Looking at SDGs Through a Resource Lens :Waste perspective.

Agamuthu P. and Fauziah S.H.

Institute of Biological Sciences

Center for Research in Waste Management

Faculty of Science, University of Malaya, 50603 Kuala
Lumpur, Malaysia
agamuthu@um.edu.my

Goal 12.3

By 2030, halve per capita global food waste at the retail and consumer levels



Goal 12.4

By 2020, achieve environmentally sound management of chemicals and all wastes throughout their life cycle, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

Goal 12.5

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

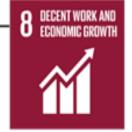
Goal 12.11

Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption



Goal 8.4

Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead



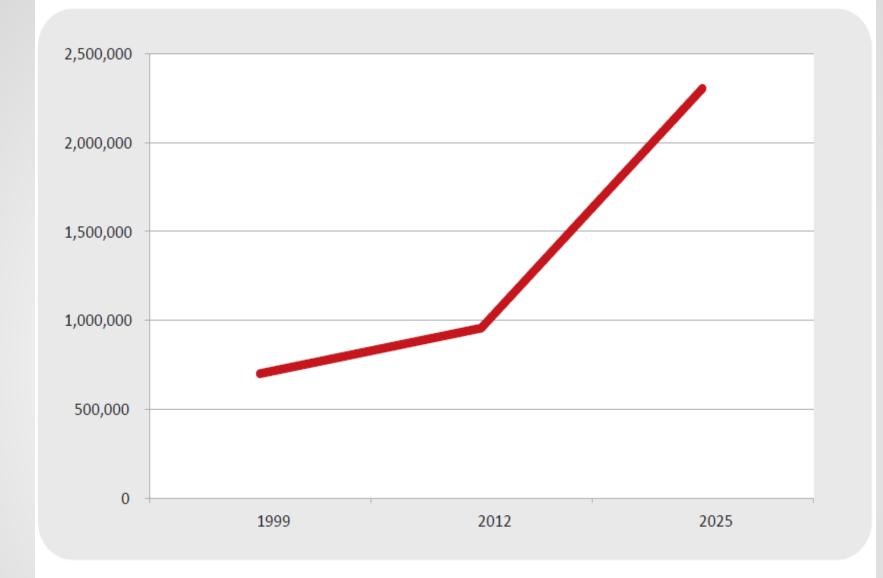
Goal 11.6

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

Waste related SDGs

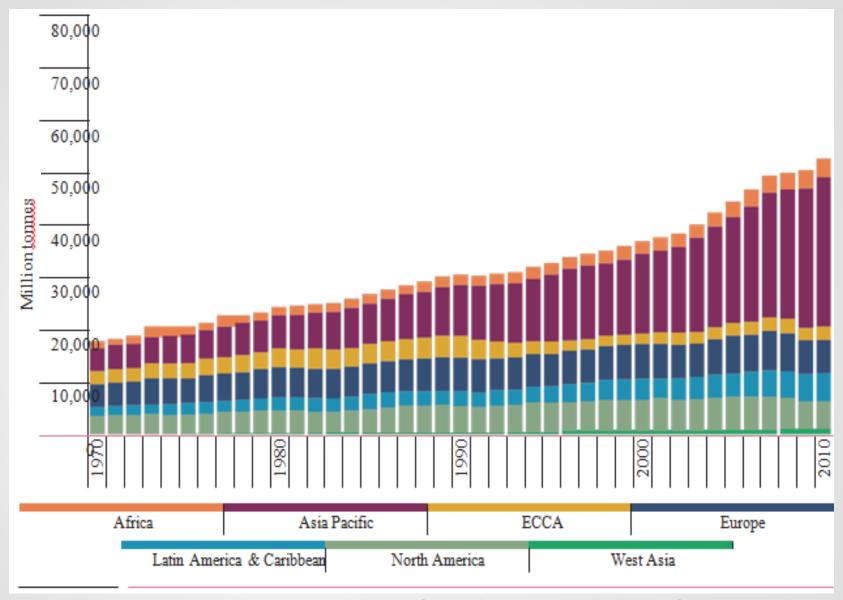
Disturbing Facts!

- Non utilization of energy efficient light bulbs worldwide wasted US\$120 billion annually.
- Food sector accounts for 30% of the world's total energy consumption while emitting 22% of total GHG.
- 2 billion people globally are overweight or obese.
- 1.3 billion tonnes of food produced (~\$1 trillion) are wasted each year due to poor transportation and harvesting practices, while ~1 billion people go undernourished and ~1 billion hungry.
- Food security is at risk due to land degradation, declining soil fertility, unsustainable water use, overfishing, and marine environment degradation.

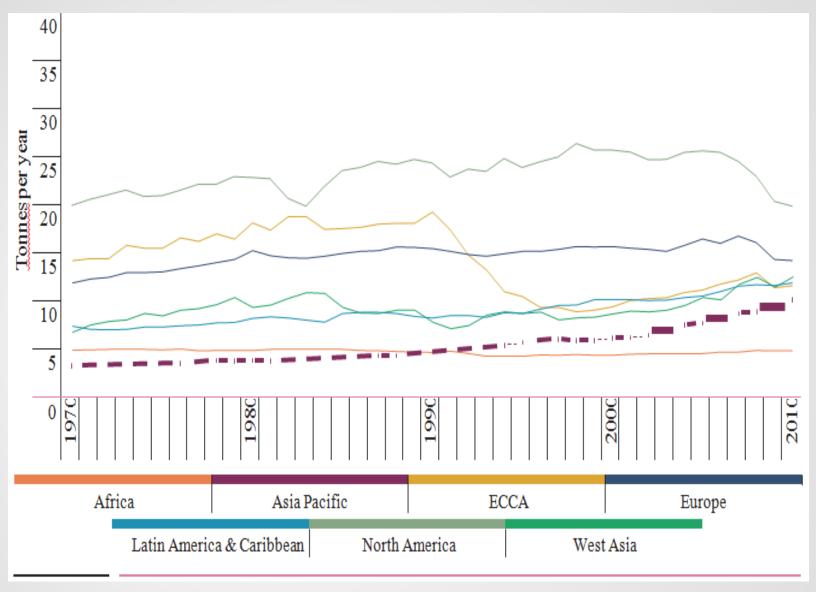


Source: ESCAP, based on World Bank data. See World Bank, What a Waste: A Global Review of Solid Waste Management, Urban Development Series Knowledge Papers (Washington, D.C., 2012).

