



# Environmental related taxes and subsidies related to climate policy

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# Climate Economic transfers

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CREEA: Compiling and refining environmental and economic accounts. EU FP7 project.

- Environmental taxes
- Environmental motivated subsidies
- Potentially environmentally damaging subsidies
- Emission rights
- Environmental goods and services

# The system of environmental and economic accounts (SEEA)



Statistiska centralbyrån Statistics Sweden

NATIONAL- RÄKENSKAPER		Varor och tjänster	Produktionsaktiviteter (branscher)	Privat konsumtion	Kapitalbildning	Handlet	Totalt								
Varor och tjänster	1. Jordbruk	836	871	709			51978								
	2. Skogsbruk	95	547	374			24203								
	3. Fiske	47	575	448			2337								
	4. Gruvar, min	43	328	3262			5152								
	5. Livsmedel, m	10	319	41598			352565								
	6. Massa, pap	58	278	289			136599								
	7. Textilier						20986								
	8. Offentliga	147					406271								
	9. Produktionsaktiviteter (branscher)						23204								
	1. Jordbruk	60	271				19178								
	2. Skogsbruk	21	9	98			960								
	3. Fiske	45	319				9191								
	4. Gruvar, min	23	18				176779								
	5. Livsmedel, text	13	2188				116847								
	6. Massa, papper						6505								
	7. Offentliga	353	6646				6505								
	Produktionsfaktorer						35555								
	1. Ejke varusäker skatter/subv	15	15	15	70	2	5	349							
2. Egentliga löner	323	152	152	23	312	2947	89	1748							
3. Kollektiva avgifter	147	152	147	152	64	656	9567								
4. Deltäverskott netto	25	874	26	874	241	3776	9375	300	-119						
Privat kons.							736370			574	736370				
Bilförsäkring											574	736370			
Övrigt	3010	49	127	815								177007			
Kapitalbildning							6403	1371	163	1167	8742				
Utländsk												276	6875		
Utländsk	8670	1453	395	#####									421494		
Totalt	#####	#####	#####	#####	#####	#####	860	9151	#####	#####	#####	736370	239715	-13742	472322

National Accounts

MILJÖSTATISTIK		Varor och tjänster	Produktionsaktiviteter (branscher)	Privat konsumtion	Kapitalbildning	Handlet	Totalt
1. Jordbruk	836	871	709				51978
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Privat kons.							736370
Bilförsäkring							574
Övrigt	3010	49	127	815			177007
Kapitalbildning							6403
Utländsk							
Utländsk	8670	1453	395	#####			
Totalt	#####	#####	#####	#####	#####	#####	860

