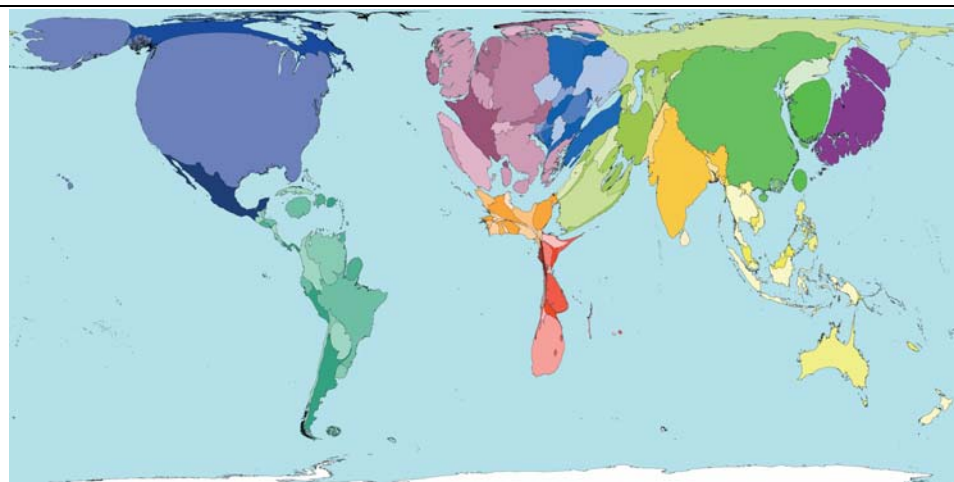


Saving the climate and making a profit is not an either/or proposition¹

"Beginning from the stroke of New Year, as they sit down to their evening meal on 2 January, a US family will already have used, per person, the equivalent in fossil fuels that a family in Tanzania will depend on for the whole year."²

By now it has become known to the majority of us that the combustion of fossil fuels generates CO₂ emissions, which is the most important greenhouse gases (GHG) to trap heat in the earth's atmosphere and cause it to warm up. On a global scale and across time, the wealthy have gone massively in debt to the poor what concerns pro capita GHG emissions (see map).

As to prevent further dangerous anthropogenic interference with the climate system and to curb emissions, the Kyoto Protocol has been adopted in 1997 and entered into force in 2005. According to the protocol, industrialised countries which are signatories are required to reduce GHG emissions to levels specified in the treaty. Developing countries have no obligations beyond monitoring and reporting of emissions. Emission reductions projects (also called offset projects) are one way out to achieve emission reductions while at the same time allowing poor nations – which will bear the greater burden of global warming - to develop. Such emission reduction activities have prospered: In just a couple of years a large carbon market worth more than USD30bio in 2007 has emerged with million of tons of GHG emission reduction to be achieved in the coming years³. The fairly well established compliance (mandatory) market has been extended to admit voluntary initiatives to reduce, determine and label GHG emissions. These voluntary initiatives have taken root and started prospering.



<http://www.worldmapper.org>. Data from the year 2000.

Unequal use of global commons: The map shows a distorted world. The countries and continents have been re-sized according to the emission of the GHG CO₂, methane and N₂O – which account for the vast majority of the greenhouse effect⁴.

Voluntary measures soon to take the running over the compliance market

Compliance markets are created and regulated by mandatory carbon reduction regimes, such as the Kyoto Protocol or the EU's emission trading scheme. The Kyoto protocol suggests flexible mechanisms

¹ Adapted from Bob Willard: *The Sustainability Advantage*, <http://www.sustainabilityadvantage.com>

² Andrew Simms: *Ecological debt – The health of the planet and the wealth of nations*, London, 2005:98-99

³ http://www.co2-handel.de/article58_8660.html

⁴ GHG emissions from loss of forests excluded

which allow countries with emission reduction targets to meet their emission limitation by purchasing or achieving GHG emission reductions. Such reduction allowances can be bought either from an emission trading scheme or reached through investments in projects which reduce emissions:

- The **Emissions Trading Scheme** creates a global carbon market through which emission reductions can be traded
- The **Clean development mechanism (CDM)** gives investors from industrialised countries with emission reduction obligations the possibility to invest in GHG reduction projects in developing countries.
- **Joint Implementation (JI)** gives investors from industrialised countries with emission reduction obligations the possibility to invest in GHG reduction projects in other industrialized countries or in transition economies.

1170 CDM projects have already been registered and some 2500 are at validation, with expected 2793Mio certified emission reduction units expected by 2012⁵.

