

Study: Environmentally Harmful Subsidies - A Threat to Biodiversity



How financial incentives can endanger Biodiversity!

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Information about GBG

- **Förderverein Ökologische Steuerreform e.V. (FÖS)/ Green Budget Germany (GBG)**, founded in 1994, is promoting the increasing use of market-based instruments (MBIs) :
- **Environmental Tax Reform (ETR)**
- **Emission Trading (ET)**
- **Environmental Fiscal Reform (EFR)** included cutback of environmental harmful subsidies
- In our **Advisory Board** are representatives of parties, economy, science and NGOs
- Publications: many studies, books, articles and newsletters in German and English about MBIs: **ÖkoSteuerNews** and **GreenBudgetNews** – free subscription via website.
- **8th Global Conference on Environmental Taxation (GCET 2007)** in Munich:
www.worldecotax.org
- Yearly **Adam-Smith-Award** for market-based environmental policy
- **Green Budget Europe**
- Förderverein Ökologische Steuerreform e.V.



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But first of all: Thanks a lot!!!



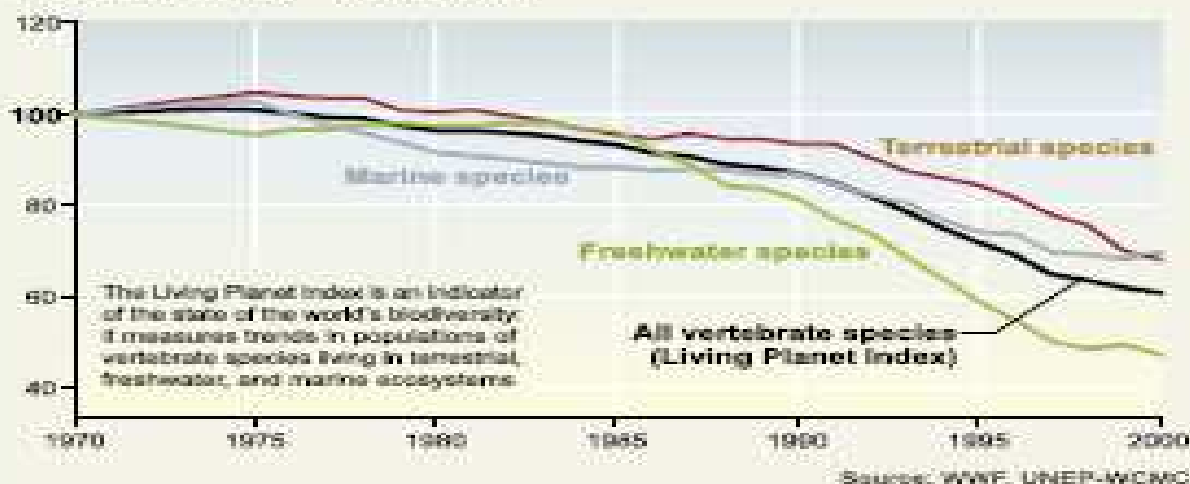
And of course:



COP 9: Loss of biodiversity undamped

- The speed of the extinction of animal and plant species is actually 1000 times higher than in prehistoric times, that is before there were humans on the planet.
- If we do nothing, the actual loss of biodiversity will be increased tenfold until the year 2050.
- Every two seconds primeval forests as big as a soccer pitch disappear.
- In Germany the loss of natural habitat area between 2000 und 2005 for urban expansion and infrastructure averaged about 114 hectares per day (today: about 100 hectares).
- If this trend can not be stopped, the deterioration of habitats and the consequences of climate change will lead to the extinction of 1.5 million animal and plant species on the globe in the next 25 years.

Population Index = 100 in 1970



The Problem:

"A typical American taxpayer forks out a least \$2,000 a year to fund perverse subsidies, and then pays another \$2,000 through increased prices for consumer goods and services or through environmental degradation."

Dr. Norman Myers, consultant of the former US-Government, laureate of the Blue-Planet-Price 2001 and author of the study „Perverse Subsidies: Taxes Undercutting Our Economies and Environments Alike“

Definition:

What are Environmentally Harmful Subsidies (EHS)?

- **Broad definition: indirect subsidies and shadow subsidies are included.**
- **The OECD defines EHS as „all kinds of financial supports and regulations that are put into place to enhance the competitiveness of certain products, processes or regions, and that, together with the prevailing taxation regime, (unintentionally) discriminate against sound environmental practices.“**
- **Relevant for this study are all subsidies that (can) have a negative impact on the environment.**

Amount of environmentally harmful subsidies

- UNEP estimates environmentally harmful subsidies to lie between 500 billion and 1.5 trillion USD per year.
- Subsidies in the agricultural sector alone amount to 240 billion Euro in OECD-Countries (that is about 381 billion USD).