Environm. statistics

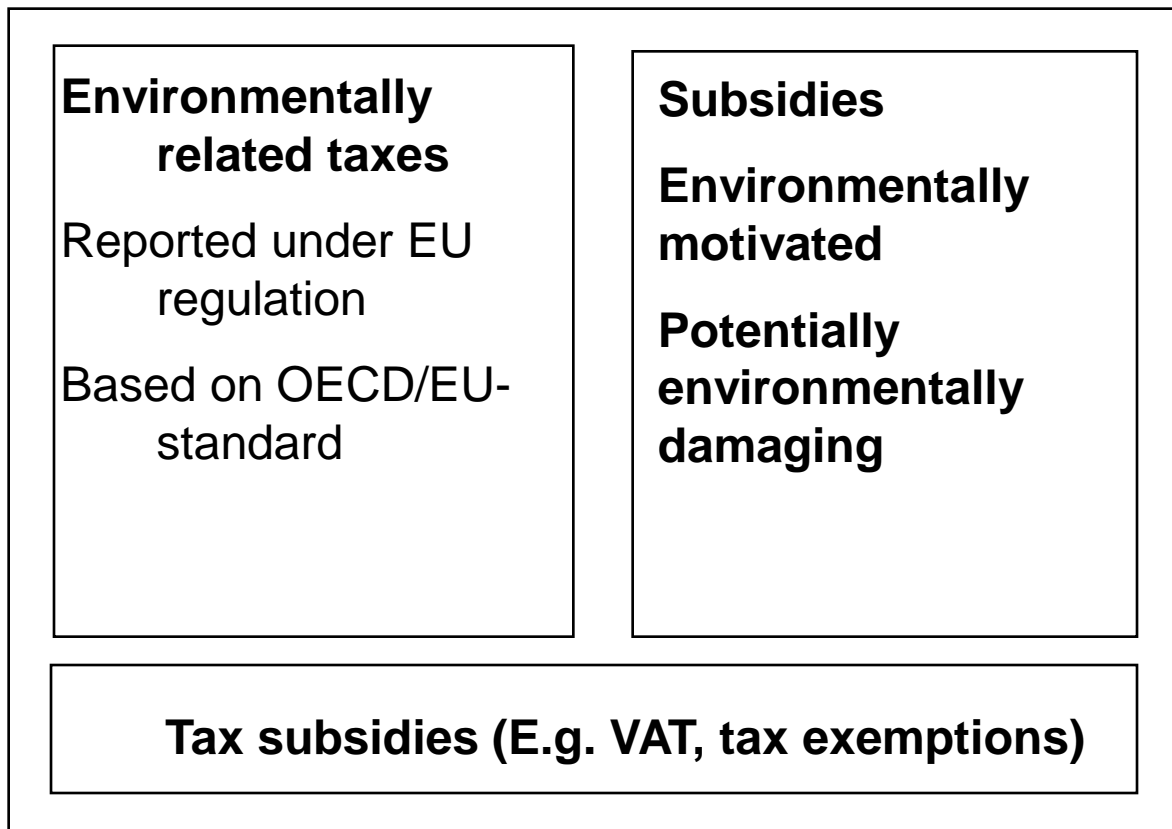
MILJÖ- RÄKENSKAPER		Varor och tjänster	Produktionsaktiviteter (branscher)	Privat konsumtion	Kapitalbildning	Handlet	Totalt	CO2	SO2	Nox	VOC	PM10			
Varor och tjänster	1. Jordbruk	836	871	709			51978								
	2. Skogsbruk	95	547	374			24203								
	3. Fiske	47	575	448			2337								
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Utländsk															
Utländsk	8670	1453	395	#####											
Totalt	#####	#####	#####	#####	#####	#####	860	9151	#####	#####	#####	736370	239715	-13742	472322
CO2								311							
SO2								271							
Nox								667							
VOC								510							
PM10								59							

Environmental Accounts

# Regular publishing

- Energy use per industry and final demand
- Emissions to air
- Environmental taxes and subsidies
- Environmental protection expenditure
- Chemical product use
- Material flow analysis
- Environmental goods and services

