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atmosfair

Focus on project financing

Financing models for renewable energy development

Annual Report 2011

Standards

atmosfair was created in 2004 in a research project of the Federal Ministry for the Environment. In the framework of this project, principled standards were developed for voluntary CO_2 compensation.

Federal Ministry for the Environment, Nature Conservati and Nuclear Safety

Die atmosfair-Standards wirken als Messlatte für den inzwischen entstandenen Markt der CO_2-Kompensation. atmosfair ist vielfacher Testsieger internationaler Vergleichsstudien.

atmosfair solar project in India

	Standards	Implementation
Approach 	■ Compensation is only the 2nd option; direct CO_2 avoidance is more effective ■ Climate protection is more important than the maximization of donation revenues ■ Raising of public awareness	■ Cooperation with business travel specialists for travel optimization, including the use of video conferences ■ No cooperation with partners who do not comply with atmosfair standards (e.g. CO_2 calculation), even though atmosfair would generate high revenues ■ No compensation for activities for which there are better solutions (e.g. automobile driving, power consumption) ■ Complete information concerning donors, independence from industry
Climate protection projects 	■ Permanent CO_2 reduction ■ Contribution to North-South technology transfer ■ Additional benefits for local population ■ Contribution to local environmental protection	■ 100 % CDM + Gold Standard CO_2-offset projects ■ Calculation and monitoring of CO_2 reduction according to UN standards ■ Qualified and UN-approved assessors (e.g. TÜV) who must accept liability ■ Documentation via Web site of the Climate Change Secretariat of the United Nations ■ No afforestation projects, only renewable energy and energy efficiency ■ Formal approval of the government of the host country
CO_2 calculation 	■ Complete ■ Scientific ■ Documented ■ Reviewed	■ Inclusion of all climate impacts of air travel (e.g. through contrails, ozone formation, etc.) in accordance with the latest findings of the scientific community (IPCC); this results in a significant increase in the calculated climate footprint ■ Emissions calculator checked by German Federal Environment Agency ■ All data sources and methods documented on the atmosfair website
Organization & finances 	■ Non-profit, registered charity ■ Independent ■ Efficient ■ Transparent ■ Responsible	■ Low administrative costs: Over 90% of revenues from donations are invested in the climate protection projects in developing countries ■ Revenues and their use are monitored by the tax authorities ■ Publication of the annual financial statements via the German Commercial Register ■ Advisory Board of high-profile environmental experts from the Federal Ministry for the Environment, non-governmental organizations, and scientific community

TÜV UNFCCC The Gold Standard Premium quality carbon credits

Umwelt Bundes Amt Für Mensch und Umwelt IPCC WMO UNEP

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Preface

Dear readers,

Dietrich Brockhagen, atmosfair

"The door is rapidly closing." This is how Fatih Birol, chief economist at the International Energy Agency (IEA) expressed it at the Climate Conference 2011 in Durban. If the plans to build additional coal power stations, especially in developing countries, are implemented as currently outlined, then the 2° C climate goal will already be unachievable by 2017 since economists assume that the coal power stations built by that time will operate for many years to come.

I don't know how you feel about it, but as someone who already cared about these issues at the Kyoto Conference in 1997, I am overcome with the feeling that a world climate change agreement is growing more remote as time progresses . The climate conference in Durban in December 2011 was certainly not the breakthrough that we so desperately need. Meanwhile, we are already at a point where climate policies are calculated in years instead of decades.

The IEA, which as the energy policy organisation of the world's largest consumers of energy doesn't exactly have the reputation of being a radical, green organisation, put it simply for the delegates in Durban: "Don't wait for a global deal. Act now. You can and should implement robust policies that will give your citizens affordable, reliable access to energy in a sustainable way."

atmosfair can only join the IEA in this appeal. Even as a single individual, you have the power to bring on a turning point for the climate independent of a global deal. Today you can already demand CO_2-free electricity, gas with a growing proportion of renewable energy and low-energy mobility. And your climate protection contribution to atmosfair helps, too!

There have been a lot of changes at atmosfair: not only was 2011 our most successful year in numbers yet, but we were able to help launch many new projects thanks to your support.

Together with the Organisation of German Travel Management (VDR), we have created a new worldwide standard for corporations to account for CO_2emissions created by business travel. The standard helps identify potential ways to reduce CO_2 emissions and has already been used by many companies, from small businesses to multinational corporations.

At the ITB fair in Berlin, atmosfair was awarded the Grüne Palme Award for its engagement in climate protection. And not least, football also reigned supreme at atmosfair – for the 2011 Women's World Cup, atmosfair managed compensation for the flights of participating teams.