Billion USD	Total conventional subsidies	EHS out of total conventional subsidies
Agriculture	376	207
Energy	85 - 244	64 - 216
Road Transportation	225 - 300	110 - 150
Water	69	50
Forestry	35	35
Fisheries	20	19
Total	810 – 1,044	485 - 677

Which value has Biodiversity?

- Economically hard to measure
- The EU Commission estimates a value of 26 trillion Euro for goods and services which the global ecosystem provides annually.
- The German government estimates the annual benefit of all ecosystems at 16 trillion USD.
- According to the Stern report the maintenance of tropical rainforests and the moors is the cheapest measure of protecting the climate.
- In fact: Can you imagine our planet Earth without biodiversity/biological life? → Limitations of Economics!

Protection is better than utilisation

- **Cost benefit ratio of protection and economic use of nature 1:100:**
- **A global program for the protection of biodiversity would cost yearly 45 billion US Dollar. Scientists estimate its benefit up to 5,200 billion Dollar yearly.**
- **In comparison: economical and ecological perverse subsidies mount up to 950 to 1,950 billion US Dollars yearly.**

Examples of economical and ecological advantages



- **Kamerun: Preservation of the tropical Rainforest with sustainable use of trees leads to social, economic and globale advantages especially because of erosion control and binding of carbon in the amount of 3,400 USD per hectare. The transformation to food-production would generate 2,000 USD per hectare. (Oil palm plantations: only 1,000 USD per hectare).**
- **Thailand: The transformation of mangroves to shrimp farms generates private benefits of up to 200 USD per hectare. The economic benefit of the mangroves (wood, fish-hatcheries, flood-prevention and climate protection) is between 1,000 und 36,000 USD per hectare.**
- **Canada: dry up of swampland to grasland renders benefits of 2,400 USD per hectare. The economic benefit of the swampland (hunting, fishing, binding of carbon) is more than 5,800 USD per hectare.**

Climate-killing subsidies in Germany

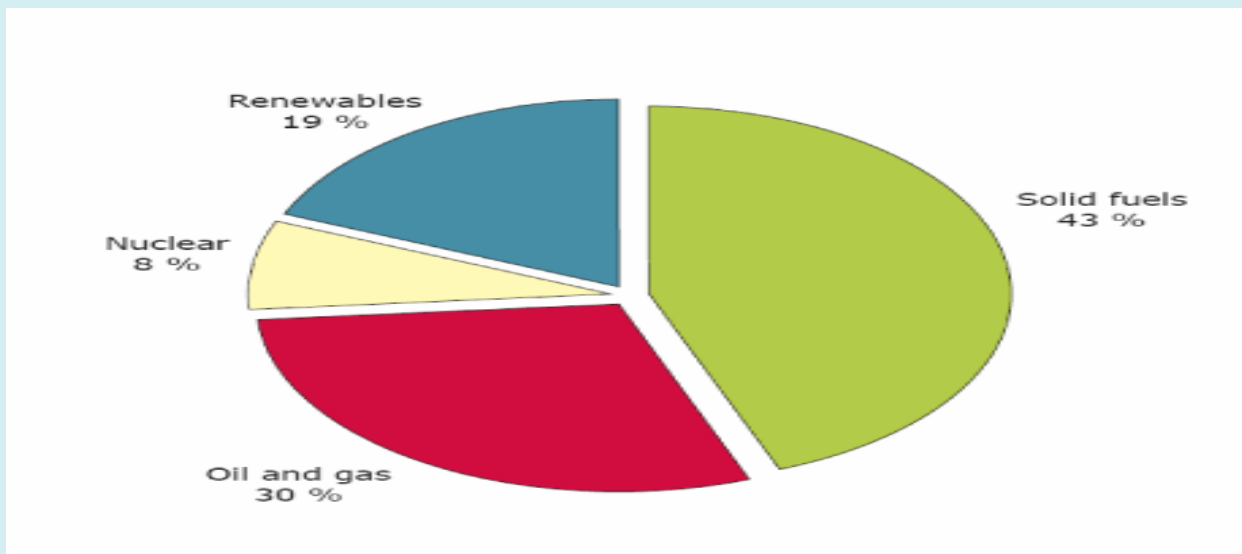
**Blackbook 2006:
34 billion Euro per year**



Biggest positions in billion Euro:

- Exception of eco-tax (8.8)
- Tax exemption of air traffic (8.7)
- Less taxation of diesel (6.0)
- Black Coal-subsidies (2.7)
- Commuter tax allowance (1.5)
- Company car privilege (0.5)

Europa isn't much better: split-up of energy subsidies in EU-15



- The direct energy subsidies in Europe are estimated at 29 billion Euro.
- 19 % are spent on renewables, 80 % in fossil and nuclear energies.

