### **European Environment Agency**

# **Towards a recycling society**

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### Overview

- 1. EU Waste Policy
- 2. Waste Indicators (generation and recycling)
- 3. EEA and ETC/SCP Activities on Waste



# 6th Environmental Action Programme of the EU

Decouple waste generation from economic growth and from environmental degradation





The long-term goal is for the EU to become a recycling society, that seeks to avoid waste and uses waste as a resource.

(Thematic Strategy on prevention and recycling of waste, 2005)



### Waste Framework Directive

• Sets a "hierarchy" of waste management options: prevention is the preferred option, followed by reuse, recycling and other forms of recovery - with safe disposal as the last option.

The Waste Hierarchy



#### Waste Framework Directive

- New **recycling targets** to be achieved by EU member states by 2020, including recycling rates of 50% for household and similar wastes (at least paper, plastic, meal and glass) and 70% for construction and demolition waste.
- Provisions on waste prevention: obligation for MS to develop national <u>'waste prevention programs</u>' and a commitment from the EC to report on prevention and set waste prevention objectives.



# **Other Targets**

	Year	Recovery targets	Recycling targets	Collection targets
Packaging waste	2008	60%	55%	
	2006	85% incl. Reuse	80% incl. reuse	100%
End-of-Life Vehicles	2015	95% incl. Reuse	85% incl. reuse	100%
Waste Electrical and Electronic Equipment	2006	70 – 80 % (differs acc. to WEEE categories)	50 – 80 % incl. reuse (differs acc. to WEEE categories)	Min. 4 kg per inhabitant per year
	2012			25%
Batteries	2016			45%
Batteries, lead acid and accumulators	2011		50 – 75% efficiency (different targets for different battery types)	
Tyres	2006	Zero landfill of tyres		
Landfill of biodegradable municipal waste	2006	Reduction to 75% of the amount generated in 1995		
	2009	Reduction to 50% of the amount generated in 1995		
	2016	Reduction to 35% of the amount generated in 1995		

### Facts and indicators: Where are we?

- **Total waste** generation in the EU 27: 3 billion tonnes (2006)
- Waste <u>generation</u> per capita: 6 tonnes
- Total **municipal waste** <u>generation</u> in the EU 27: 260 million tonnes (2008)
- Municipal waste generation per capita: 524 kg
- Total hazardous waste generation: 88 million tonnes (2006)
- In 2008, 40% of the total municipal waste was sent to <u>landfills</u>. In 1995, it was 62%. At the same time, more waste has been <u>recycled and composted</u>: 16% in 1995 and 39% in 2008.
- In 2007, 59 % of all packaging waste in the EU-27 was recycled and 14 % energy-recovered



## Total waste <u>generation</u>, by source



- Mining and quarrying
  Manufacturing
- Construction and demolition activities
- Households
- Other sources



# Municipal Waste Generation CSI-16 Kg/capita





# Municipal waste is increasing



→ Index Municipal waste generation EU-27 → Index GDP EU27 → Population EU27 index

#### Generation of Packaging Waste CSI-17





# Packaging waste is increasing



# Hazardous waste is increasing



# Construction and demolition waste is increasing, EU-15



Source: ETC/SCP, based on national data



# Construction and demolition waste is increasing, EU-12



Source: ETC/SCP, based on national data

# Management of municipal waste 1995-2008





# The Landfill Directive's diversion targets

- EU Landfill Directive targets: Reduce biodegradable municipal waste going to landfill
  - to 75 % by 2006
  - to 50 % by 2009
  - to 35 % by 2016

of the total amount generated in 1995





#### Over 3 300 landfills closed across Europe between 2004 -2006

Still a high number of sub-standard landfills in operation, mainly in the new Member States



## Biodegradable municipal waste landfilled in 2006



## Generation and Recycling of Packaging Waste CSI-17





#### Packaging waste management, EU-15



Source: EEA CSI-17

# WEEE



□ Put on the market □ Total collected □ Collected from private households □ Reuse and recycling

# Recycling of end-of-life vehicles



Transboundary shipments of waste are increasing: mostly for recovery/recycling



EFTA
Non-OECD (incl. BG and RO)

■ EU-12 excl. BG and RO ■ OECD (non-EFTA)

# Main conclusion

- Most flows (total and per capita) are increasing
  - Some are decoupling from GDP

#### HOWEVER

- Management is improving (lower impacts)
- Increasing recyling/recovery (quantity and rates)
  - Not yet enough in some case, great inter-country differences

#### CONCLUSION

• We are moving towards a 'recycling society', not yet towards a 'prevention society'



#### For discussion

- How can we reduce waste generation? (prevention)
- How much of the resources we use can be covered by recycled materials? (<u>substitution</u>)
- Environmental benefits of recycling is linked to the quality of recycling (materials and processes) (<u>innovation</u>)
- Illegal export for some wastes poses a threat to the environment and to the recycling markets (institutions)



#### Recent EEA-ETC/SCP Reports and Publications on Waste (2009)

- The European Recycling Map (ETC/SCP)
- Diverting waste from Landfill
- Waste without borders in the EU
- Transboundary Shipment of Waste Data Report (ETC/SCP)
- EU as recycling society. Present recycling levels of Municipal Waste and C&D Waste in the EU (ETC/SCP)
- <u>http://www.eea.europa.eu/publications</u>
- <u>http://scp.eionet.europa.eu/publications</u>



# Diverting waste from landfill



#### Contents:

- Analyses the effectiveness of national policies on diverting total municipal waste and biodegredable waste from landfill.
- Which instruments work well, which don't, and why?
- Is Europe on track to meet the targets? (Landfill directive)



### Waste without borders in the EU

104 Report No 1/2009

Waste without borders in the EU?

Transboundary shipments of waste



#### Contents:

- Regulations for waste shipments
- Shipments of notified waste
- Illegal shipments
- Conclusions better reporting needed



# Ongoing Projects (2010)

- Transboundary Shipment of Waste
- Recycling and Green economy in the EU
- Factsheets on waste policies Preparation of country factsheets
- Eionet workshop on waste



## Transboundary shipments of waste

- What are the **drivers** behind waste shipments?
- What are the **environmental impacts** resulting from waste shipments?
- Developing a methodology for estimating the environmental impacts and drivers of the transboundary waste shipments.
- Application of the methodology on selected waste streams.
- Giving an input to the ongoing debate about the transboundary shipment of waste



## Recycling and the Green Economy

- Defining the coherence between recycling and the green economy
- Documenting the current value and importance of selected recyclable waste streams for the economy
- Documenting how much of the input of selected resources used in the EU can be potentially be provided by recycling of the selected waste streams.
- Analyzing the recycling potential of different economic sectors and their significant economic, environmental and social impacts.



### Fact sheets on waste policies

- Published in 2010 <u>http://scp.eionet.europa.eu/facts/factsheets\_waste/200</u> 9\_edition
- General facts
- National waste legislation
- National waste management plan
- Waste prevention
- Construction and demolition waste
- Biodegradable municipal waste
- Bibliography
- Links to national websites



### Eionet workshop on waste

- 10-11 November 2010, Berlin.
- Focus on waste prevention.
- Production, consumption, wholesale, retail phases.
- Facilitating the exchange of best practices in waste prevention. (38 countries including Serbia)





#### **European Environment Agency**

### Thank you for your attention

#### www.eea.europa.eu ETC/SCP: http://scp.eionet.europa.eu/