Thank you to all of our supporters and partners,

Dr. Dietrich Brockhagen
Managing director of atmosfair gGmbH

How your contributions become project

Focus on project financing

The hydropower station near Esperanza (Honduras) has produced clean electricty since 2005 thanks to the support of atmosfair.

At approximately four million Euros, atmosfair collected more donations in 2011 than ever before. What happens with these donations? atmosfair manages climate protection projects using different models that differ by the roles and implementation responsibilities divided between atmosfair and its partners. This leads to different opportunities and risks on both sides. Here, we will introduce you to these models.

atmosfair's work is financed through voluntary climate protection contributions. Thus we have an obligation to our donors: the funds should be used effectively. People in developing countries and climate protection should profit as much as possible from this money. We are committed to the following principles:

- Fulfilling CO_2 compensation
- Innovation and technology use that helps people directly
- Contribution to economic development (jobs, promoting industry) and to local climate protection
- Transparency in use of funds and low administration costs

Contract projects versus construction projects

How do climate protection contributions translate into real climate protection? atmosfair basically differentiates between two project models: contract projects and construction projects. In contract projects, such as the hydropower station in Honduras, atmosfair supports its partner through payments for proven CO_2 reduction. The responsibility for project implementation lies primarily with the partner. This is not the case for construction projects such as the stove project in Nigeria. Here, atmosfair shares responsibility for project implementation with a local partner. atmosfair invests in the production, logistics and operation of the

Added value: In Nigeria, people do not have to cut down as much wood thanks to new efficient stoves. This saves money and protects the soil from erosion.

Added value: In Honduras, reforestation is an additional advantage of the program alongside bringing electricty to the region

stoves and thus bears the entire financial burden. atmosfair has run both projects for years and has invested around one million Euros for each between 2007 and 2011.

The graphic on pages 8 and 9 shows how funds are allocated in both projects.

- On average, atmosfair uses 9% of all donations for fixed costs such as office rent, customer service and public relations.

- Nearly 4% of the costs in both projects are spent on external auditors. Employees, from TÜV for example, go through atmosfair's project report critically, both during the approval phase at the project's start and at the yearly project verifications (see the graphic on page 21). These employees work on-site and audit all of the details, for example, the local inhabitants' assent, the functionality of the station or how many stoves are actually used, how many jobs were created – ultimately, they assess the amount of CO_2 saved and the benefits for the local people. The process is elaborate, but required for both CDM and Gold Standard certification. It also forces project operators to carefully monitor the project's success.

- The project audit also creates internal costs for atmosfair. atmosfair uses 1.7% of contributions for the Honduras project and 3.1% of contributions for the Nigeria project for its own personnel, UN administration fees for project approval (registration) and the yearly audit. The project must be appropriately documented according to the CDM criteria and be attended to in the yearly verification process.

Both of these tasks are labour-intensive. In Nigeria, atmosfair itself is responsible for all of the steps; in contrast, atmosfair only took on some parts of the work in Honduras since the project was already registered with the UN Climate Secretariat when the contract was concluded. Compared to other CDM service providers, atmosfair's work costs are extremely low. One reason for this is that the level of expertise within atmosfair itself is so high that atmosfair can offer CDM services to third parties, e.g., as it currently does for the UN World Food Programme in Ethiopia. These revenues mostly cover internal auditing costs.

Example: Nigeria – direct on-site support

- Unlike in Honduras, atmosfair needs personnel to support local partners in Nigeria, for example for logistics from customs to the storehouse to the partner, as well as for setting up an operations system and improving the stove technology. Additionally, the partner received direct help for things like the technical setup (transport vehicle, supplying the offices in Kaduna with solar energy). Nearly 5% of revenues were used for these purposes.

When all of these payments are deducted, nearly 78% of the climate protection contribution is used to purchase stoves for Nigerian households. With this money, atmosfair financed the purchase of 11,000 efficient firewood stoves that directly benefit these households. When we add the work from atmosfair personnel on-site and the support of the Nigerian partner, the rate is 84%; this is a great number. The magazine

Focus on project financing

Finanztest determined that for organisations that are active on-site, such as in sponsoring children in the context of regional development projects, 65% is already a good rate.

Most of the money in the Nigeria project is spent at the beginning of the project. Since the efficient stoves use 80% less firewood than traditional stoves, a considerable amount of CO_2 is saved. These savings accumulate over time and must be regularly confirmed by TÜV and the UN Climate Secretariat. The first certification for 2009/2010 was already a success.

