




# Consumption-based accounting – Implications for Policy

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*One Tonne Life*

# Swedish Consumption and the Global Environment





# Swedish Environmental Quality Objective System

1. Reduced Climate Impact\*  

2. Clean Air  

3. Natural Acidification Only  

4. A Non-Toxic Environment  

5. A Protective Ozone Layer  

6. A Safe Radiation Environment  

7. Zero Eutrophication  

8. Flourishing Lakes and Streams  

9. Good-Quality Groundwater  

10. A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos  

11. Thriving Wetlands  

12. Sustainable Forests  

13. A Varied Agricultural Landscape  

14. A Magnificent Mountain Landscape  

15. A Good Built Environment  

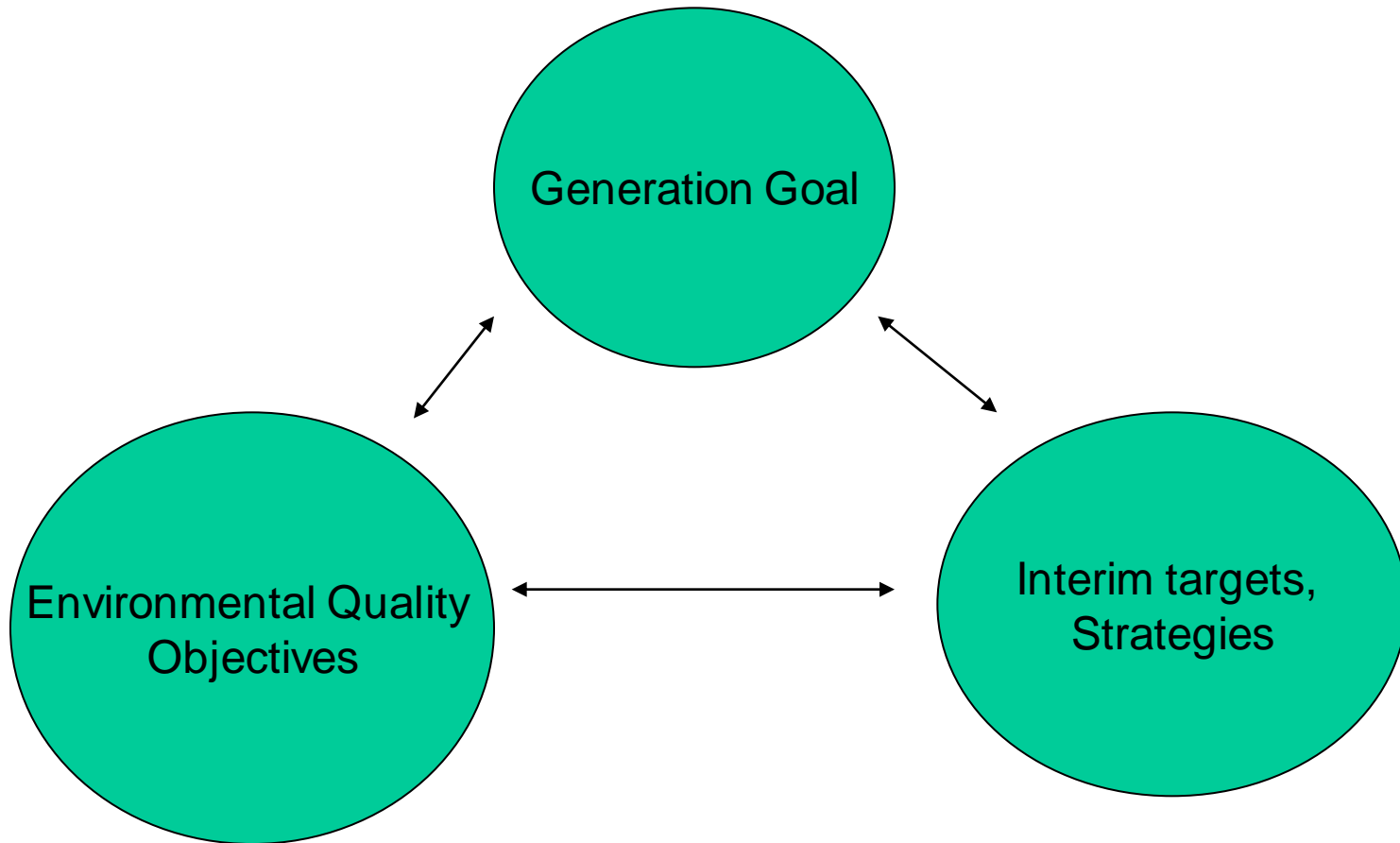
16. A Rich Diversity of Plant and Animal Life  

