Case Study and Knowledge Sharing on Waste Management
North/South Cooperation Across the Border in Sudan

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Gosai Ahmed, MENRDPD (Sudan)
Diseremo Sebit John, JCC (South Sudan)
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1. Background

1.1 History of Sudan SWM Project

**Framework of the Project**

- **Overall project**: Improved sustainable solid waste management (SWM) system in Khartoum state.
- **Project Purpose**: the SWM becomes more efficient and effective.
- **Budget**: 15,000,000 USD
- **Period**: 2014 - 2017 (3 years)
Project Activities 2014 - 2017

- Sign agreement for technical cooperation
- Implement pilot projects in residential area
- Training (workers, communities, supervisors)
- Awareness (Bus Tours, lectures, work shops, community meetings)
- Collection trucks and landfill equipment procured by Grant Aid in 2015
- Training regarding Grant Aid equipment's for Drivers, Mechanics and Collection crews
- Constructed central work shop (two floors)
نظام الجمع من منزل لمنزل

1. كثرة النقاط يودى ال صعوبة جمع من كل النقاط
2. السيارة المتحركة يودي تساقط نفايات أثناء الجمع
3. عامل النفايات يبذل مجهود أكثر

لا ترجع السلة إلى النقطة الجمع

نفايات منسية

نفايات مبعثرة

نفايات ساقطة من السيارة
نظام الجمع في المكان المحدد والزمان المحدد

يتم الجمع بشكل آمن.
يمكن جمع كل النفايات.
يصبح المنطقة نظيفةً و لا توجد نفايات مبعثرة.
Central Workshop in Soba
Japanese Embassy with Project Team
1. Background

1.2 Current Situation of South Sudan SWM Project
Waste Management By-law of Juba City Council

- Department of Environment is responsible for waste collection from markets and main roads.
- Operation Permits for garbage collection, Licenses for private sewage tankers.
- Donations from well wishers
- General campaign involving all stakeholders
- Defaulters and offenders

The By – Law determinates the above points to happen
Practical Collection of waste from main Roads on daily basis
1. Background

1.3 Cooperation among Sudan/South Sudan/JICA

**Project Purposes (FEB2017 – JULY2018)**

1. Collect basic information of solid waste management system (waste generation, collection and transportation, intermediate treatment, recycling and landfill), which will be a foundation of the new master plan of SWM in Juba.

2. Review lessons learnt from SWM system at the city level in Sudan, and identify priority issues and effective supports for the future to improve SWM in Juba.
### Summary of Study tour and meeting

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<th>Activity</th>
<th>preparation</th>
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<td>1 Kick-off meeting</td>
<td>• To collect the data &amp; analysis</td>
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<td>2 1&lt;sup&gt;st&lt;/sup&gt; study tour</td>
<td>• To analyze field data collection</td>
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<td>3 2&lt;sup&gt;nd&lt;/sup&gt; study tour</td>
<td>• To make the annual report</td>
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<td>• To plan pilot project outline</td>
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<td>4 Final workshop</td>
<td>• To make action plan of pilot project</td>
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<td>• To summarize data collection activity</td>
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<td>5 (Extension) Pilot project</td>
<td>• To make realistic pilot project plan</td>
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<td>6 (Extension) Pilot project</td>
<td>• To analyze data from pilot project</td>
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<td>implementation</td>
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2. Study Tour in Sudan
2.1 Outline of Study Tour

1. Courtesy Call
   A) Ministry of Environment, Natural Resources and Physical Development (MENRPD)
   B) Minister / Higher Council, Khartoum State
   C) Khartoum Cleaning Corporation (KCC)

2. Site Visit
   A) AU Office (Karary & Khartoum): Fixed-Time Fixed-Point Collection
   B) Transfer Station (Omdurman/ Khartoum/ Umbadah)
   C) Landfill Site (Omdurman/ Bhahari)
   D) Central Workshop (Soba)
FIX-TIME FIX-PLACE COLLECTION
CLOSING CEREMONY

MENRDP of Sudan

Representative of Govt. of South Sudan
2.2 Experiences gained during the Study Tour

- How to formulate action plan and Master Plan (M/P) through data collection.
- The collection system in Khartoum State (the waste from the residential areas, markets, streets etc. to the transfer station and finally to the landfill site) and the importance of weighing machine (weigh bridge) and the use of incinerators for medical waste.
- Establishment of Workshop including training of maintenance of collection vehicles.
- Establishment of recycling facility is important for Juba but also the feasibility and sustainability should be taken into consideration.
3. Lessons Learnt & Challenges

- JICA pilot project has succeeded in Khartoum State through cooperation, commitment and hard work.
- Before the pilot project the department of Environment and Sanitation did not know the amount of waste which had been collected but now we came to know that the collection ratio is only 4% and the rest are dumped illegally.
- Involvement and participation of the leadership in decision making regarding the pilot Project.
- Hard work, hospitality, commitment and team work by the localities and KCC.
- The Japanese history of Solid Waste management and the current situation.
4. Way Forward

- Exchange experience and knowledge is important, such as survey instruction, mechanic training, collection system improvement. E.g. Mr. Gosai was dispatched to support to conduct waste amount generation survey in Juba on September 2017.

- Governmental cooperation between Juba and Khartoum continue.

- Expansion of SWM project from Khartoum to other state, and pilot project in Juba.

- Temporary dumping site and Official landfill should be renovated and new dumping site is required to be open for expanded area.
Thank you for your attention