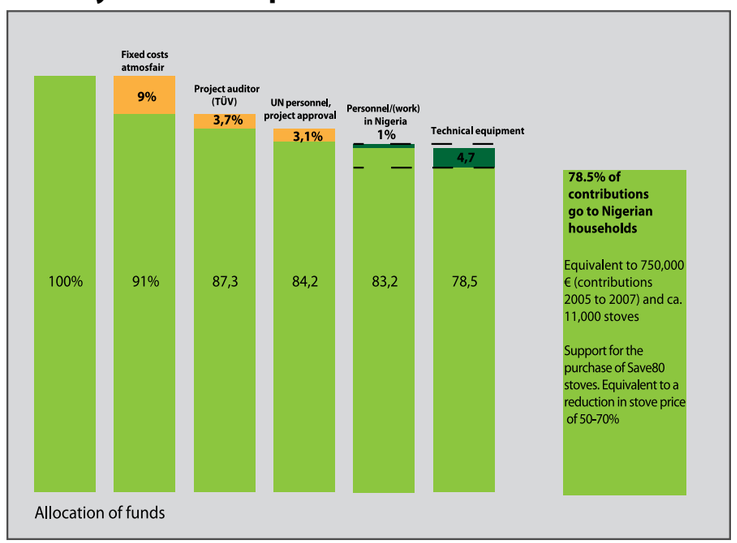
Example: Honduras – green energy made profitable

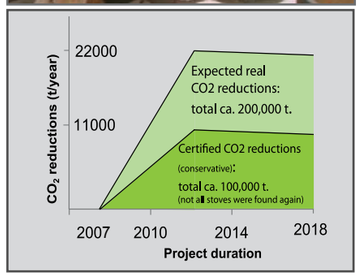
As a hydropower station, our partner in Honduras did not need any direct help. In fact, the station received more than 85% of the atmosfair climate protection contributions, mostly as advance payments. The support comes in the form of additional compensation for green electricity fed into the grid and the CO_2 savings that result from it. The expected additional revenue allowed our partner to make requisite investments (for turbines, etc.). However, atmosfair has also acted beyond this. The project was at risk during the financial crisis of 2009 because our partner had problems with liquidity, so atmosfair made advance payments for future CO_2 reductions. Since then, 95% of the CO_2 savings paid for have been rendered.

In Honduras, CO_2 savings have a fixed price per tonne that atmosfair and its partner have agreed upon and with which both make calculations. In contrast, atmosfair financed the whole project in Nigeria and with that, all CO_2 savings that could be accounted for over the 10-year period as well. Because of this, the costs per tonne of CO2 were initially high, but with the successful progression of the project, they have been sinking dramatically under the costs in the Honduras project.

Moreover, the actual climate benefits in Nigeria are greater than the demonstrable benefits since the TÜV auditors find fewer stoves during their visits than are actually in use. Many Nigerians are shy when auditors come because they fear it is forbidden, etc. Even if such a project did deliver

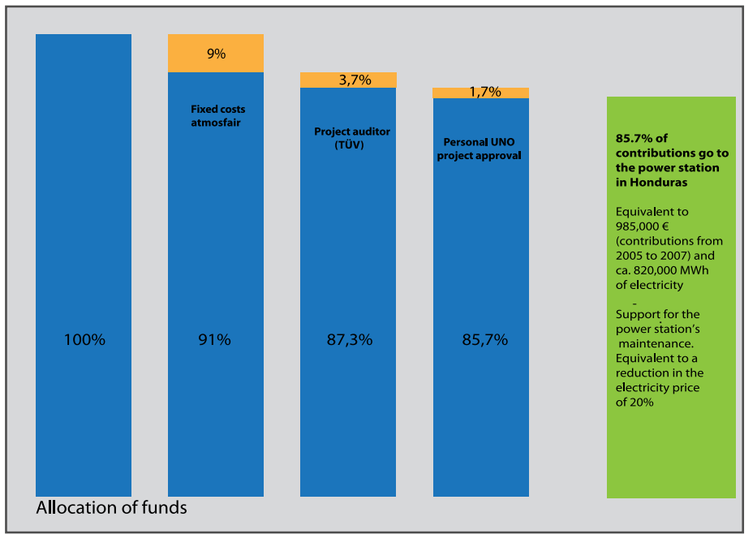
Use of your climate protection contributions since 2007 in Honduras

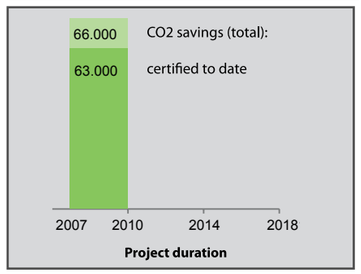




Of the used climate protection contributions (blue or green bars), administrative and auditing costs have declined (orange) as well as costs in the countries themselves (dark green). The light green bar at far right shows the amount of the contributions that reach the people in the project directly.

Verwendung Ihrer Klimaschutzbeiträge seit 2007 in Honduras





fewer CO_2 certificates at some point, the invested climate protection contributions were not lost: in any case, we supplied people with stoves that help make their lives easier.