All offsets created under this compliance market have to meet strict requirements and to follow lengthy procedures to being recognised as Kyoto conform. CDM and JI projects are independently verified as to make sure that the reductions have actually taken place and the reduction allowances have to be registered. This has the advantage of high credibility, a good cover against errors, and facilitation of transactions with a registry based on established standards and procedures. In addition, CDM and JI have been defined an important part of the solution to the climate crisis because of their potential to deliver sustainability co-benefits through technology transfer and capacity building.

However, there has been an on-going debate about the usefulness of the Kyoto protocol's mechanisms. Some critics see in it a highly inequitable and inefficient agreement which does little to curb real GHG gas emissions, since emission reduction volumes have been limited due to high transaction costs, lengthy control procedures and bottlenecks at several stages of the control process. Further concerns have especially surrounded the CDM's failure to promote sustainable development and additional emission reductions: a study prepared for the WWF claimed that 20 per cent of the approved carbon credits traded through the CDM scheme should not have been certified and are fundamentally flawed, since they would have been delivered anyway without CDM financing⁶.

Beyond the compliance market, and as to address some of the problems listed above, a distinct **voluntary offset industry** has emerged and been thriving, reaching some USD331Mio value in 2007⁷. Even though the voluntary market does not yet make a significant contribution to reducing GHGs, it has been winning influence. Voluntary types of offset projects and emission reduction activities enable companies and individuals to achieve or purchase GHG emission reductions on a voluntary basis⁸. Such activities have extended to countries, stakeholders and technologies not embraced by the existing compliance regime. Voluntary initiatives have been said more cost efficient than compliance market projects, thereby accelerating the pace at which organizations commit to reductions. As a contrast to CDM and JI projects, the criteria they have to comply with in order to be eligible are in most cases less strict and bureaucratic, so that they can be achievable for projects which would not reach CDM / JI status.

⁵ <http://www.cdmpipeline.org/overview.htm>

⁶ *Is the CDM fulfilling its environmental and sustainable development objectives? An evaluation of the CDM and options for improvement*, Öko-Institut, 2007, http://assets.wwf.org.uk/downloads/cdm_fill_objectives.pdf

⁷ http://www.co2-handel.de/article58_8660.html

⁸ For an overview of voluntary standards, please refer to the WWF study: *Making Sense of the voluntary carbon market, a comparison of carbon offset standards*, http://assets.panda.org/downloads/vcm_report_final.pdf

The voluntary market so far had been characterised by a lack of transparency and credibility due to several factors, e.g. the absence of carbon registries for listing transactions (danger of double counting, i.e. several people take the credit for the same GHG emission reductions); differing procedures with different levels of rigorousness among the standards; and varying prices of the offsets. Numerous new standards have been introduced over the last couple of years and the competition among carbon offset standards has increased dramatically. However, consolidation has been ongoing through the introduction of credible project standards – with clear guidelines on issues such as additionality and an obligatory entry into a registry – and has greatly enhanced credibility and driven demand. Voluntary markets offer different and complementing niches from CDM and JI and can serve as a testing ground for future policy and mandatory regimes.

Major international voluntary schemes: GHG protocol, ISO14064 and VCS

The GHG protocol, ISO 14064 and the Voluntary Carbon Standard VCS have been designed among others to promote consistency, transparency and credibility in GHG quantification and also to facilitate the trade of emission reduction allowances.

GHG protocol

The Greenhouse Gas Protocol, a partnership between the World Resources Institute and the World Business Council for Sustainable Development, is the first international policy-neutral calculation tool for quantifying and managing GHG emissions. Its first edition came out in 2001. The GHG protocol consists of 2 modules: the Corporate Accounting and Reporting Standard provides the methodologies for organizations to inventory and report the GHG emissions they produce; while the GHG Protocol for Project Accounting is geared towards calculating GHG reductions from mitigation projects. The GHG protocol provides the accounting framework for other GHG standards and programmes, such as ISO 14064 I which adopted the Corporate Accounting and Reporting Standards as its basis. The GHG protocol is probably the most widely spread tool to manage the carbon footprint.

ISO 14064 and 14065

ISO 14064 I specifies the quantification, monitoring and reporting of GHG inventories at organizational level; ISO 14064 II lists the principles for identifying the project baseline scenario and guidance on the monitoring and quantification of GHG emission reductions and removal enhancements for offset projects. Both I and II support the design, development and implementation of comparable and consistent activities. Other GHG voluntary or compliance standards can be applied within their general framework.

The validation and verification requirements for ISO 14064 I and II are specified in ISO14064 III. Finally, ISO14065 specifies the accreditation requirements for the recognition of certification bodies which validate or verify GHG assertions or claims. The accreditation has to be carried out by a recognised national authority to ensure that the certification body is compliant with the standard and has the competence and systems to carry out validation and verification in this specific field.