## New Bill 2010: Sweden's Environmental Objectives



For More Effective Environmental Action (2009/10:155)

# Swedish Environmental Quality Objectives





# **NEXT GENERATION 2020**

**The overall goal for the Swedish Environmental Quality Objective System is to hand over to the next generation a society in which the major environmental problems in Sweden has been solved **without increasing enviromental and health problems outside Sweden's borders.****

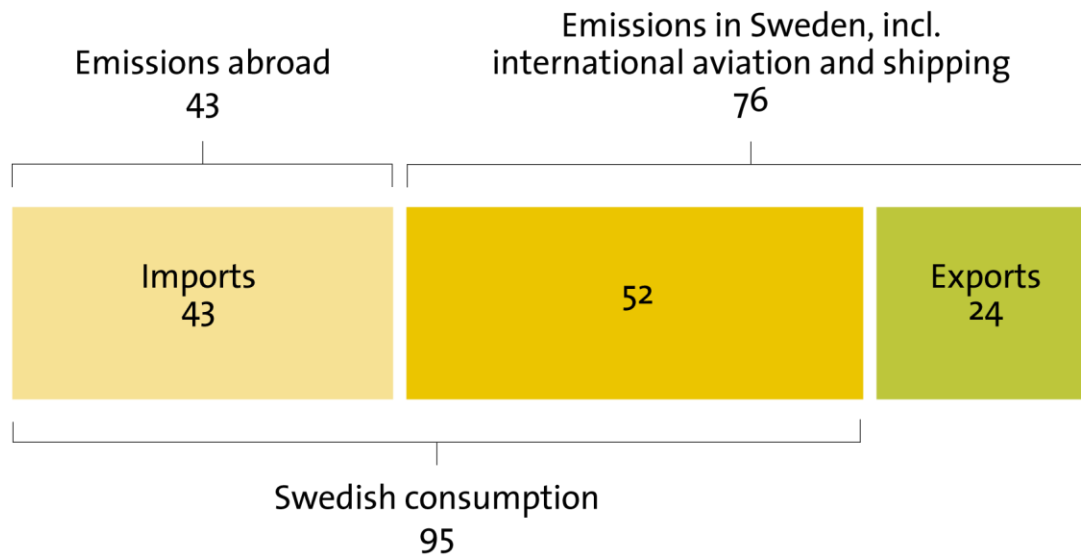


## Environmental pressures arising from consumption more clearly included

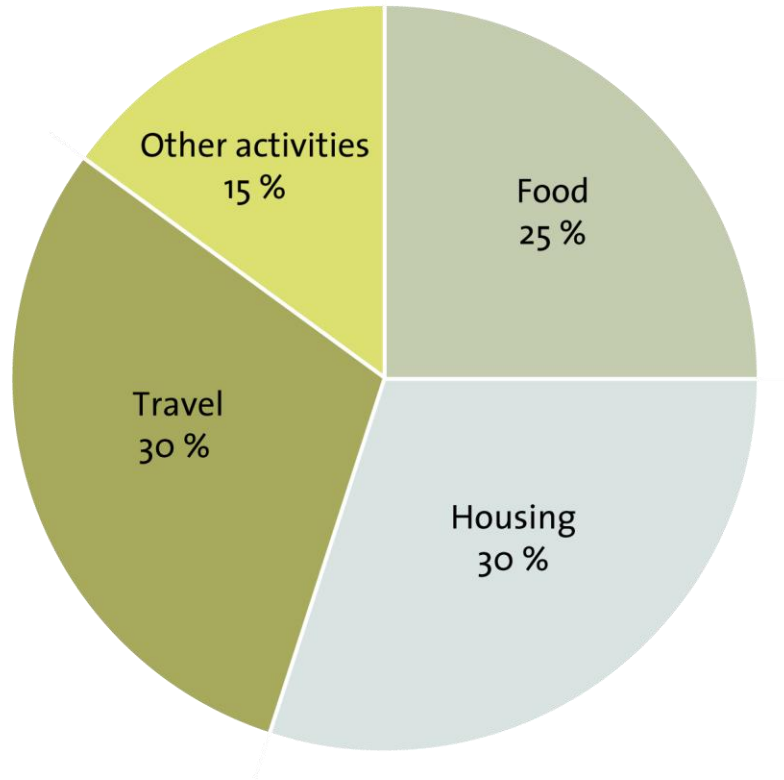
- Patterns of consumption of goods and services cause the least possible environmental and health impact



# FIGURE 3. Greenhouse gas emissions (million tonnes of carbon dioxide equivalent)



**FIGURE 5. Greenhouse gases from private consumption**



SOURCE: SWEDISH ENVIRONMENTAL PROTECTION AGENCY

# Global environmental impact from Swedish Consumption

## Swedish Environmental Objectives (Miljömålsrådet, 2010)

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## de Facto areas (Miljömålsrådet, 2010)

- Climate (greenhouse gas emissions)
- Air emissions (sulfur and nitrogen oxides)
- Chemicals
- Water use
- Land use