The atmosfair project mix

With all of these advantages, the model of construction projects is attractive, but means more work for atmosfair. Therefore, few CO_2 compensation providers have such projects that they run themselves. Construction projects come with substantial financial risk. For this reason, atmosfair has a mix with contract projects that allow for the promotion of important renewable technologies.

Typical atmosfair construction projects are the stove projects in Kenya, Rwanda, Lesotho, Cameroon and India as well as the household biogas project in Kenya. The other atmosfair projects are contract projects, for which atmosfair mostly manages the CDM process (as in Honduras) and makes other contributions. In Bolivia, for example, atmosfair shared a technology from India and thus made a huge contribution to the project's realisation.

With this type of work, one's own competence improves. The biggest international success thus far: the Nigeria project was the first CDM project with stoves in Africa that was approved for unlimited expansion.

The Amazon basin extends far into northern Bolivia. The area is sparsely populated, and hardly any infrastructure exists there. In the villages around the border city Cobija, many people make a living from Brazil nuts that they gather in the rainforest. The nuts grow wild, and their use is a powerful reason for the local population to preserve the rainforest. After being gathered, the nuts are shelled, and the majority are packed for exportation. Thousands of tonnes of nutshells with an excellent energy value are left behind. The Brazil nut hunter Tahuamanu had the idea to use these woody remains to produce electricity. However, he lacked the technology to successfully implement the project.

Electricity from Brazil nut shells

In the power station, Brazil nut shells are transformed into gas.]

Experiences from a project in Africa

In 2009, the company made contact with atmosfair. atmosfair had already worked on a similar project in Burkina Faso in Africa; the power station there was based on a wood gasifier technology from the Indian manufacturer Ankur, so atmosfair introduced the Bolivians to this Indian technology. A Bolivian-Indian joint venture was founded, and in March of 2012, the power station was finally completed. atmosfair pledged compensation for electricity fed into the grid for the expected CO_2 savings, and this pledge allows the station to operate economically.

A project with a pioneering role

atmosfair is supporting a project that has a pioneering role for the energy supply in the entire Amazon region. Until now, electricity there was generated almost exclusively by diesel generators and was distributed by countless isolated, separate networks. Water is readily available, but the land is flat. Huge reservoirs would be necessary to gain electricity from hydropower. Biomass has the greatest potential for renewable energy. Now, the 700 kW power station will feed so much green electricity into the local network that more than one million litres of diesel can be saved per year. That is equal to 4,000 tonnes of CO_2 in a year

The project is on the verge of approval under the Gold Standard microscale. Now it remains to be seen whether the technology can deliver what it promises. Since this is the one of the first projects of this kind worldwide, this is not yet clear!

Timber is the preferred fuel for cooking in Lesotho. However, only a few areas are wooded, too few for enough wood to grow back. In the last 25 years, two-thirds of the bush forests have been destroyed. The introduction and distribution of Save80 efficient stove sets has helped to reduce clearcutting as well as the soil erosion associated with it. This innovation has another advantage: families spend much less money on firewood and produce less smoke when cooking, which especially made women and children sick. The stove use has a global effect: each one saves about 2.5 tonnes of CO_2 per year.

As of mid-2011, atmosfair has offered its partner Solar Lights, a local business, Save80 cooking systems in the southern African country. Under the leadership of German-born Michael Hönes, Solar Lights has already been able to sell over 3,000 efficient stoves. By the beginning of 2013 10,000 traditional firesides will be replaced with firewood stoves.

At a glance…

Technology:	Gasification (pyrolysis) of woody harvest remains
Local environment:	Replacement of fossil fuels, additional fertiliser
Additional benefits:	Added value in a rural area, jobs in the agriculture sector, transport and technological consultation for the stations
Project partners:	Tahuamanu, Brazil nut exporter

…and in depth:

https://www.atmosfair.de/index.php?id=653

Lesotho: Climate protection up through logistics

In Lesotho, South Africa, efficient stoves have been used since mid-2011. Beside the stove: a pot with boiling water can be placed in a black cooking box made of plastic so that it can cook for another 20 minutes without using any additional firewood.

Deutsche Post DHL

GOGREEN
Klima schützen
mit Deutsche Post DHL

efficient stoves. By the beginning of 2013 10,000 traditional firesides will be replaced with firewood stoves

A project with a pioneering role

Deutsche Post DHL finances this project. The CO_2 savings are used for the GOGREEN shipments with which Deutsche Post DHL customers can send their parcels. Deutsche Post DHL also plays an important role in the project logistics: it transports the stove sets from Germany to Lesotho.