# Taxes and subsidies related to environment

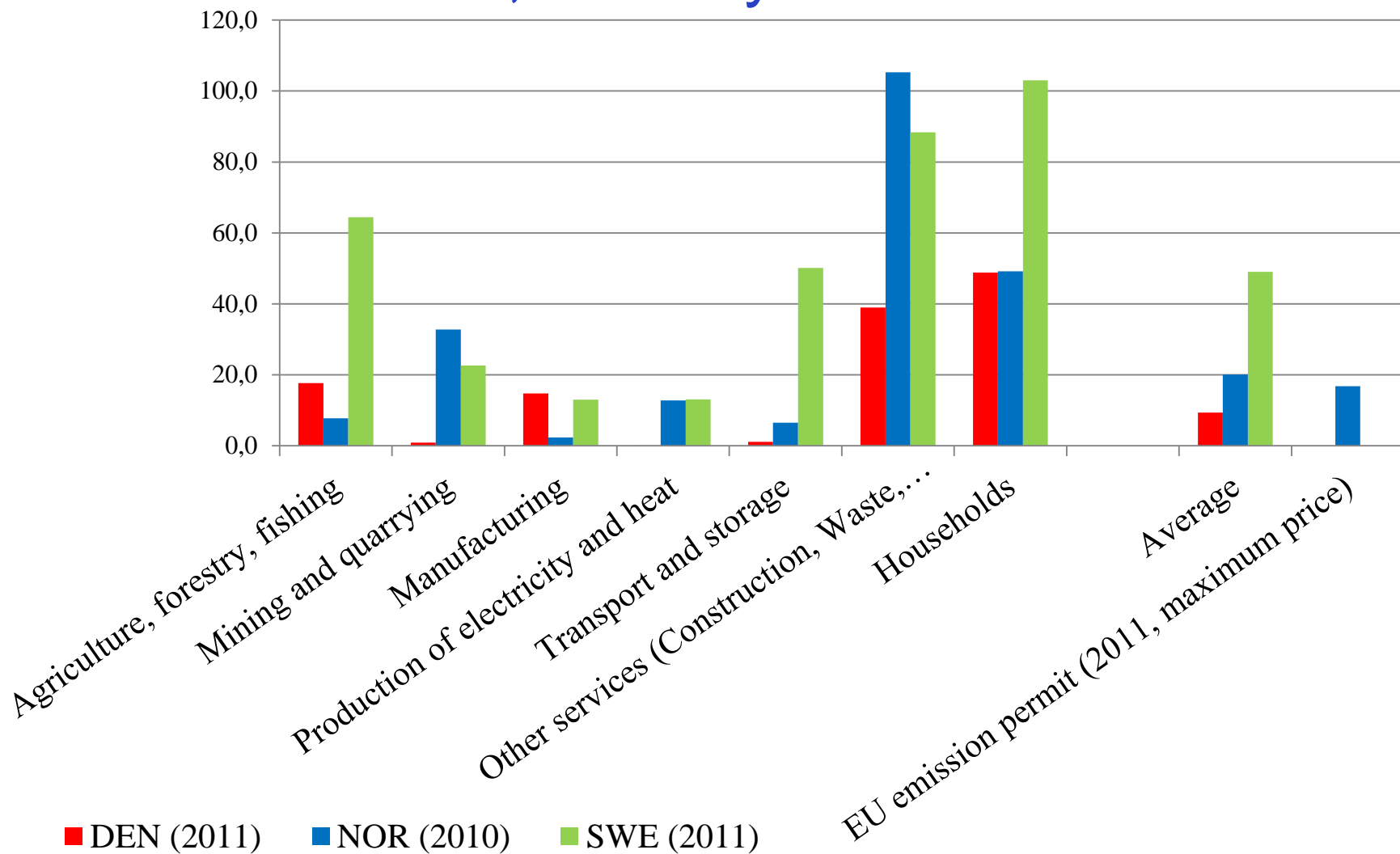


# Environmental tax bases

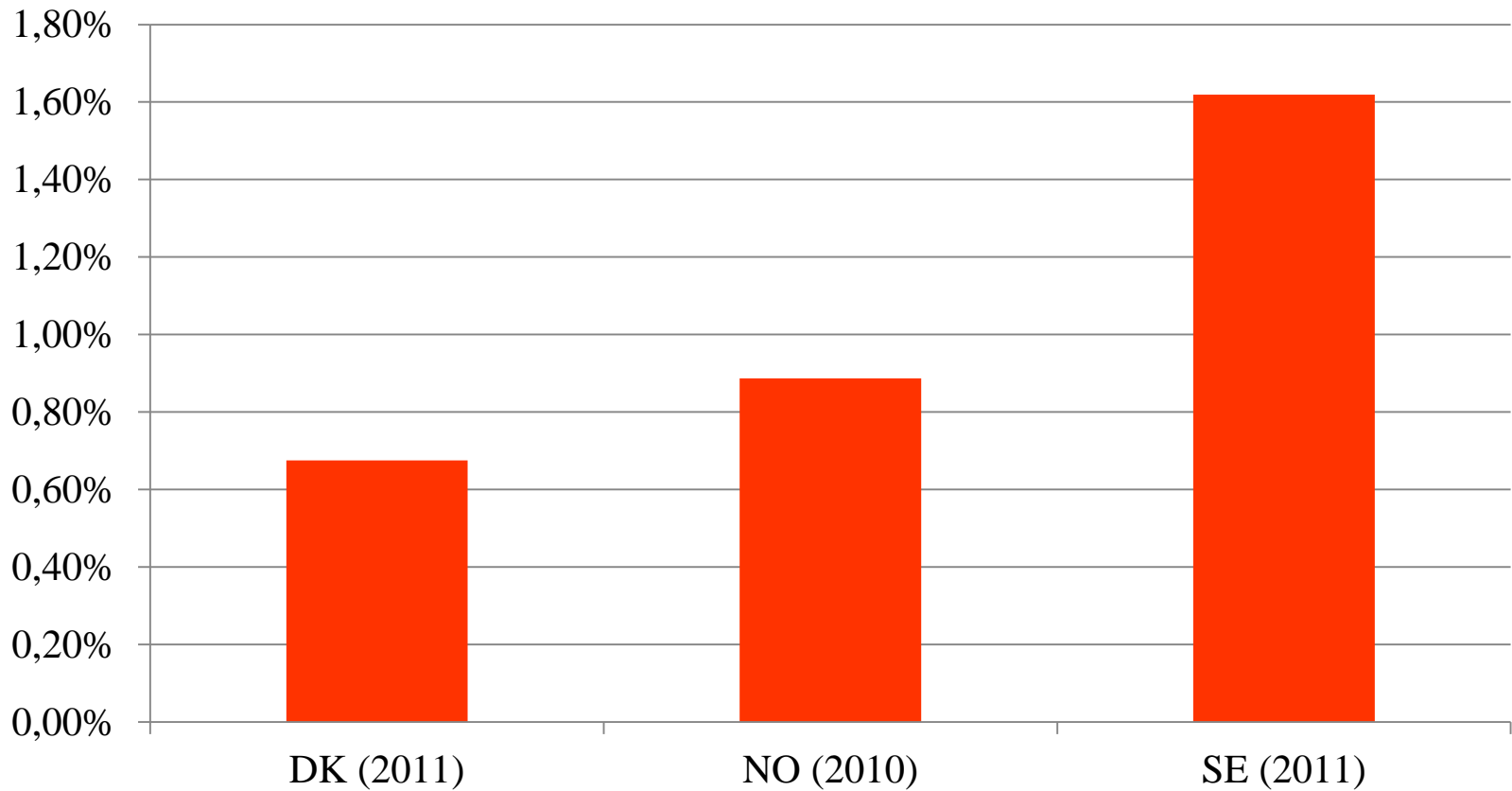
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- **Emissions to air** and water
- Pesticides, fertilizers
- Waste
- **Energy products** (fuels, electricity, heat)
- Transport
- Resources (gravel)