## Biodiversity

## Environmental impacts: (UNEP, 2010)

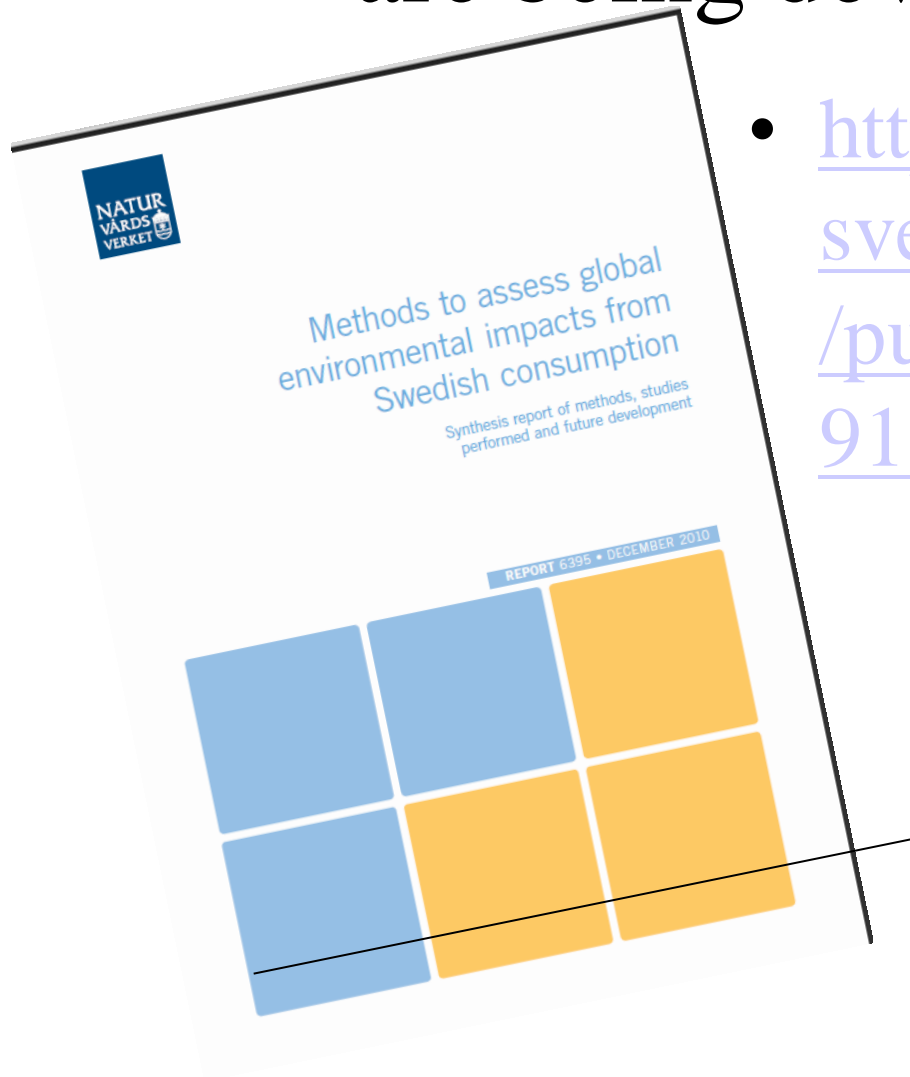
Impacts caused by emissions

- Climate change (caused by greenhouse gas emissions)
- Eutrophication (overfertilization caused by pollution with nitrogen and phosphorus)
- Human and ecotoxic effects caused by human and regional air pollution, indoor air pollution and other toxic emissions

Impacts related to resource use

- Depletion of abiotic resources (fossil energy carriers and metals)
- Depletion of biotic resources (most notably fish and wood)
- Habitat change and resource competition due to water and land use.

# How to follow up – new indicators are being developed



- <http://www.naturvardverket.se/Documents/publikationer/978-91-620-6395-5.pdf>

# Main purpose

- Compile methods used for assessment of environmental impacts in other countries caused by Swedish consumption