New investment model

In this project, DHL is the investor, and atmosfair runs the project on behalf of DHL. DHL receives the CO_2certificates (voluntary climate protection contributions from atmosfair users are not used). On the contrary, atmosfair receives money for its work as compensation that lowers administrative costs as well as a portion of the CO_2 certificates

It is already the fourth atmosfair firewood stove project in Africa: after Nigeria, Lesotho and Rwanda, atmosfair has now begun the operation of an efficient stove project in Cameroon. The variety of landscapes and biological diversity in Cameroon is unique. However, severe deforestation is threatening these treasures. According to an FAO study, the country is losing about 200,000 hectares of forest area yearly. In light of population growth, the demand for firewood will continue to rise. The mangrove forests along the coast are especially threatened by development..

The efficient stoves will help the population in the Southwest and Littoral regions to reduce their wood consumption. atmosfair partner Pro Climate International is located there and has a great deal of project experience in the country.

At a glance…

Technology:	Efficient firewood stoves save 80% of energy
Local environment:	Less smoke, prevents deforestation and erosion
Additional benefits:	: Lower costs for household energy, support for local women's initiatives
Project partners:	Solar Lights
Project financer:	Deutsche Post DHL

…and in depth:

https://www.atmosfair.de/projekte1/projekte00/lesotho-effiziente-brennholzkocher/

Poster for an Envirofit stove sales show by atmosfair partner Pro Climate International.

Inhabitants and users are being consulted

In the summer of 2011, the city of Buea hosted a local stakeholder conference. Potential users, NGOs and representatives of regional institutions discussed the project as an important source of support in the fight against poverty and climate change. Besides this meeting, atmosfair also significantly supported a study on wood consumption. At the project size of 3,000 to a maximum of 6,000 stoves planned at present, approval according to the UN's CDM procedures would require too many resources. For this reason, atmosfair developed this project according to the simpler Gold Standard that does not involve the UN and liable auditors. This decision was approved by the atmosfair Advisory Board, which ensures that such exceptions are only made for the smallest of projects.

atmosfair is responsible for the Gold Standard supervision and project management. Pro Climate International manages the sale, marketing and monitoring. atmosfair has taken on the pre-financing together with the stove manufacturer Envirofit. In this role, atmosfair was able to reduce the cost of a stove for local users from 25 to 13 US dollars through CO_2 compensation.

At a glance…

Total savings:	5,000 tonnes of CO_2 per year
Local environment:	Less smoke, reduced deforestation
Technology transfer:	Efficient firewood stoves
Additional benefits:	Lower costs for firewood and less time spent gathering firewood
Project partners:	Pro Climate International

…and in depth:

https://www.atmosfair.de/projekte1/projekte00/kamerun-effiziente-brennholzkocher

Local forces built the small biogas units.

Kenya: Small biogas units

In Kenya, biomass is the most important energy source for the population. In the Nairobi River Basin region west of Nairobi, atmosfair is supporting the construction of small biogas units. Here thousands of dairy farmers live, most of whom own two to three animals. They can operate the biogas units using cow dung or other agricultural waste. This replaces up to 10 kg of firewood daily that families previously needed to cook. In addition to the biogas, a nutrient-rich liquid manure is produced that farmers can use to fertilise their fields.

atmosfair subsides the subsistence farmers with 100 Euros per unit. Through cooperation with a microfinance bank, the users can pay off the unit costs in instalments. Both of these measures have increased the demand for biogas. Project partner SES has already realised more than 120 stations.

In 2011 auditors from TÜV Nord were on-site in order to audit the project. They controlled how much CO_2 is really being saved, whether the materials are of sufficient quality so that they can really last for 20 years and whether the crafspeople are sufficiently qualified. Their report is required for the project registration and recognition by the UN Climate Secretariat.

The farmers receive additional income through the power

India: Electricity from crop residues

For power station operator Anand Chopra of Indian project partner KPTL, 2011 was a successful year: the production of electricity from mustard crop residues ran without serious interruptions, and the losses from the production standstill in 2010 due to drought could be offset. There was also progress made in using the waste product fly ash: in contrast to traditional brick production, it merely dries in the sun and thus saves energy. Meanwhile, KPTL has applied to the Indian authorities for its approval as a construction material.

During the summer of 2011, atmosfair was on-site in order to oversee the audit performed by TÜV Süd. The power station saved almost 70,000 tonnes of CO_2 in two years.

Deutsche Welle filmed on-site

Deutsche Welle made a film about the green power station in the middle of rural Rajasthan. It can be seen on atmosfair.de or on the Deutsche Welle TV website:

www.dw.de/dw/article/0,,15887560,00.html.

Additional projects

Biomass to cool air

atmosfair employee Robert Müller with local partners.

