New methods and indicators supporting policies for sustainable consumption in Sweden







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Sweden's generational goal is the starting point

"The overall goal of Swedish environmental policy is to hand over to the next generation a society in which the major environmental problems in Sweden have been solved, <u>without increasing environmental and health problems</u> <u>outside Sweden's borders</u>."



PRINCE aims

What are the environmental pressures exerted by Swedish consumption abroad?

How can they be accurately monitored, and compared to similar pressures exerted inside Sweden, in a consistent and policy-relevant manner?



Coupled model for pressures from consumption

Global multi-regional input-output database with environmental pressures (sector and country)
(EXIOBASE currently)

Multiregional IO calculation

Sweden's imports in krona, per product, exporting country (Stats Sweden Trade data)

Import shares by country – per product Multipliers for Swedish imports – environmental pressure per imported krona, per product e.g. kg CO2-e/SEK

Sector-specific environmental pressures in Sweden (Stats Sweden environmental accounts)

Input-output tables for Sweden (Domestic and import - Statistics Sweden national accounts)

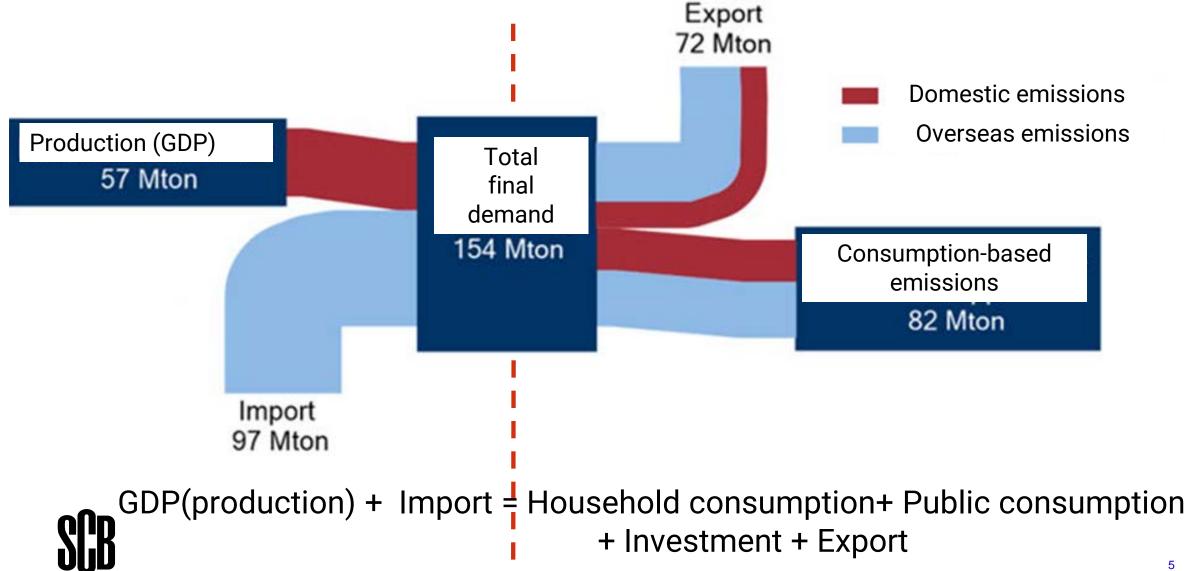
Single region IO calcs import Domestic Single region IO calcs dom

OUTPUT: Environmental pressures for Sweden with consumption perspective (Import and domestic):

- 49 producing countries/RoW regions
- Approx. 50 product groups

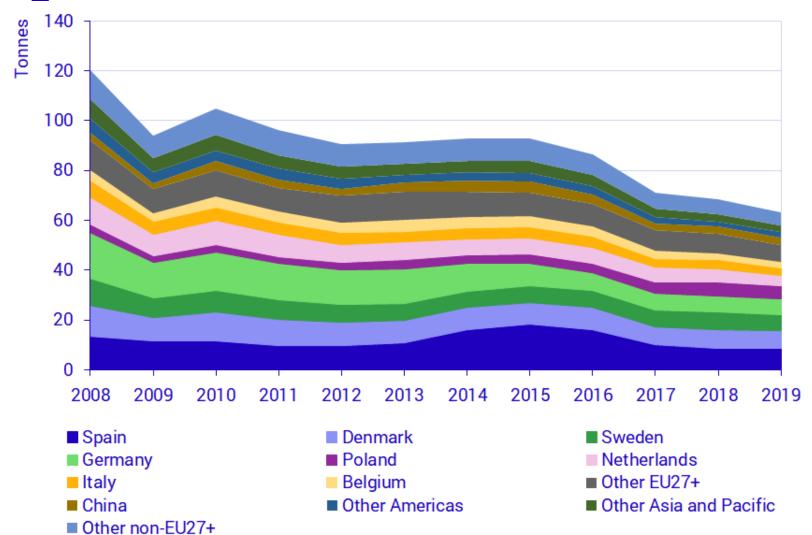


Greenhouse gas emissions, for example



Källor: Swedish EPA (picture), Stats Sweden environmental accounts (data)

Sweden's consumption-based Ag. Antibiotic use is decreasing





Swedish consumption impacts biodiversity overseas

Swedens consumption-based environmental pressures

	Domestic	Overseas	TOTAL
Mass (ton)	20.9 mn (52 %)	19.5 mn (48 %)	40.4 mn
Harvested area (ha)	0.6 mn (21 %)	2.3 mn (79 %)	2.9 mn
Tropical deforestation (ha)	_	5 400 (100 %)	5 400
Expected species loss (species)	0.4 (4 %)	9.7 (96 %)	10.1
Species-richness weighted area (species-ha)	161 mn (17 %)	800 mn (83 %)	961 mn

Data: Stockholm Environment Institute, York



Future outlook

- Greenhouse gas emissions:
 - Improve detail for specific products
 - Apply the FIGARO database in our calculation method
 - Develop measures of climate impacts of Sweden's exports
 - Contribute to work on international harmonization of data and methods
- New policy applications



Thanks!

Questions?

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EXTRA SLIDES



PRINCE – A project in two phases

- Phase 1: 2015 2018 (approx. 16 MSEK)
- Phase 2: 2021 2022 (approx. 1.5 MSEK)
- Financing from:
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 - Swedish Agency for Marine and Water Management
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 - Stockholm Environment Institute
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Svensk konsumtionen bidrar till utsläpp från förändrad markanvändning utomlands...

