

Opportunities in the countries under European Neighbourhood, DCI and EDF instruments

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Summary



- Definitions
- Issues and Challenges
- EU funded programmes
- Opportunities

Waste : definition and specific context

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Type	Composition and treatment option	Developing City specificities
<ul style="list-style-type: none">Liquid WasteSolid Waste	<ul style="list-style-type: none">Municipal sanitationMunicipal and non hazardous industrial waste<ul style="list-style-type: none">Type : Plastic, organic product, glass, papers, construction debris...Solutions :<ol style="list-style-type: none">1) Minimisation2) Sort / Composting / Recycling3) Incineration and WTE4) Landfill	<ul style="list-style-type: none">Low level of linkingOn going improvementLess quantity : 30-100 kg/year/pers. vs 400 – 800 kg/year in EU / USAHigher organic %less paper, plastic (increasing)Few Glass and metals (very frequently formal and informal recycling)Lower LCVFew collection and almost no efficient treatment



Waste : definition and specific context

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Type	Composition and treatment option	Developing City specificities
<ul style="list-style-type: none">Hazardous waste	<ul style="list-style-type: none">Industrial Hazardous waste<ul style="list-style-type: none">Regeneration / IncinerationMedical and infectious waste<ul style="list-style-type: none">IncinerationEngine Oil<ul style="list-style-type: none">Regeneration / Incineration (WTE)Pesticide / Fertilisers/ soiled packs	<ul style="list-style-type: none">Low production and almost never specific solution availableMedical and infectious waste : Incineration installed in some hospitals and need to be further developedEngine Oil : Already addressed by informal market. Mainly Direct recycling (re-use as indust. oil or fuel Need to be improved).No solution available. Need specific operation



Waste : Issues and Challenge in dev countries

- Solid Waste + Urban Context = 3 main issues
 - Health impact
 - General Public and population close of dumping sites
 - » **Direct: Epidemic** (open landfill), Respiratory and chronic disease (incineration)
 - » **Indirect: Flooding** after dumping in drains, Polluted Water consumption
 - Waste workers (formal and informal)
 - » Infections (Epidemic, Chronic diseases, Dermal, Ophthalmologic,...)
 - » Accidents (intoxication, trauma, burns, syringes injures or reuse ...)
 - Environmental impact
 - » **Water** (short term and long term pollution for human consumption and biodiversity impact)
 - » Air : Open burnings of waste are frequent and very polluting operations
 - » Green house effect : high CH₄ production with organic components
 - Economic impact :
 - » Commercial activities may be slow or stopped (e.g. flooding during rainy season impact large area of cities)
 - » **Industrial development need waste treatment solution**

Waste : Issues and Challenge in dvp countries

- **Rapid and large Urbanisation**
 - More than 50% is living in urban area
- Even with lower production Solid waste challenges should not be neglected
 - 1 Mio inhabitant's city : at least 50 000 Tons /year or 300 m3/day !
 - Solid and liquid sanitations are linked and have both impact on living conditions (health and poverty)
- Formal and Informal Solid Waste management offer economic opportunities
 - Collecting
 - Waste pickers / small recycling business
 - Local or foreign industries



Waste Management : Examples of EU funded and funding projects

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Vertical approach

- Implemented programmes:
 - Facilities : Thailand (Compost Unit) Dominique, Fiji, Morocco (Landfill construction)
 - Policy improvement : Bosnia (Waste recycling awareness and promotion)
 - Equipment supplies : Palestine (Waste collection and treatment, equipment supplies)
- On going and Foreseen programmes:
 - Seychelles : **a Sector approach**
 - **Investment** funded by EU/FR and National Gov
 - **Sector regulation** by Nat Gov with EU support
 - **Operation** (collection and landfill running) by private partner
 - Djibouti, Cap-Vert, RD Congo : Liquid and solid sanitations approach

Crosscutting approach

- General Budget Support
 - Decentralisation
 - Slum upgrading
- } **GBS and support to local governance are increasing**

Waste Management : Opportunities

Type of contracts between private companies and Contracting Authorities :

- Contracting (services or works contract)
 - Private Co is directly paid by public contracting Authority to provide a new facility or services
 - frequently company payment is not tied to the cost recovery system of the Auth.
- Franchise* (for services)
 - Monopoly given to Private Co. to provide service and collect directly fees and other benefits from recycling / composting, energy production.
- Concession*
 - Long term investment and processing solid waste
 - LA/NA in charge of regulation and flow control
 - Subscribers have to pay directly or through public taxes retransferred to the company according to the contract fee rules
 - Take or pay contract
- Private subscription
 - Gov licenses private firms to compete.
 - Each firm collects its own revenues from subscribers
- Public / Private Joint venture

* Nota : In French language Concession is similar to English term Franchise

Waste Management : Opportunities

- Studies
 - Entire waste chain needs to be studied and redesigned
 - A balance between
 - **EU environmental and management standards** (Efficiency, health and environmental improvement)
 - **Local context**
 - informal efficient recycling
 - Cost recovery instruments needs to be customized
 - “Nimby” syndrome is also active in developing countries
 - **Work and Services contracts through International Call for tender**
 - Construction of Facilities (landfills, sorting Center/ WTE unit...)
 - Specific process supply (Leachate and biogas treatment, compost unit,...)
 - Technical assistance to local authorities during implementation of the project
- sustainability of high tech solutions!

Waste Management : Opportunities

- Operation :
 - All the chain could be contracted (collection, minimisation/ recycling and treatment) with 2 key objectives:
 - Improve quality and efficiency of service with high environmental standards
 - Insure a regular service out of financial instability of local actors.
 - Legislation and regulation have to be clearly specified and agreed by both Authorities and private partners
- Management, technical assistance and monitoring
 - Management advise and capacity building to national and local authority and frequently requested and are on the critical path to success of the program