Harmful subsidies in transport in the EU (billion Euro in 2005)

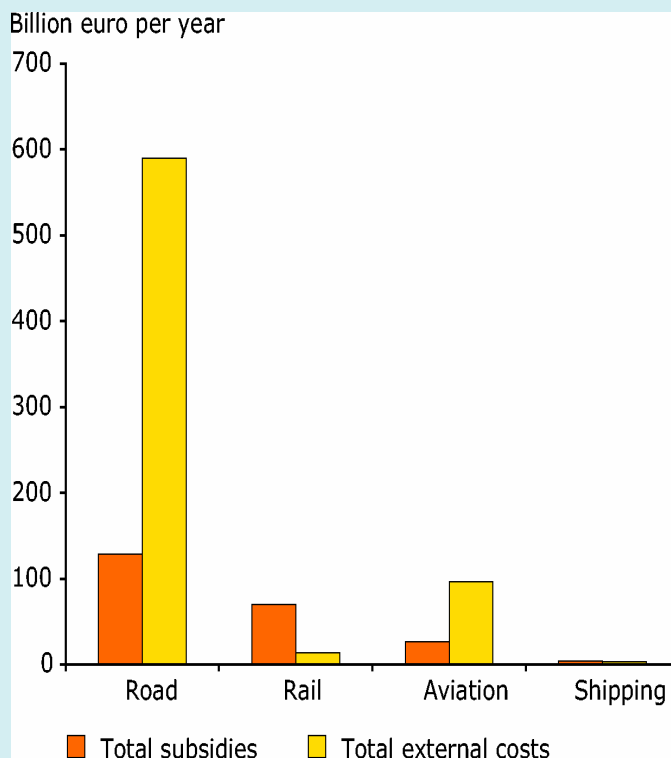
	Infrastructure Subsidies (EU 15)	Other budget transfers	Fuel tax exemptions	VAT exemptions	Total
Road	110	7	0	9	125
Rail	37	33	0-1	3	73
Air	0	1	8-16	18	27-35
Water	10	1	3-19	0	14-30
Multiple Modes		30			30
Total	156	73	11-36	29	269-293

Global transport subsidies: 750 billion Euro.

Almost half of the environmentally harmful subsidies in the world are for transport.

- Harmful financial incentives (including external costs of transport such as environmental and climate damages of 650 billion Euro) amount to 919 to 949 billion Euro.
- Tax revenues of the transport sector are only 200 billion Euro.
- This means transport subsidies add up to 700 to 750 billion Euro.

Car and air transport cause the largest environmental costs



While the length of the EU-15 motorway from 1970 to 2001 was tripled, the length of railway lines decreased by 19,000 km.

Ecological disadvantages:
 fragmentation of natural habitats of animals and plants, negative effects on the ability to live of ecosystems and on the population of animals:
 -Landconsumption of motorways and barriers for the mobility of animals,
 -Displacement of animals because of noise
 - run down of animals on the streets

Worldwide fuel subsidies

Positive China:

The fuel subsidies were reduced:

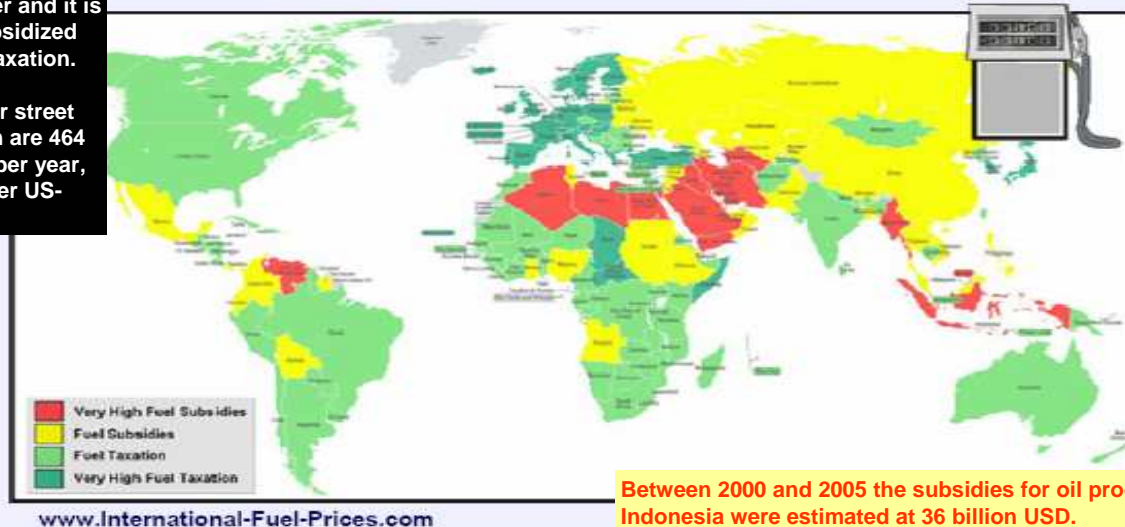
On 1.11.2007 the taxes on fuel were raised by 0.04 Euro/l!

