

Does evaluation really have an influence on present climate policy control?

Experience from swedish paper and pulp industry



This study is one of the assignments carried out within the framework of Growth Analysis' commission from the government entitled "Förutsättningar för grön strukturomvandling" [Prerequisites for Green Structural Change].

The aim of the assignment is

to contribute to knowledge about how the institutional framework should be developed to support a green sustainable structural change.



2013: Case Study - The paper and pulp industry

The motives for carrying out a case study

- **Complementing general knowledge of individual instruments and principles with:**
- **Specific knowledge of how the instrument arsenal and other factors together affect businesses**
- **What instruments that are perceived to be effective from an actor's perspective**



The parts of the study

- Mapping the policy rethoric and practice by combining research literature reviews and interviews
- A survey of the structural transformation importance for the green transition since 1993
- Two Research Literature Reviews
- Economic research on the Swedish forest industry's transformation since 1990. "Transition theory" - an international innovation-oriented perspective on the change in the forest industry.
- Qualitative interview study
- Forest industry perspective
Hans ten Berg, Eva Alfredsson, Growth analysis



Who were the respondents?

In the study 11 energy and environmental managers or experts on the forestry industry were interviewed. These can be divided into:

- **Forest industry:**
 - Pulp
 - Paper
 - Hygien
 - Nischproducts
- **Andra aktörer**
 - Skogsindustrierna (trade organisation)
 - Industry ministry
 - Swedish forestry agency



Sunpine Piteå

Domsjö Fabriker AB

SCA Ortviken

Arctic Paper Grycksbo

Stora Enso AB

SCA Lilla Edet

Södra Cell Värö

Meto

Image U.S. Geological Survey
Image IBCAO
Image Landsat

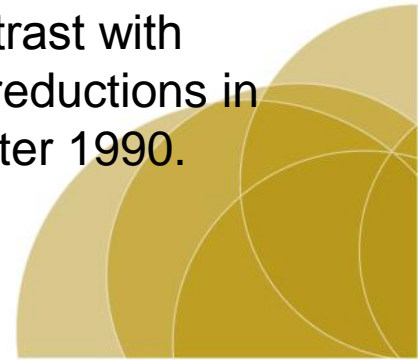
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google earth

Bilddatum: 10-4-2013 61°18'52.89"N 16°41'37.44"Ö höjd 202 m visningshöjd 1317.68 km

The Swedish forest industry is a clear example of a successful greening process

- Even though carbon dioxide productivity is increasing all the time in Swedish industry, it has not resulted in an absolute reduction in emissions since 1993. On the contrary, carbon dioxide emissions increased during the whole of the 1990s and have remained largely unchanged over the past decade.
- Only 20% of Sweden's economic growth since 1993 is attributable to sectors that have at the same time reduced their emissions, or in other words seen what we call *green growth*.
- The forest industry's development in this respect is in clear contrast with development in other sectors of industry where the substantial reductions in emissions (in absolute terms) since the 1970s came to a halt after 1990.



The contribution of the case study

Differentiated picture of the actors who are the target of the climate-policy instruments

Describes how policy instruments affect individual companies

Depicting the companies' own driving forces

Describes corporate discretion based instruments and global competition

Describes the companies' views on politics, climate targets, instruments

Describes the companies' future needs

Instrument that affect forest industry

Environmental legislation in 1969 with its requirement for individual licences.

EU's Emissions Trading Scheme (EU ETS).

Programme for Energy Efficiency (PFE)

green certificates for increased bio-fuel production

Climate investment program, Klimp (2003-2012), and the Local investment program, LIP(1998-2002)

Carbon dioxide tax

The fee for emissions of nitrogen oxides

Central questions

1. What factors have been most important for the forest industry's green conversion (lower impact)?
2. What instruments have been most important for the forest industry's green conversion (lower impact)?
3. How should the institutional framework developed if the target is a green structural change?
4. Have instruments brought forth new entry or innovation?

What factors have generally been of importance for forest industry's green conversion (lower impact)?

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| <ul style="list-style-type: none">• Rising energy prices• Energy transition from oil• competent authorities• Recycling of chemicals• Chlorine-free paper | <ul style="list-style-type: none">• Public opinion• "Eco-labeling"• sustainability Strategies• Climate policy goals• Their own driving force |
|--|--|

What instruments have been most important for the forest industry's green conversion?

