

Transport and Emission Trading in Switzerland

Dr. Jürg M. Grütter

jgruetter@transport-ghg.com

www.transport-ghg.com

grütter
— consulting

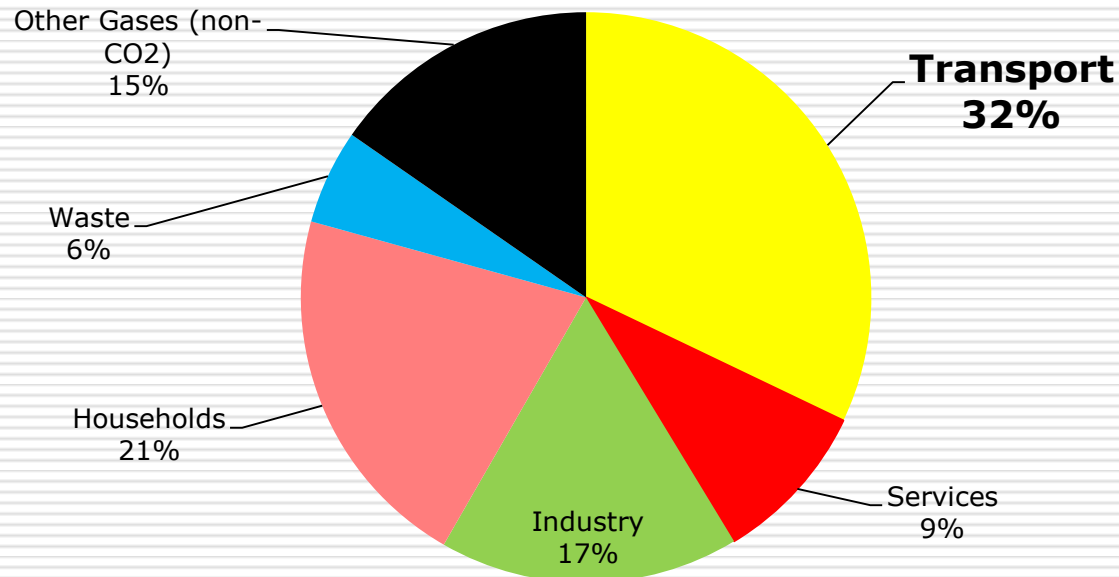
matching transport with carbon finance

Company Background

- Design, planning and implementation of GHG transport projects worldwide since 1992
- Development, negotiation and monitoring of the first GHG reduction sales agreement of transport companies in Europe
- 1st approved CDM transport methodology, 1st registered CDM transport project, 1st registered VCS transport project
- Author of >50% of all approved CDM transport methodologies, plus only VCS transport methodologies, plus GHG transport methodologies for Canada and Switzerland
- Author of > 80% of all CDM and VCS registered transport projects
- Offices in Switzerland, China, India, Colombia, Bolivia and partner offices in Mexico, Brasil, South Korea and VietNam

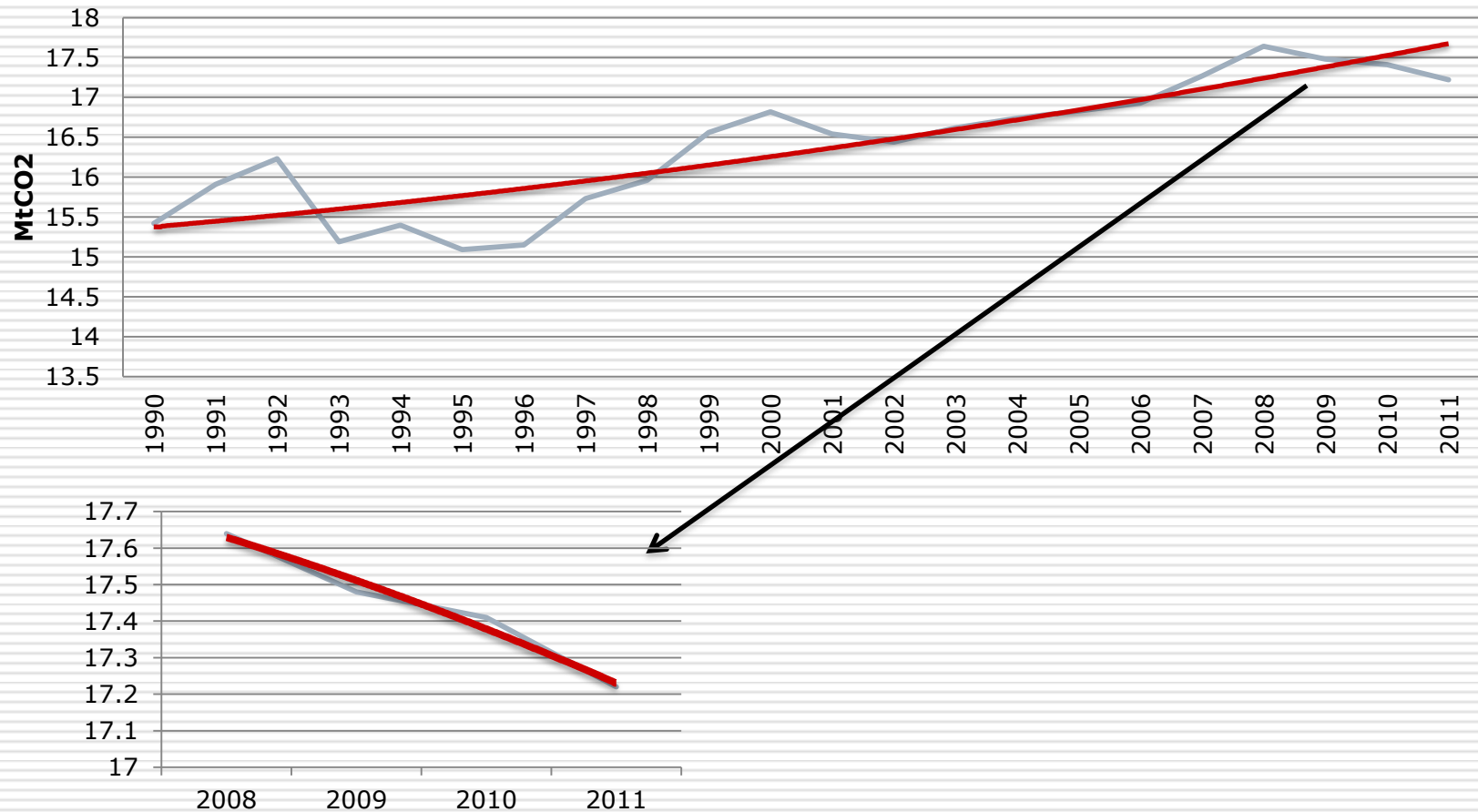
Background I: GHG Emissions of Switzerland