Environmental Tax Reform in discussion.

In the USA fuel is still often cheaper than mineral water and it is strongly subsidized due to low taxation.

The costs for street construction are 464 billion USD per year, 1,700 USD per US-citizen.

International Fuel PRICES 2005



Between 2000 and 2005 the subsidies for oil products in Indonesia were estimated at 36 billion USD.

In Venezuela one liter of fuel costs only about 3 US-Cent. In Iran the direct and indirect subsidies for oil products are estimated at up to 18 % of the national product.

OECD: Only 4 % of agricultural subsidies are good for the environment

- 44 billion Euro – 40 % of EU-budget – for agriculture. Germany's share: 9,3 billion Euro
- Agricultural subsidies of OECD-States: 346 billion USD yearly
- Leads to: overproduction, overfertilization, massive use of pesticides and reduced competitiveness of agriculture of development countries
- OECD (2005) says, that one third of agriculture income are subsidies – only 4 % ecological favourably.

Subsidy reform in the agriculture sector

- Agriculture is e.g. responsible for 40% of the nitrate in Danube (Donau)
- Within the OECD-states price-subsidies have a share of 60% and are thus the most important facilitating instrument for producers. Fertilizer and pesticides receive further subsidies.
- In recent years some reforms of Common Agriculture Policy (CAP) tended to decouple subsidies from production and to link them to the compliance with environmental standards (Luxemburg Conclusions 2005).
- In 2004 ecological areas in the EU had a share of 3,4% of the whole agricultural area.

Water use and desertification

- The water-intensive cultivation of cotton – highly subsidized by USSR – lead to the dry up of the Aral Sea
- USA subsidized the cotton industry with yearly 3 to 4 billion Euro, EU in 2006 700 million Euro (in Spain and Greece)
- EU- and US-subsidies are responsible for 38% of the income losses in western Afrika. US-Subsidies alone reduced the world price of cotton by more than 12%.
- As compansation EU pays 200 millions USD subsidies for the cultivation of cotton in western Africa!
- In December 2007 WTO adjudged USA to a penalty payment of 3 billion Euro because of export subsidies. USA preferred to pay the penalty instead of ceasing their cotton subsidies.



70% of the world water consumption is for agriculture

Extinction of species in the Baltic Sea

- Annually about 35.000 tons of phosphorus and more than one million tons of nitrate are washed into the Baltic Sea
- About 90% of the phosphorus and more than 50% of the nitrate stem from agriculture
- The Baltic Sea contains 8 times more phosphate and much more nitrates than 100 years ago.
- This leads to fast growth of algae and plankton. Plankton uses up oxygen and thus prevents life in large zones. Natural seaweed meadows are crowded out.

The agricultural subsidies of the EU burden each citizen in the Baltic Sea countries with 72 Euro per year. Overall yearly agricultural subsidies of 10.4 billion Euro are spent.

In addition 2 billion Euro have been used for converting traditional agricultural areas to industrial agriculture. However, only 5 percent of this amount were used to promote environmentally-friendly agriculture.

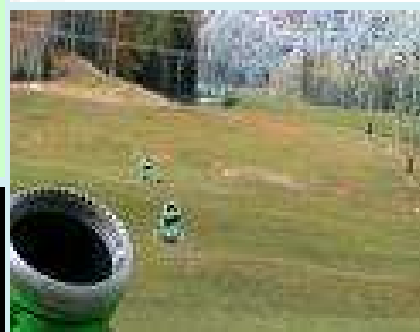


„Dead Zones“ cover an area of more than 70.000 square kilometers.

The highly toxic blue algae flowerishing covered an area of several hundred square kilometers between Finland, Sweden and Poland.