- Description of the methods, their strengths and weaknesses and evaluate where gaps in data or knowledge are foreseen

# Areas of assessment – what's possible ?

- Greenhouse gases
- Other emissions to air
- Emissions of chemicals
- Land use
- Water use
- Biodiversity

# Carbon dioxide and other air emissions new follow-up measures

## Environmentally extended input-output analyses

- Based on input-output data and emissions by industry + direct emissions + emissions in other countries
- The emissions in other countries are estimated using the assumption “as if produced in Sweden” or with a weighted method with country intensities



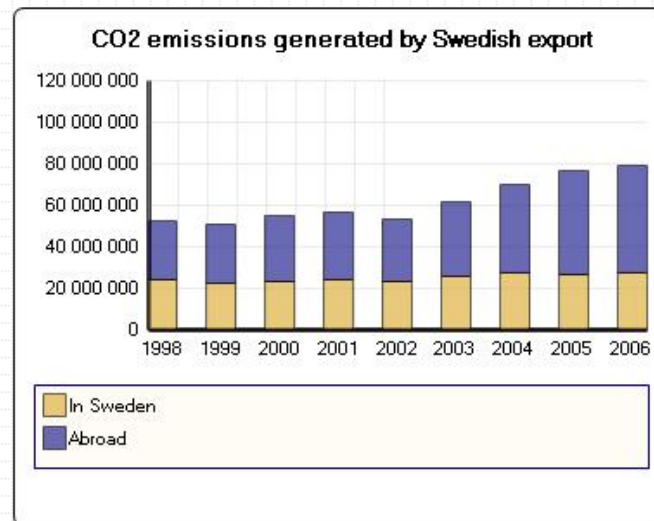
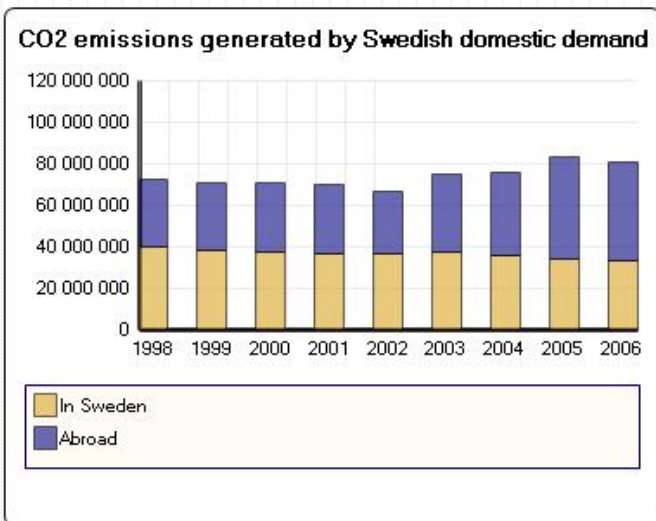
## Total CO2 emissions generated by final demand in Sweden (tons)