Direct solutions for climate protection – this is what atmosfair offers its numerous partners in the tourism branch. This also includes environmentally friendly forms of air conditioning. After flying, hotel air conditioning is one of the biggest sources of CO_2 in the industry. While solar cooling cannot be used on a large scale for technical and financial reasons, the use of biomass offers interesting possibilities. In Sri Lanka, atmosfair has already had a good experience with biomass boilers. This technology should now be developed further and complemented with a so-called absorption refrigerator.

This machine makes it possible to create cool air from warm water or steam. In combination with biomass boilers, it provides an especially elegant and climate-friendly solution: in such a construction, a single boiler can deliver a hotel with warm water for the laundry service as well as for the air conditioning with about 80% of the total energy use. atmosfair's calculations show that as long as renewable or residual biomass is available, the concept is also less expensive in the medium-term than conventional air conditioners. At this time, atmosfair is searching for partners from the hotel industry that are interested in setting up a pilot project.

India: Locally-sourced stoves

In India, the efficient stoves have also been well-received

Deforestation, soil erosion and floods – in the Indian state of Madhya Pradesh, the high demand for firewood also has fatal consequences for nature. At the same time, providing biomass to poor households is expensive and time-consuming to boot.

An efficient firewood stove that is tailored to the needs of the rural population should remedy the situation. atmosfair partner Parikrama Energy Services (PES) developed such a stove over the course of three years. PES has strong roots in the region and is working closely with representatives from the village communities around the city of Jabalpur. Thanks to financial support from atmosfair, PES can now offer the stoves for a substantially subsidised price. They only require half of the firewood formerly required.

The validation of the project by the Gold Standard has already begun. The project was introduced during the the official stakeholder meeting, i.e., the meeting of all affected and involved, in September of 2011 to the local population and was well-received. PES has already purchased around 500 stoves. Step by step, the project will be expanded to several thousand households.

Indonesia: Compost from waste

Sustainable waste management is now also possible as a UN climate project

There is no functioning rubish collection in poor urban areas in Indonesia. People must dispose of their waste at random in the middle of residential areas. Access to enormous existing dumps is no real alternative from a climate perspective because they are not being managed. On this issue, atmosfair is supporting its partner organisation BORDA, which is introducing sustainable waste management at the neighborhood level in self-governing composting and recycling centres.

Until now it was difficult to implement such projects as UN climate protection projects because according to the UN methods, the methane emissions from individual illegal waste dumps would have to be measured in order to quantify the CO_2 savings – an impossible undertaking. atmosfair has succeeded in obtaining approval of an addition to the existing UN methods. Now it is permitted to apply the prevented access to large dumps in the calculataiton of emissions reductions.

In this way, atmosfair has opened a door for similar projects under the UN CDM since only the addition makes it possible for projects to contribute to sustainable and climate-friendly development, including those that do not create a great deal of emissions such as the dumps.

Rwanda: Efficient stoves

Seit 2001 gibt es auch in Zentralafrika effiziente Kocher.

In 2011, atmosfair began its first project in Rwanda. As in other African countries, efficient cooking systems will be used in order to reduce wood consumption and the detrimental climate effect caused by the traditional way of cooking. Rwanda is very densely populated. On average, more than 390 people per square kilometre live there – this is more than in any other African country.

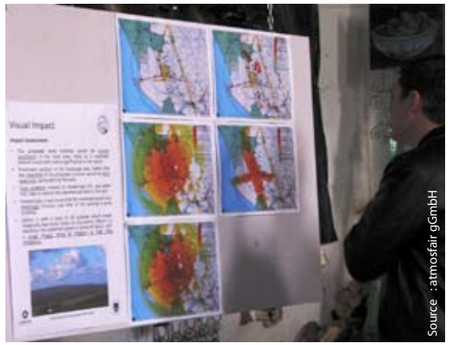
The need for wood cannot be sustainably satisfied. In addition, stoves are also fired up with charcoal, which is very resource-intensive and has an especially negative impact on the climate. 9 kg of wood are required in order to produce 1 kg of charcoal. Thanks to the efficient stoves, the intermediate step to charcoal production will be eliminated and will save a great deal of CO_2.

The small business ENEDOM, located in Kigali, is responsible for the on-site implementation. ENEDOM is educating the users so that the stoves' enormous saving potential can actually be achieved. 500 stoves have already been delivered to Rwanda as part of a pilot phase. At the same time, work is underway to achieve UN approval as an official climate protection project. Registration as a Gold Standard project is planned.

Workers in Sri Lanka laying water line pipes.

India: Small biogas units

Since 2006, thousands of biogas units have been in operation and reducing the clearing of forested areas. Each year 19,000 tonnes of CO_2 are saved. Cow dung ferments in the clay brick repositories. Everyday life has become easier for families: they no longer need to collect wood, and the houses are free from smoke. This Gold Standard project was created and is now run by Women for Sustainable Development and ADATS. Both NGOs have a great deal of experience with development projects in the region. In 2011 ADATS presented a video on the construction of the biogas units that can be viewed on the atmosfair website.