# CO2 tax Euro/tonne by industry for Denmark, Norway and Sweden

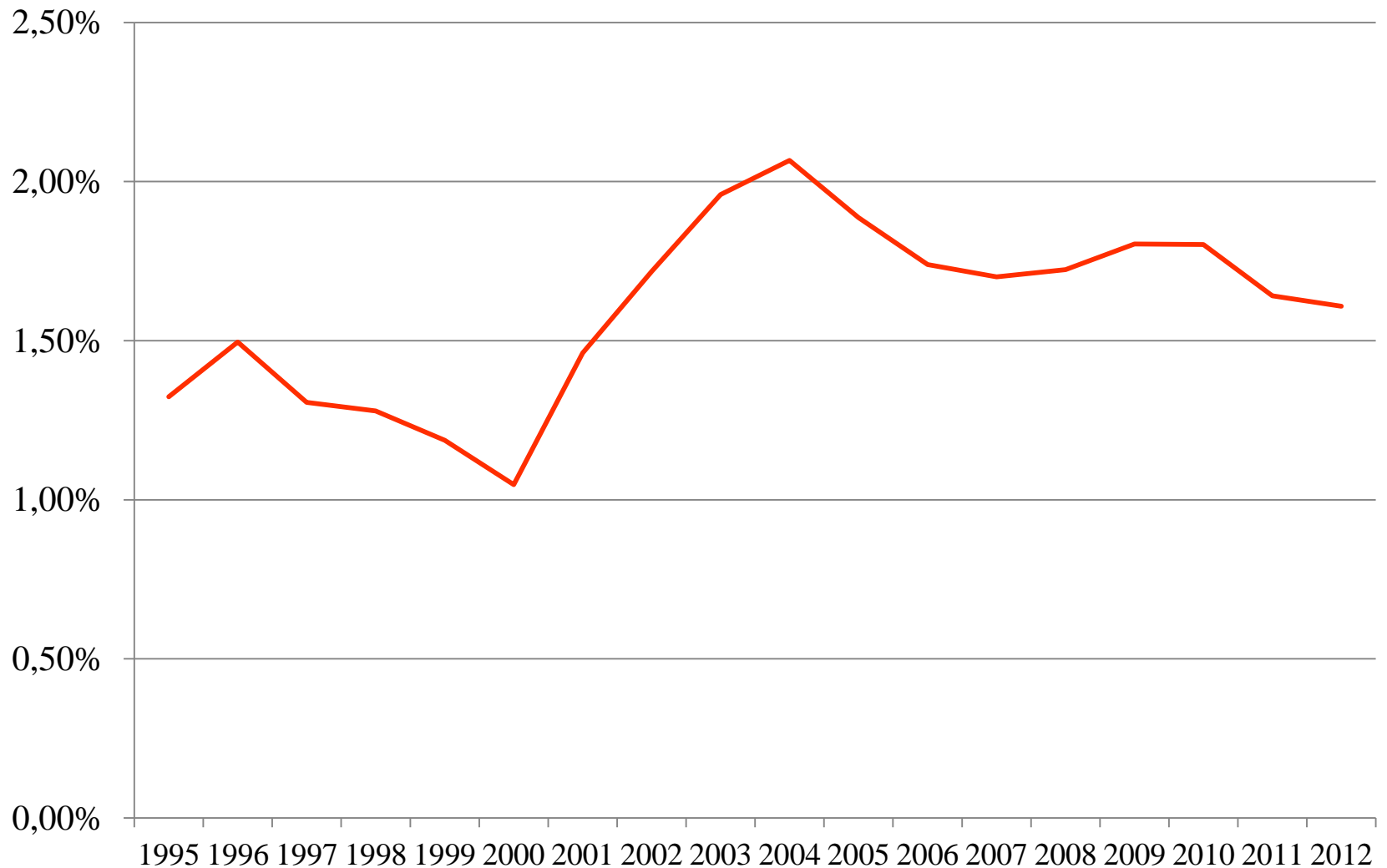


# CO2 tax share of total revenue, Denmark, Norway, Sweden

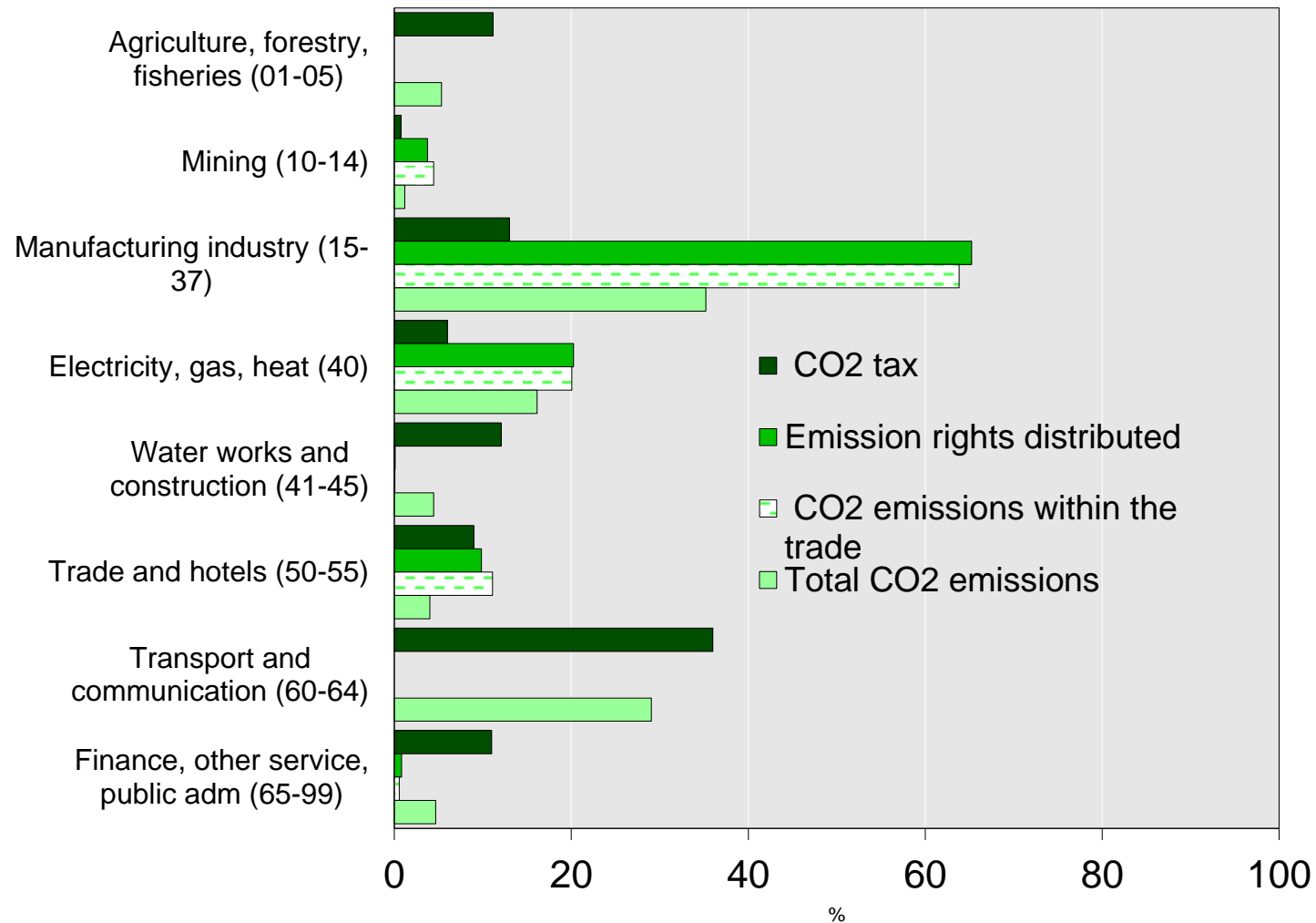




# CO2 tax share of total taxes Sweden



# Distribution of CO2 tax revenues, emissions rights, CO2 emissions covered by the trading scheme and total CO2 emissions in Sweden by Industry (NACE)



# SEEA subsidies

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- Environmentally motivated
- Potentially damaging
- Other

# Environmentally motivated (EM) subsidies method

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- The budget lines are searched for the main motive of the transfer.  
Typical areas include biodiversity, monitoring of environment, R&D for cleaner energy technology or for energy efficiency.
- The funding for buses and trains is allocated to 'other subsidies' as it is mainly funded for other motives than environment.

# Conclusions

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- Environmental taxes data situation is mature, totals and by industry. The Nordic countries have all implemented a CO<sub>2</sub>-tax. The levels and design of the taxation differs between the countries.
- Environmentally motivated subsidies data available for selected countries (SE, DK). Renewable fuels are of interest (R&D).
- Potentially environmentally damaging subsidies. Method suggested, few countries have data. OECD study on fossil fuel subsidies could provide a basis for development. Need for some international reference values to become comparable between countries.

# Conclusions continued

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- Emission rights. Method available. National studies. Database on EU level but not easy to use.
- The Environmental goods and services sector connection to climate change concerns renewable energy. Data on employment and exports.