2010 GHG Emissions



Background II

Growth of Transport Emissions



Background III:

- ❑ Fuel producers and distributors have limited influence on GHG emissions
- ❑ With GHG revenues various measures in the transport sector can be initiated
- ❑ Paying per tCO₂ reduced is a more efficient means to reduce GHG in transport than subsidizing projects or programs



An emission trading market can be an efficient solution to reduce GHG transport emissions

Swiss Experience 2006-12: General Aspects

- ❑ 10/2005 a voluntary charge on transport fuels was levied by the Swiss Association of fuel importers (USD 0.015 per liter of fuel)
- ❑ The «voluntary charge» was levied due to a political agreement to avoid a carbon fuel tax
- ❑ The fuel association signed with the government a legal obligation to compensate a part of transport emissions and could do this through domestic and international ET
- ❑ The charge was used to acquire 17 million tCO₂ offsets, 20% of which domestic, thus creating a domestic emission market
- ❑ Domestic reductions follow national and international guidelines

Swiss Experience 2006-12: Transport

- ❑ >80 transport projects have sold since 2006 ER in the domestic ET market
- ❑ Projects have been grouped basically to reduce transaction costs (similar to POAs)
- ❑ Majority freight companies but also car fleets, building machines, alternative fuel projects and singular measures
- ❑ Baseline and monitoring methodology was established already 2004 and was approved by Swiss government

Swiss Experience 2006-12: Transport Measures

- Measures implemented by companies which received credits include:
 - Efficiency measures of vehicles e.g. EcoDrive, aerodynamic improvements of trucks
 - Efficiency measures per unit transported e.g. improved load factors, usage of larger trucks
 - Mode switch e.g. road-to-rail, conveyer belts
 - Trip avoidance or trip reduction measures e.g. improved logistics, construction of tunnel

Example: Galliker Logistics



Example Galliker

- ❑ Logistics Company with around 450 trucks
- ❑ Baseline emissions 2010 21,500 tCO₂
- ❑ Emission reduction 2010 4,500 tCO₂
- ❑ Emission intensity dropped from 33 gCO₂/tkm to 27 gCO₂/tkm (-18%)
- ❑ Measures taken:
 - Increased transport by train
 - Efficiency improvement of trucks (extra-wide tyres, aerodynamics, low viscosity oils etc)
 - Increase of average truck size from 26t to 27t whilst keeping average load factor
- ❑ Income from sale of ERs: around 4 million USD

Swiss Proposal 2013-20: General

- ❑ Carbon tax on non-transport fuels
- ❑ Importers of transport fuels must compensate 10% of transport emissions (future thermal power plants also have compensation obligations)
- ❑ Only domestic measures but maximum price increase due to compensation of 5 USD cents per liter of fuel (gives a maximum of around 200 USD per tCO₂ avoided)
- ❑ Projects must prove environmental and financial additionality with a procedure very similar to the CDM
- ❑ In principle very similar to Phase I: tax instead of «voluntary charge», domestic reductions based on ET, demand from fuel importers, managed by «same entity» with a new name

Swiss Proposal 2013-20: Transport

- ❑ Compensation projects e.g. in transport sector
- ❑ Currently a new methodological approach is being prepared for transport
- ❑ Basically a refined approach based on experience since 2006
- ❑ Projects potentially in public transport, freight and passenger car fleets (Mobility, taxis, rental car fleets)

Conclusions: It Can Be Done

- ❑ Transport can be integrated in domestic emissions trading
- ❑ Role of transport is basically credit provider
- ❑ Credit demand originates from companies with reduction obligations, fuel importers with commitments or a fuel tax

Conclusions: It Should Be Done

- ❑ Integrating transport in domestic emission trading is an efficient and cost-effective solution to reduce transport based GHG emissions
- ❑ Additional transport projects thus have an incentive to be implemented
- ❑ Important to have simple solutions which allow for grouping and standardization to reduce transaction costs and allow for smaller projects

Conclusions: It Has Been Done

- ❑ Methodological solutions exist and have been proven to work
- ❑ Switzerland has implemented a domestic ET system including transport since 2006 with more than 80 domestic transport projects trading their credits
- ❑ Transport GHG emission reductions cost in general more than reductions in other areas: earmarking a percentage of compensation projects /reductions to transport is recommended

More Information

Swiss Federal Office for the Environment FOEN:
<http://www.bafu.admin.ch/klima/index.html?lang=en>

Climate Cent Foundation:
<http://klimarappen.ch/en/foundation/portrait.html>

Foundation for Climate Protection and Carbon Offset KliK:
<http://www.klik.ch/en/Home.1.html>

Grütter Consulting AG:
www.transport-ghg.com
jgruetter@transport-ghg.com