Südafrika: Infotafeln auf einer Stakeholderkonferenz..

Sri Lanka: Small hydropower station

In Sri Lanka atmosfair is supporting the construction of a small hydropower station. For this, special plastic pipes are being employed that have hitherto never been used in Sri Lanka. They are very light and save space so that the pressure line can also be laid in impassable areas without clearing large paths. In early 2011 the stakeholder meetings with the local popluation in Koslanda, Uva Province took place. The small hydropower station should begin operation in mid-2012 and supply 1,500 households with green energy.

The small biogas units are run on cow dung

South Africa: Wind farm

The atmosfair project on the Cape in South Africa has made great headway. Together with the Oelsner Group located there, atmosfair has planned the construction of the Kerrifontein wind project. 14 turbines are planned. The public hearing took place in July of 2011 as delineated by the Gold Standard. Since then, the project has officially entered the register. The environmental impact assessment financed by atmosfair has also been completed. With this, the project fulfills a further requirement for receiving a feed-in tariff for the sale of the electricity produced. The process includes an official application in an application procedcure. Construction should commence by the end of 2012.

The results and actions of the Heinrich Mann School in Neukölln in Berlin were diverse.

Atmosfair does not credit itself with CO_2 savings from projects in Germany because these are already included in the Kyoto system and counted by Germany in its CO_2 inventory.

Schools as energy-saving champions

Since 2009 atmosfair has supported initiatives towards effective and innovative climate protection in the form of energy-saving championships for schools. In 2011 atmosfair began sponsoring the Heinrich Mann School in Berlin.

Many participated: classroom communities and elective classes, parents, the director, the maintenance supervisor and the energy and appraiser offices. Together, they searched for possible ways to reduce heat consumption, participated in the photo contest "Zeig Dein Bild vom Klima!" and initiated a collection of old mobile phones and a climate breakfast.
atmosfair supports the school with 3,000 Euros. The school would like to invest the money in the construction of a small wind turbine. Besides this, it will establish a room that can supply its own energy, which will come entirely from renewable energy that is generated on-site. With this, atmosfair is supporting the environmental awareness education of children and youth and is contributing to the use of environmentally friendly technologies in another school.

The competition is a campaign of "Klima sucht Schutz" and the German Federal Ministry for the Environment. The project sponsor is CO2online. For more information see www.energiesparmeister.de.

Climate education at schools: the fifty-fifty project

Energy saving thus starts out very small: with the fifty-fifty initiative, pupils search for possible ways to save energy in everyday life. Schools can save money with the campaign: half of the energy costs saved by the school authorities are paid directly to the schools.
On average, schools reduce their heat consumption by 80 MWh and their electricity consumption by 8,000 kWh. The yearly result is 25 tonnes of CO_2 saved and 5,000 Euros more in the school's coffer!

atmosfair once again supported the fifty-fifty campaign financially in 2011. By now, a total of 18 schools benefit from the support.

Overview of atmosfair climate protection projects

CDM-Gold Standard Projects

Thailand: Biogas from sewage water

- Facility in operation
- Gold Standard registration completed
- First provisional CDM Gold Standard verification completed

Nigeria: Efficient firewood stoves

- Over 10,000 stoves already sold
- First CDM Gold Standard verification successful, CO2 reduction confirmed by the UN

Nicaragua: Wind power

- Facility in operation
- Gold Standard registration completed
- First provisional CDM Gold Standard verification completed

Lesotho: Efficient firewood stoves

- Stove sales and use in progress
- Project financed by Deutsche Post DHL's GOGREEN program
- Project plan in the approval phase

Honduras: Small hydropower station

- Facility in operation
- Gold Standard registration completed
- Fourth periodical CDM Gold Standard verification in preparation

Rwanda: Efficient firewood stoves

- Contract with local partner concluded
- Local stakeholder consultation took place
- Project plan in the approval phase

India:Electricity from crop residues

- Facility in operation
- CDM Gold Standard registration completed
- First periodical CDM Gold Standard
- verification completed

Kenya: Biogas units

- Technology transferred by atmosfair, contract with the project operator concluded
- Units in operation
- CDM Gold Standard approval obtained, registration in progress

India: Biogas unit

- 5,500 units in operation
- CDM Gold Standard registration complete
- Second CDM Gold Standard verification complete

South Africa: Wind power

- Contract with local partner concluded
- Environmental impact assessment commissioned
- Second CDM Gold Standard registration in preparation

Gold Standard VER microscale projects

atmosfair renders at least 90% of its CO_2 compensation with involved CDM Gold Standard projects. Besides these, atmosfair also develops Gold Standard microscale projects. These small projects are meant to transfer new technologies to countries in which the conditions for larger projects cannot yet be met.