Voluntary Carbon Standard VCS

The VCS - which is based on the CDM - has been developed by the Climate Group⁹, the international Emissions Trading Association and the World Business Council for Sustainable Development. It is a global standard for GHG offset projects applicable to all project types and establishes criteria for validating, measuring and monitoring the projects. Validation and verification of the projects has to take place in conformance with the requirements in ISO14064 III and to follow some additional VCS

⁹ UK-based coalition on a low-carbon economy, www.theclimategroup.org

requirements. The validation and verification has to be performed by verifiers accredited for an approved GHG programme or for ISO 14065.

The VCS has been criticized by various NGOs for being too soft in its requirements and for how it sets the additionality criteria. However, the VCS has some unique positive features, e.g. it makes special considerations for small projects to help reduce transaction costs and encourages local emission reduction activities. Also, it functions with a single registry to track the credits and ensure their authenticity. The VCS association expects that some 50–150 projects creating between 10–20 million tonnes of CO₂e will have been approved under the VCS Programme by the end of 2008¹⁰.

The case of Switzerland: Major Voluntary Schemes

Switzerland took on a commitment under the Kyoto Protocol to reduce emissions of GHG gases by 8%. The CO₂ law, which came into effect May 2000, is the chief element of Switzerland's climate politics. The desired reduction should be achieved by a set of different measures - mainly based on "voluntary initiatives", which are accorded high priority in the CO₂ law - and on on-going activities, such as e.g. target agreements by companies with the Energy Agency for Industry (EnAW) on energy efficiency and CO₂ reductions with the private sector; or an increase in the market share of Minergie buildings (Minergie is a energy standard for new and refurbished buildings). In addition, a disincentive levy on fossil energy (CO₂ levy) of CHF12/tCO₂ has been introduced by January 1st 2008. Following main voluntary measures are given high priority in achieving Swiss GHG gas emission reduction targets:

Climate Cent emission reduction projects

The Climate Cent is a target agreement by the Department of the Environment, Transport, Energy and Communications and the Climate Cent Foundation, an initiative of the Swiss economy. The Climate Cent was introduced in October 2005. It is a charge levied on all petrol and diesel imports at a rate of 1.5 cents/l. The Foundation has committed itself to reducing 9mio tonnes of CO₂ over the period 2008 to 2012 - of which at least total 1mio tonnes within Switzerland and the rest abroad through purchase of emission reduction certificates.

The Climate Cent Foundation provides assistance to CO₂ emission reduction activities in Switzerland. Project proponents who benefit from this assistance commit themselves to transfer the effective emission reductions in return of a disbursement to the Foundation. The actual emission reduction data of a given project has to be gathered systematically according to the Foundation's procedural requirements which are based on Joint Implementation. Account has to be given in a monitoring report. The validation of the project is undertaken by the Foundation while the verification of the monitoring report has to be conducted by an accredited third party (UNFCCC or ISO14065 recognition). In the first year of the commitment period 2008-2012 a number of 36 projects got verified. More than a hundred projects are expected for 2009.

Unilateral emission reduction projects

October 2nd 2008 the regulations for emission reduction projects to be conducted in Switzerland have been published by the Swiss Federal Office of the Environment and the Federal Office for Energy. This type of emission reduction project has been elaborated to compensate for future gas power stations which will have to prove domestic reduction of emissions. Eligible projects are to be located in the following areas: energy efficiency; renewable energies; fuel switch; transportation; as well as projects which reduce methane, nitric oxide or synthetic gases.

As to meet the requirements projects have to reduce emissions and to generate supplementary investment. The first baselines and monitoring methodologies have been drawn up for specific project

¹⁰ www.global-warming.com/voluntary-carbon-standard.html

types and will be complemented as proposals for new projects are received. Without international participation, the national projects are not categorized joint implementation projects and do not yield Kyoto emission allowances. They generate vouchers which can be sold to operators of gas power plants or traded on the domestic market. Validators and verifiers with UNFCCC accreditation in the respective sector are automatically recognised; other institutions are given the opportunity to act as validators or verifiers as long as they can proof the required competence and resource with the Federal Offices listed above.

A considerable number of **other national voluntary schemes** have been developed at private initiative. They concern e.g. GHG inventory systems for organizations or events; carbon footprints for individuals, enterprises or products; and carbon neutral products and services. Some of them have already taken root; others have an uncertain future. One of the latest and most interesting recent development concerns a label for organizational quantification of GHG gases:

Swiss Climate CO₂e Label

CO₂e stands for CO₂ equivalent. The Swiss Climate CO₂e Label has been developed by Swiss Climate Invest SCI, a company which invests in emission reduction projects, in cooperation with SQS. The label guidelines which meet the requirements of ISO 14064 I as well as the principles of the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard give instructions on how to raise a GHG inventory.

