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4th
regional Forum
MOVING UPSTREAM :
Waste and Resource Management with Social
and Economic Benefits
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Informal Sector Involvement in Solid Waste
Management in Palestine

Palestine Solid Waste Statistics & Facts

Population	3.77m (2.35m in the WB, and 1.416m in the GS)
Municipal Solid Waste (MSW) generated	1.423m tons/year (estimated 2010)
Material composition of MSW	Organic 55-70% Paper/Paperboard 12-17% Plastic 8-12% Glass 2-5% Metal 2-5%
Composition of MSW by generator	Domestic 56% Industrial 12% Commercial 18% Other 14%
Per Capita MSW Generation	Urban 0.85 – 1.2Kg/c/d Rural 0.5-0.7Kg/c/d
Growth in MSW Generation	Estimated at 4 percent/year
Management of Waste	Composted 0% Recycled 1% Disposed in Landfills 30% Disposed in Dumps 69%

Legal and Institutional Background

- National Strategy for Solid Waste management in the Palestinian Territory 2010-2014
- Palestine Environmental law No.7, 1999
- Draft solid waste bylaw of 2011,
- Joint service councils bylaw of 2006, and,
- Local authorities law No. 1 of 1997,

Legal environment

- The Public Health Law no.20 for year 2004;
- The Investment Promotion Law no.1/1998;
- The Cabinet resolution no.53/2008, in relation to forming a national committee for following up the development of the national solid waste management strategy (NSWMS);
- Closure of random dump sites and rehabilitation criteria and conditions.
- The Medical Waste Management Bylaw,
- The Hazardous Wastes List.

Informal sector coverage in the legal system

- Regardless of the importance of the issue, the issue was not covered in any legal system, tool or publication
- There is still a chance to include in the solid waste bylaw
- No legal reference to waste ownership

Cost of Environmental Degradation in the Region

- When considering water, soil, air, costal zones and waste, the cost of Environmental degradation is:

Country	% of GDP
Tunisia	2.1%
Jordan	2.74
Lebanon	3.41
Syria	3.49
Algeria	3.6
morocco	3.7
Egypt	4.8

Informal sector forms

Street pickers	Recovery Bottles, cans
Landfill scavengers	Recovery Bottles, paper, plastic
Collection crews Recovery	Bottles, cardboard, cans, valuables
Travelling buyers	Door to door buying (announced collector) Paper, cardboard, plastic bottles, glass bottles, aluminum cans
Dealers,	neighborhood dealers or buyers Buying (retail)
Small-scale entrepreneurs	Buying , trading
Large-scale entrepreneurs	Buying and exporting/trading large-scale processing technology Metal, iron, steel, paper, cardboard, plastic bottles, glass bottles, tires, miscellaneous

Current status direct impacts

- Being informal means:
 - No legal status,
 - Workers rights care not covered
 - Working conditions are not supervised,
 - No health insurance,
 - Not included in the local tax system,
 - Child labor
 - No monitoring of environmental degradation practices; burning, importing, smuggling...,

Advantages:

- Environmental: The informal sector achieves high recovery rates (up to 80%) because the ability to recycle is vital for the livelihoods of the people involved
- Socially: They generally lack of sanitary services, health care and social benefits. Child labor is very frequent, and life expectancy is low, but there is some income
- Economically: most informal waste management operations achieve a net benefit while formal waste management operations have a net cost

General description of scavengers work

- It is either family based or individual based,
- Under 15 years old children are involved
- In sever health and environmental conditions,
- Facing dealers in unjust and un equal , unfair deals and relations,
- Absolute lack of official attention, and,
- At continuous threat of being subject to potential health hazards.

Social impacts

- Can obtain decent earnings when they are not exploited by middlemen,
- Are males and majority of them are below 25 years,
- Join the profession in order to take care of themselves and their immediate family,
- Are not satisfied with the job and indicated interest of changing to another profession if given the opportunity.

Public health impacts

- Could be potential pathways for the transmission of various communicable diseases to the general public as indicated by MOH.
- Exposed to occupational health and safety risks as a result of unsafe handling of **MIXED** waste materials and lack of protective clothing/equipment: , cuts and bruises, body aches and general weakness

Environmental impacts

- Air pollution, burning, Abu Dies site
- Storm water system closure, partial removal of recyclables, Ramallah, Jenin and Gaza
- Lettering due to incomplete removal of recyclables.
- Another new environment for rodents..

Scavengers Conditions

- Early arrivals gets the valuables,
- This leads to some staying overnight at sites, work and collect in darkness,
- Accidents so far included vehicles related, poisonous gases, sharps related injuries, explosive materials, vehicles related, and others.

Economic impacts

- Based on an annual generated waste of 1.423 tones, the economic value of potential recyclables is as follows:

material	Generated quantity	Potential recycled	\$ Value USD
organics	700,000	210,000 (30%)	2,100,000 NIS 600,000 USD
plastics	142,300	71,150 (50%)	12,197,500 (170 USD/tone
Paper & cardboard	213,450	106,725	1,067,250 (100USD/tone

Yatta





I dropped out of school so I will sustain myself,
and I make NIS 85.

Negative impacts

- Environmental
- Economic
- Health
- social

Impacts

- Child labor is against the law,
- Threatening recycling industry,
- **Partially** responsible for Jenin recycling plant failure, and Nablus plant difficulties.





Direct causes of informal sector presence

- High unemployment rates
- Limited national ministries abilities to meet social needs to needy families
- Weak legal system implementation
- Easy income for youth
- Limited awareness of impacts

solutions

- HJSC is to employ around 27 /100
- New developmental projects can minimize number of unemployed,
- Strengthening of child labor related legal system
- Clarity of waste ownership status,
- Support of private sector involvement is SWM

Who is involved

- Based on HJSC experience and attempts, the following were to be involved:
- JSC, LGU's
- Municipal Fund,
- MOF,
- Local Courts
- **Missing: MOSA, new facility donor, MOLG!!!**