Weighted method

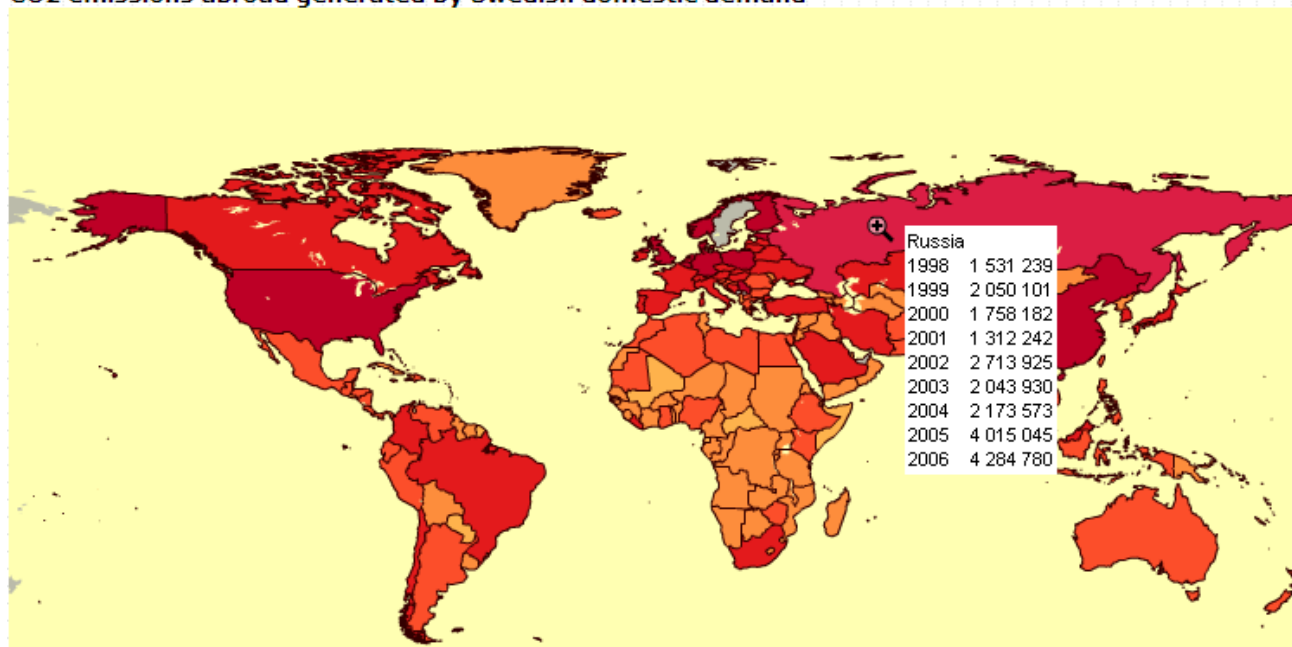
As in Sweden



[Help](#)



## CO2 emissions abroad generated by Swedish domestic demand



# Political Reality

- Sweden in a global development – international perspective needed due to increasing trade
- Flexible approach in reaching climate objective
- Territorial perspective and general economic steering instruments dominates political agenda
- Sweden 2050 – roadmap towards zero climate emissions – consumption patterns included
- Still in the awakening state