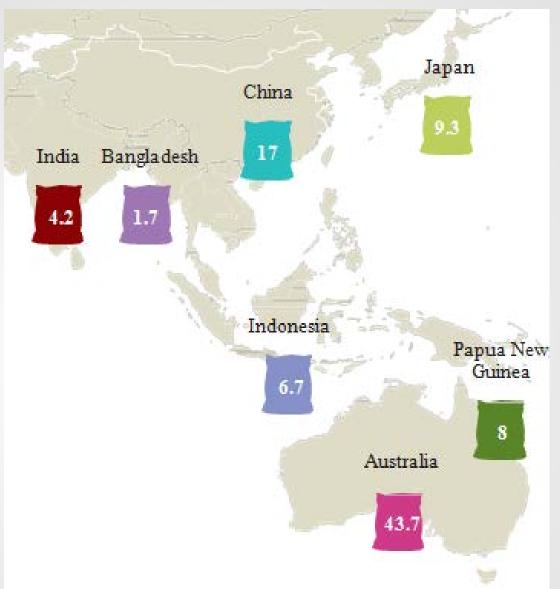
Municipal solid waste generation in Asia Pacific region



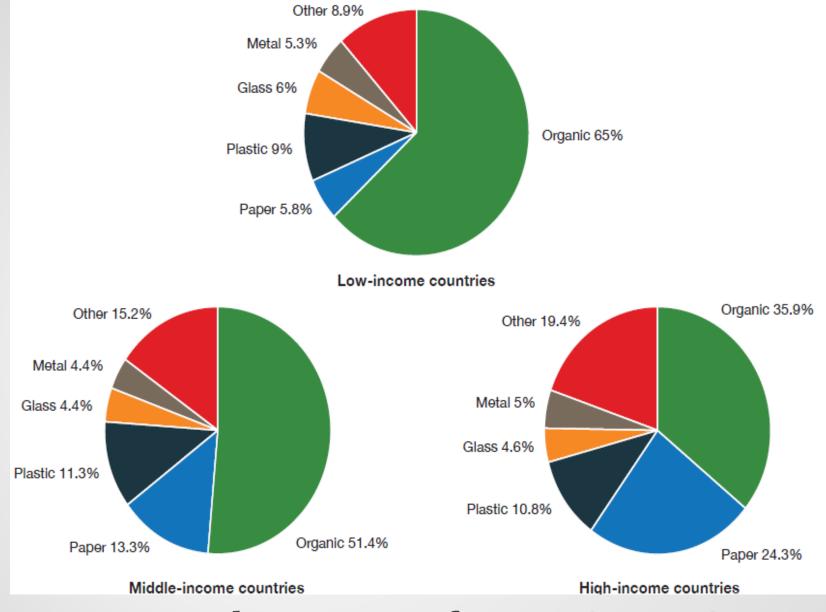
Resource Consumption for the Asia-Pacific Region Compared to Other Regions from 1970 to 2010



Per Capita Domestic Material Consumption in Asia-Pacific Compared to Other Regions, 1970-2010, in tonnes



Per Capita Material Use in Asia-Pacific, 2015, in metric tonnes



Potential resources from MSW in Asia
Pacific region

Biomass – resources consumed and its efficiency

	<u>China</u>		<u>India</u>		<u>Nepal</u>		<u>Pakistan</u>	
	Consumpt		Consumpt		Consumpt		Consumpt	
	ion		ion		ion		ion	
	(million	efficiency	(million	efficiency	(million	efficiency	(million	efficiency
	ton/yr)	(%)	ton/yr)	(%)	ton/yr)	(%)	ton/yr)	(%)
Fuelwood	65	9	119.5	10.8	0.1	10.5	25.8	9
Agri-								
residues	133	15	36.86	10.2	0.03	10.5	8.05	9
Animal								
dung	10	13	64.9	10.8	0.02	8.9	13.3	9

	The Phil	<u>ippines</u>	<u>Sri La</u>	anka	<u>Vietnam</u>		
	Consumpti		Consumpti		Consumpti		
	on (million	efficiency	on (million	efficiency	on (million	efficiency	
	ton/yr)	(%)	ton/yr)	(%)	ton/yr)	(%)	
Fuelwood	11.64	8	4.48	10.5	20.83	9	
Agri-							
residues	2.64	8	0.99	10.5	5.23	9	
Animal							
dung	NA	NA	NA	Na	NA	NA	

Factors affecting non-compliance of SDG

- Inefficient 3R program implementation
- Policy barriers
- Supply & demand perspectives
- Environmental perspective
- Financial & technical barriers
- Institutional barrier
- Unwillingness of the industry to change and to be proactive

Conclusions

- Waste sector plays crucial role in moving towards the SDG.
- Failure to incorporate waste management aspects will prolong the process to achieve targeted aims in SDGs.
- Various factors are affecting the ability of each country to comply to SGDs.
- Institutional drivers are necessary to promote compliance of SGDs in a country.