The label can be granted at 3 different levels, each one valid for 12 months except for the first verification period, which grants 18 months: Level 1 – *balanced* – requires the compilation of an ISO 14064 I compliant inventory as well as a declaration of intent on an integrated company climate policy by the management. Level 2 – *optimized* – asks for the level 1 criteria and requires in addition capital investments in a pool. The pool which gets administered by SCI invests in emission reduction projects for future offsetting. A company that invests through this pool and consistently reduces its GHG emissions can reach its carbon neutrality without additional investments due to trading activities and reinvestment of company deposits by SCI. Level 3 – *neutral* - asks for the level 1 criteria and total carbon neutrality of its key operations; whereas the carbon offsets have to fulfil ISO 14064 II and must already have been issued, i.e. represent realized emission reductions. Transactions of allowances have to take place with an independent registry; and redundantly with SCI's own data base. Verification has to be performed by a certification body accredited according to ISO 14065.

(Climate) services and cooperation within IQNet

Neither the current priority of climate warming in political discourse nor the environmental urgency to prevent continued warming, but as we all know, most of all business calculations drive change and can make companies get serious about their emissions. As we have seen, voluntary schemes are on the increase and will continue to massively gain in importance. A large share of the schemes can be designated as absolutely voluntary initiatives; while others are linked to national regulatory frameworks. The two can represent very interesting economic incentives for enterprises, since they are likely to deliver positive returns and/or reduce risks. Companies at this stage should reflect on the timeliness of quantifying their GHG emissions and on whether they could invest in emission reduction projects. Certification bodies should reflect on the actions required to support climate related processes at company level. The competence and worldwide network of IQNet certification bodies can offer substantive support services for companies which want to take the lead in climate related activities.

IQNet is an expanding international Network of 36 partner certification bodies incorporating over 200 subsidiaries worldwide. One third of all management system certifications issued globally are estimated

to have been delivered through IQNet partners (over 320,000 certificates in total); approximately 2/3 of our IQNet partners hold the number one market position in their geographical region.

IQNet's mission is to support clients to improve enterprise quality aimed at sustainable success. Strong partners, an effective worldwide cooperation and the provision of value added assessment and verification services are the respective strengths. The IQNet business model is offering to clients many opportunities and advantages to get cost effective and credible assessment and verification services on a global basis. With regard to climate change services 8 IQNet partners so far have been accredited or have nearly reached accreditation for CDM and/or JI services. These are:

- AENOR, Spain, www.aenor.es
- ICONTEC, Columbia, www.icontec.org.co
- KFO, Korea, www.kfq.or.kr
- JOA, Japan, www.jqa.jp
- CISQ / RINA, Italy, www.cisq.com, www.rina.it
- SIRIM, Malaysia, www.sirim.my
- CQC, China, www.cqc.com.cn
- SQS, Switzerland, www.sqs.ch

The majority of the 28 remaining IQNet members are involved in validation and verification of national or regional programmes on the quantification of GHG emissions or project-based emission reductions, e.g. verification of EU ETS.

All IQNet Partners are used to cooperate for international clients and respective projects. They have e.g. access to the IQNet global auditor pool of specialist auditors and verifiers for the management of international projects. Partners also recognize each other's audit and assessment results. The IQNet mutual recognition concept helps clients to avoid audit duplication where valid conformity results can be used.

Partners also strongly cooperate in the field of innovative specialist products. The IQNet Leader-Adopter model allows partners to implement and offer to their clients innovative services under the technical leadership of another partner. The fast developing market of voluntary carbon reduction verification services will enhance such bilateral cooperation and spread out successful models within the IQNet client community.

Furthermore IQNet partners commit themselves to implement commonly accredited or recognized products (CARS). This strategic cooperation has resulted in the introduction of assessment, verification and certification services which are directly offered through IQNet Ltd, a certification division of IQNet (www.iqnet-ltd.com). In the field of climate change related services the focus lies with validation and verification based on ISO 14064, carbon footprints, energy efficiency assessments, sustainable constructions, climate neutral labels etc.

SQS Climate Services

With more than 20 years of experience in providing environmental services since its foundation in 1983, SQS launched its first climate activities in 2005 and established its competence centre on climate issues in 2006. On-going accreditations for JI (indicative letter received), CDM and ISO 14065.

At present SQS offers following Climate Services:

- JI and CDM project validation and verification
- ISO 14064 validation and verification at project and organizational level
- Validation and verification of Swiss national schemes
- as well as validation and verification of a number of voluntary climate initiatives, e.g. voluntary carbon standard VCS

For international project validation and verification SQS, if necessary, draws from the expertise of the respective local IQNet member.

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