

Are Today's Stocks Our Resources of Tomorrow?



The "ABASG II - Güter" Project

The ABASG II project investigates the hypothesis of waste management goals being to be met more efficiently if waste management solutions consider the entire material flows within Austrian economics.

The project has been commissioned by the Ministry for Agriculture, Forests, Environment and Water Management.

Initial Situation

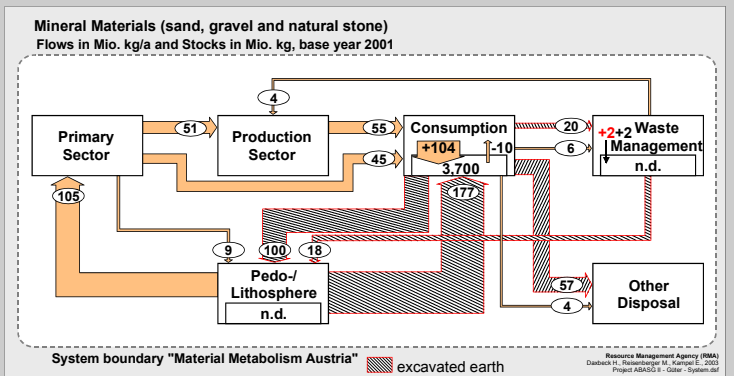
The waste management goals "Optimal Resource Utilisation" and "Protection of Humans and Environment" are economic goals as well. Thus, knowledge of the metabolism of the most relevant goods in the economics is a crucial prerequisite for the evaluation of the role of the waste management.

Results

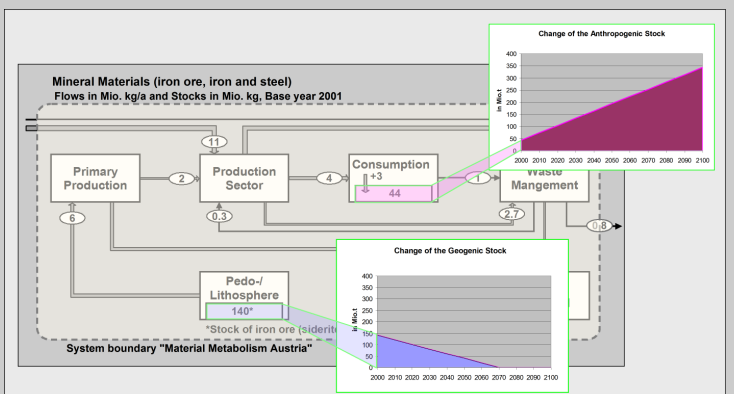
- Sand, gravel and natural stone (SGN) (105 Mio. t) stay for the largest material turnover. They are employed mainly as construction materials and present thus a significant part of the stock.
- Earth (177 Mio. t) exceeds significantly the flow of SGN, whereby only a small part (20 Mio. t) of it is registered within the waste management

Goal

The goal is the identification of the most relevant goods in terms of their mass appearance (except water and air) within the economics. For this, their mass flows and stocks within production, supply and consumption are determined. Further, a rough estimation is performed of the solid wastes originating within raw material extraction, production and consumption.



- The material turnover of Austria is characterised by an annual consumption of 144 Mio. t, a stock in the infrastructure of ca. 3,800 Mio. t and an annual growth of ca. 95 Mio. t, against waste flows of 50 Mio. t.
- Significant waste flows (mainly excavated earth, demolition waste) pass the waste management and are thus not enclosed (Other Disposal). Any control towards their according disposal is therefore not possible.



- Iron and steel stock amounts in the anthroposphere ca. 44 Mio. t, and approximately 140 Mio. t in the pedo/lithosphere. If consumption remains unchanged, within approximately 20 years the geogenic stock will correspond to the anthropogenic one (ca. 100 Mio. t). The anthropogenic stock gains therefore more and more importance as a potential resource.

Relevance for the Federal Waste Management Plan (BAWP)

The BAWP currently registers only waste flows and planned resulting measures. Measurement planning however presupposes knowledge of the wastes of "tomorrow". An all-over survey of material flows enables the recognition of action potentials, so to influence both the current and the future wastes. Balances of goods are a prerequisite of resource management.

