalam town were also assessed. Existing NGOs and international agencies (SAB-SAS, ICMC, ILO) working in the area were consulted during the assessment.
- Continued coordination on project planning for the Lahewa area with Cemat's office and ACTED.
- A Programme Assistant for Waste Management was recruited to work in Nias. He is due to start work on 22<sup>nd</sup> May.



*Current solid waste management conditions in Teluk Dalam, Nias Selatan.*

### 3.5.2 Key Activities to Date

- Preparation of draft LOA covering construction of temporary dumpsites, MSW collection and other assistance for Nias and Nias Selatan Districts.
- Preliminary assessment on the existing/planned dumpsites in Gunung Sitoli, Lahewa and Teluk Dalam.
- Coordination with other agencies and NGOs working in Nias (UNICEF, ACTED, HELP, ILO, SAB-SAS and FRC).

### 3.5.3 Key Activities Proposed for May 2006

- Agreement of draft LOA with Bupati Nias Selatan and KIMPRASWIL Teluk Dalam.
- Continued development of work plan / agreements between waste partners in Lahewa, and agreement on ownership issues surrounding potential dumpsite area to the east of the town.

## 3.6 ACEH BESAR

### 3.6.1 Key Achievements in April 2006

- Site assessment and community consultation undertaken in Lhok Nga and Lampu'uk to gauge types and quantities of tsunami waste requiring clearance. The assessment identified *mixed tsunami waste in sawah* (paddy fields) and *housing foundations* as the priority waste types in the area. NGOs working on reconstruction projects in the Lhok Nga area (CRS, IMC) were also identified to ensure coordination on tsunami waste clearance projects.
- Draft Letter of Agreement (LOA) for Aceh Besar prepared and discussed with KKP staff.
- A Programme Assistant for Waste Management was recruited to work in Aceh Besar (as well as Kota Banda Aceh). He is due to start work on 29<sup>th</sup> May.



*Tsunami rubble and residual housing foundations present a serious obstacle to reconstruction efforts and rehabilitation of sawah (paddy fields) in Lhok Nga, Aceh Besar.*

### 3.6.2 Key Activities to Date

- Meeting with Kantor Kebersihan dan Pertamanan (KKP) to discuss TRWMP.
- Preliminary assessment of tsunami waste around Lhok Nga.
- Preliminary assessment of waste disposal options and current situation in/around Jantho.

### 3.6.3 Key Activities Proposed for May 2006

- Finalise LOA with KKP and arrange for LOA signing by UNDP and Aceh Besar Bupati.
  - Preparation of initial site plan and schedule of works for Jantho Temporary Dumpsite.
  - Liaise with NGOs and prepare of workplan for tsunami waste clearance around Lhok Nga.
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## 4. TRWMP – LIVELIHOODS ACTIVITIES

A Request for Proposals (RFP) for Organizations / Firms to Manage Tsunami Waste Management Related Livelihoods Activities has now been advertised. The 'Livelihoods Component' will support livelihood restoration and creation projects related to the waste management process in order to maximize the reuse of recovered materials, minimize the volume of waste requiring ultimate disposal, and create opportunities for viable recycling business startups. For these projects, UNDP will work with interested NGOs, the private sector, donors and government.

Copies of the RFP documentation and supporting information can be downloaded from <http://www.undp.or.id/procurement/>.

This RFP has a closing date of 1<sup>st</sup> June 2006.

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## 5. TRWMP BACKGROUND

The Tsunami Recovery Waste Management Programme (TRWMP) aims to build capacity in government, create immediate employment and longer-term livelihoods in waste management whilst benefiting the environment through collection, recovery and recycling of waste materials for use in rehabilitation and reconstruction.

The TRWMP commenced in March 2005 and is being executed by the United Nations Development Programme (UNDP) through the Aceh Emergency Response & Transitional Recovery (ERTR) Programme in partnership with the Badan Rehabilitasi dan Rekonstruksi (BRR), and implemented through partnerships with local Government in the target districts. Since 26<sup>th</sup> September 2005 the programme is being funded through a US\$15.2 million grant from the Multi-Donor Fund for Aceh and North Sumatra (MDFANS).

This programme has been designed to provide municipal / district government with financial and technical support to achieve the following results:

- (1) Resumption of MSW collection & disposal and clearance / recycling of tsunami derived wastes via the implementation of Tsunami Waste Recovery Facilities (TWRFs);
- (2) The rehabilitation of existing dumpsites, provision of temporary/ emergency dumpsites and in the longer term, sanitary landfills for enhanced, safer waste disposal;
- (3) Interim livelihood restoration and longer term waste management livelihood creation via implementation of waste recycling/ recovery projects; and
- (4) Effective and efficient management, monitoring and oversight of the overall programme on behalf of the MDFANS donor partners.

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## 6. UNDP WASTE TEAM CONTACTS

If you would like to find out more about the work of the TRWMP, please do not hesitate to contact one of the UNDP Waste Team.

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