- Historically, environmental law and appeal played an important role
- The companies estimate performance-oriented instruments such as PFE and green certificates
- Companies feel that environmental taxes are too broad and do not necessarily control the environmental benefits - are seen as added cost
- Emissions trading does not work when the number of allowances is too big and the price is too low

What factors and policy instruments have been most important for the forest industry?

- Most states that policy instruments affect maneuver only to some extent
- World market and the real exchange rate affects more than instruments
- Control measures distort competition globally
- EU accession has meant more complicated and less effective instruments
- The instruments are administratively heavy

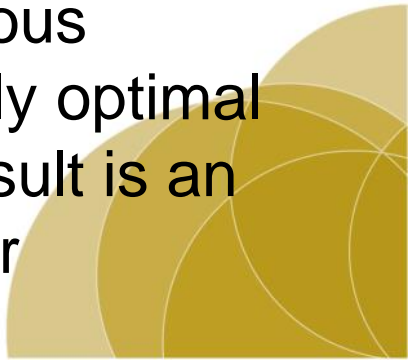
What factors and policy instruments have been most important

- Environmental legislation and the individual licensing process has been central to the forest industry's green conversion.
- The oil crisis and the Swedish energy policy aimed at reducing oil independence. The deregulation of the electricity market has also been relevant since increased electricity prices have contributed to substantial improvements in energy efficiency and investments in biofuels
- In the forest industry but the instruments do not seem to have led to innovations or new entrants

Conclusions from the case study

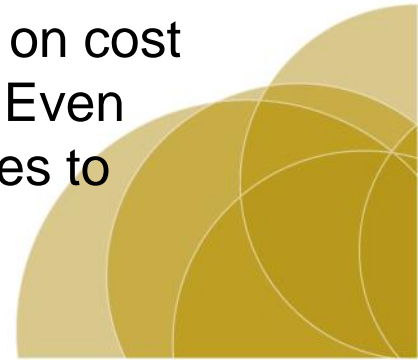
- Global competition, the demand for environmentally friendly products and incentives have also led to a new sustainability standard and a stronger incentive to production should be environmentally sustainable
- National performance-oriented instruments has had importance for the conversion in a greener direction. Control measures at EU level are not effective or counterproductive
- According to literature reviews and interviews specific regulations are the type of instrument that seems to have meant the most, while the effects of the general economic instruments is far more uncertain.
- The companies argue that their environmental policies, public opinion and "eco-labeling" controls their environmental efforts today more than instruments - they have to some extent had its day

More conclusions...

- The case study findings raise the question of how effective the shift that has taken place from regulating the general policy instruments
 - The general means of control are in theory cost but have the disadvantage that they are not adapted to the context in which different sectors and business conditions differ
 - For a general theory, cost-effective instrument, such as the carbon tax, shall be effective requires that it be raised to levels at which some companies may major problems with their competitiveness and profitability.
 - To avoid these negative effects introduces various exceptions which in turn leads to the theoretically optimal instrument design is abandoned and the end result is an instrument design that is neither cost effective or effective.
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Does evaluation really have an influence on present climate policy control?

- Modern growth policy stipulates less governmental command and control, and more instruments focusing on cost effectiveness. The last decades, environmental instruments have been characterized by general economic instruments, as for example carbon dioxide taxes in Sweden or the emissions trading within the EU.
- Although several evaluations show that these instrument has not been as effective as command and control instruments, as for example the introduction of the act, at least not in Sweden. The fact is that evaluations are in many ways equivocal regarding the effectiveness of environmental instruments.
- Today, the general means of control for the next 90 percent of the instruments arsenal measured in monetary measures. Results from the case study raises the question of climate policy focus on cost effectiveness measures have led to a less active politics. Even further, what role does evaluation really play when it comes to designing truly effective instruments?



A broader picture - How should the institutional framework be developed?

- **General and international (EU) instruments should be complemented by decentralized, national development goals and policy instruments. The general instruments aims to create fair competition-neutral rules of the game but have little impact on the Swedish forest industry transformation.**
- **The national, sector-specific objectives and instruments should be performance oriented and designed in dialogue between regulators and businesses**
- **The sector-specific expertise in the ministries and authorities should be strengthened to a solution-oriented dialogue between regulators and companies can be restored / enhanced**
- **Solutions on how innovation and investment of considerable importance for the green transition and industrial competitiveness can be supported and implemented needs to be developed**
- **Policies for a Green structural change should focus on support proactive companies**