Promotion of the economy to the detriment of biodiversity

- The ‚Mühlenberger Loch“ was the last wide area sweet water wadden sea between Hamburg and the Elbe delta.
- It served as resting area for migrating birds and breeding area for many fishes.
- It was completely destroyed and filled with gravel, stones etc. to allow for the prolongation of the runway which is required for the take-off of the Airbus A380.
- This support for Airbus was supplemented by another billion Euro from the German government.
- The Hamburg Senate topped it by another 1.3 billion Euro.
- Each job is thus subsidised by more than 160.000 Euro – mostly more than the workers earn.



Lower Saxony/Germany supports snow cannons in the National Park Harz by almost 1.5 billion Euro.

EU-Structural Funds against Biodiversity

- The budget for Structural Funds is the 2nd largest after the one for agriculture.
- More than 2/3 of structural funds in the EU are considered of having negative impacts on the environment and thus often reducing biodiversity.
- Example:
Until 2020 225 billion Euro from the EU budget shall be spent on the extension of the river Danube as transport infrastructure leading to severe damages of biodiversity.



In Greece the motorways of Egnatia was cofinanced by 50% by the EU. Environmental prescriptions were either badly considered or non-existent.
Paradox: The EU promoted exactly those brown bears through a LIFE-project which were negatively affected by the motorway.

Positive Examples of Environmentally-Friendly Subsidy Reforms

- Brazil reduced its subsidies to cattles in the Amazon area substantially and has introduced an ICMS-E (Indicator of Compensation for Monetary Support for Environmental Areas) – for details see next slide.
- New Zealand has abolished its agricultural subsidies almost completely, although – or just because – it is very dependant on agriculture. Today there are more farmers in NZ than at the beginning of the cutting of subsidies.
- Chile and Argentina also cut their agricultural subsidies heavily.
- Russia reduced its subsidies for fossil energy from 29 billion USD to 9 billion; China reduced them from 25 billion to 10 billion USD.
- Indonesia reduced its fertiliser subsidies from 732 million USD to 96 million USD.
- Pakistan reduced its fertiliser subsidies from 178 million to 2 million.
- Bangladesh and the Philippines have completely phased out the previously 56 respectively 48 million USD for fertilisers.

Ecological environmental financing in Brazilian municipalities

States in Brasil with an Indicator of Compensation for Monetary Support for Environmental Areas (ICMS-E – 2004)



- Brazilian government has also implemented fiscal incentives to protect the rainforests.
- Hence, the areas of natural protection are considered in the municipal fiscal compensation scheme.
- Municipalities now also have direct fiscal interest to protect biodiversity instead of only using it (up) commercially only.
- After the introduction of the indicator (ICMS-E) the Brazilian State Parana the share of municipal areas of nature protection increased within ten years by 192 percent.
- For details please see:
<http://www.foes.de/de/downloads/tagungvilm2005/UFZ%20Disc%20Paper%2012-2004%20Ring%20Fiscal%20transfers%20Brazil.pdf>

Subsidy Controlling required

- **Transparency of subsidies: Who gets how much for what and why?**
- **International conventions must comprise binding targets and time schedules for subsidy phase out.**
- **Prior to introduction of new subsidies should be screened according to their environmental harmful impacts (veto right for environmental institutions)**
- **All subsidies must be limited in terms of duration (sunset legislation).**
- **Regular reporting on all subsidies including its impacts and reform options (German government does at least report every 2 years on most subsidies as the only government worldwide)**
- **Such a „Subsidy Controlling“ could help to use tax payer’s money and to protect the environment more effectively**
- **WTO should integrate environmental aspects and should sanction environmentally harmful trade.**

Window of opportunity for cutting environmentally harmful subsidies

- Agricultural prices are high as never. Demand is ever increasing, also due to the boom of biofuels and the global demand for resources. Hence subsidies become increasingly superfluous.
- Fishery faces declining profits and the serious threat of the ECONOMIC basis of fishery due to declining fish stocks forces changes.
- The value of forests, wetlands and moors for climate protection and global biodiversity is gaining increasing attention. The global climate regime attributes an economic and fiscal value to these CO₂-sinks.
- Cutting subsidies – particularly in times of scarce fiscal resources – is very attractive and, at least generally, shared as a common value amongst a very broad majority of policy makers, parties and entrepreneurs.

Address your government here at the COP!

- Make them:
- Cut those many billions subsidies which promote (unintentionally) the loss of biodiversity
- Redirect the additional revenues for supporting biodiversity!

- Remember:
- Only if the spending of money follows the nice talks and speeches politicians love to give on Sundays, policy is seriously contributing to halting the loss of biodiversity.
- Money matters – this is also true for biodiversity which eventually is a tough economic issue (see access/benefit-sharing).

Thank you for your attention!

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