





Solid Waste Management TDD Tokyo, Kitakyushu - Japan September 24-28, 2018





# **Yemen Key Takeaways**

- 1. Step by step approach for managing solid waste
- 2. First focus on collection
- 3. Disposal to landfill site
- 4. Recycling is important but comes after waste collection chain is re-established.
- 5. Waste to energy not feasible at the moment









# Yemen Accomplishments Needed

- 1. Collection and disposal of "Accumulated Waste"
- 2. Cleaning of drains, water channels
- 3. Sustainability of Solid Waste Services Ensure continuation of basic service
- 4. Fix damages to transfer stations
- Basic fixes to landfill sites to bring them to minimum environment standard









### • Short-term:

- Restore primary collection
- Manage accumulated municipal waste
- Disposal of construction waste from war related destruction

#### Medium-term:

- Rehabilitate landfill site / transfer stations
- Update national Solid Waste Management strategy

## • Long-term:

- Establish new landfill sites (especially in Sana, Marib)
- Explore options for incineration / composting







# **Yemen Barriers & Challenges to Implementation**



- 1. Ongoing war
- 2. Financial challenges lack of resources
- 3. Institutional challenge, lack of coordination between local and central government
- 4. Damages to infrastructure / equipment







### • Technical Assistance Work Planned:

Landfill rehabilitation technical design

## • Investment Work Ongoing:

 Private sector driven out put based contracts for collection (transfer of accumulated waste to landfill, paid per m3)







## **Yemen Support Needed**



### World Bank:

- Financing for maintaining solid waste management services
- Investment in new landfill sites
- Technical assistance for involvement of youth and civil society organizations

## TDLC Program (Japan)

- Technical assistance on options to manage construction and war waste
- Study on how to organize already ongoing informal collection and reuse of recyclable materials



