# Environmental Advantages of Recycling

Dr. R.G. Smits

Road and Hydraulic Engineering Division Ministry of Transport, Public Works and Water Management

## Introduction

- Subjects of recycling
- Necessity of recycling
- Policy
- implementation
- examples



## Why recycling

Short term
Scarcity of space



- Long term
  - no waste of potentially good building materials
  - ever growing stock of garbage
  - care for future future generations



#### **Dutch Policy for recycling**

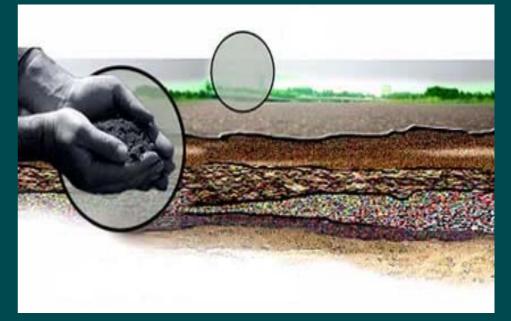
- Reducing the amount of new raw materials
- Conditions for recycling
- Reducing the degradation the quality





#### Instruments of recycling

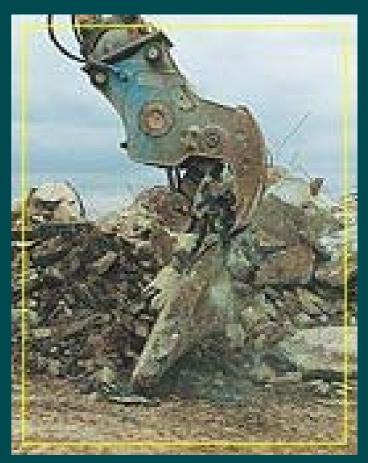
- government and business community
- technical development
- environmental regulations
- waste policy
- transfer of knowledge





#### **Examples of recycling**

- Raw materials of demolition waste
- MSWI bottom ash
- Dredged material
- Asphalt recycling (?)
- Developments and difficulties





# Aggregates from construction and demolition waste

- Recycled as sub base material
- Replacing gravel in concrete?
- Search for a more ideal situation
- Asbestos, a threat for recycling



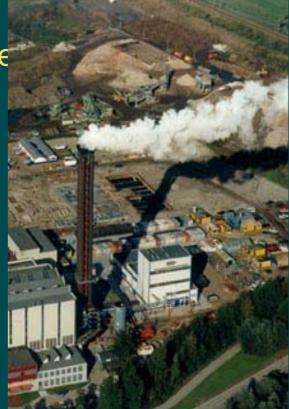




#### **MSWI** bottom ash

- The burning of household waste
- Successfully recycled as road sub base
- Now really threatened
- Damage of the isolation material?



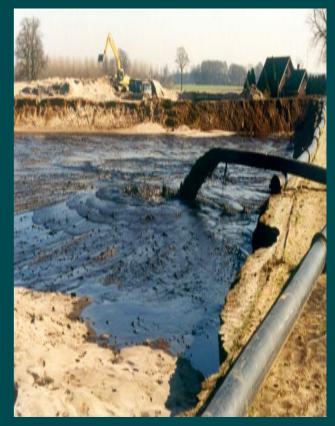




#### **Applications of dredged materials**

- Where to go with dredged materials
- Recycling as a solution
- Building roads with dredge
- Trial projects







#### The end of my speech

- Given you some insight in the research
- Recycling important for a durable society