Bolivia: Electricity from Brazil nut shells

- Technology transferred by atmosfair, contract with project operator concluded
- Facility in operation
- Gold Standard validation completed, registration impending

India: Efficient firewood stoves

- Contract between atmosfair and the project operator concluded
- 500 efficient stoves produced locally and sold
- Project plan in the approval phase

Cameroon: Efficient firewood stoves

- Contract between atmosfair and the project operator concluded
- 500 efficient stoves produced and sold
- Project plan in the approval phase

Sri Lanka: Small hydropower station

- Contract between atmosfair and the project operator concluded
- Facility under construction
- Local stakeholder meeting took place successfully

Legend

Project in operation phase | Project in approval phase | Project in planning phase

The terms used in the project descriptions such as verification, validation or registration are explained in the graphic on page 21.

CO2 reductions, obligations and fulfilment

Klimagasminderung, erbracht oder vertraglich gebunden

	2006	2007	2008	2009	2010	2011	2012	2013	2014-2020	Gesamt bis 2020
Honduras: Small hydropower station	15,0	13,0	20,0	9,0	26,0	33,0	26,0			**142**
Nigeria: Efficient firewood stoves				0,5	4,0	9,0	23,0	42,0	152,6	**231**
India: Electricity from crop residues			11,0	43,0	28,0	36,0	35,0		0	**153**
Thailand: Biogas from sewage water				2,0	5,5	5,5	5,5	5,5	27,5	**52**
India: Solar lamps [1]						(1.0)	(2.0)	(2.0)	(25)	**0**
India: Biogas units for households			14,0	11,0	11,0	11,0	11,0	11,0		**69**
Lesotho: Efficient firewood stoves							2,5	8,5	58,0	**69**
South Africa: Wind power									96,0	**96**
Nicaragua: Wind power				63,0	57,0					**120**
Rwanda: Efficient firewood stoves							1,0	5,0	35,0	**41**
Bolivia: Electricity from Brazil nut shells							3,0	3,5	18,0	**25**
Kenya: Small biogas units for dairy farmers							0,5	1,9	13,0	**15**
Cameroon: Efficient firewood stoves							3,0	3,0	7,0	**13**
Total	**15,0**	**13,0**	**45,0**	**128,5**	**131,5**	**94,5**	**113,0**	**84,9**	**440,1**	**1.066**
Reduction obligation from climate protection contributions received [2]	**0**	**9,5**	**9,5**	**63,5**	**88,6**	**92,2**	**93,6**	**82,8**		
Reduction obligation from climate protection projects on customer order				**3,5**	**15,0**	**63,8**	**40,0**			
Accumulated climate gas reduction obligation through climate protection contributions	**0,0**	**9,5**	**19,0**	**86,0**	**189,6**	**345,6**	**479,2**	**562,0**		
Accumulated climate gas reduction, fulfilled or bound by contract	**15,0**	**28,0**	**73,0**	**201,5**	**333,0**	**427,5**	**540,5**	**625,4**		
Obligations fulfilled	✓	✓	✓	✓	✓	✓	✓	✓		

Entries in 1,000 t. CO_2

The projects in the planning phase are not included. The project in Burkina Faso is not included because the CO2 reductions are being used for the climate protection initiative of the German Federal Ministry for the Environment.

[1] Numbers in parentheses signify that the projects are in operation, but atmosfair has not credited itself with the CO2 reductions because the formal CDM verification for a small project has become too expensive.

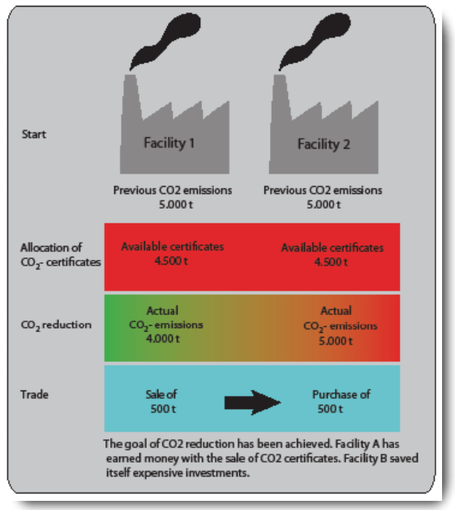
[2] Up to two years can elapse between the time of donation and the use in a climate protection project. For this reason revenues from the reporting year 2011 are represented here as reduction obligations to be realised in the year 2013..

Obligations met

The table shows the climate gas reductions that the individual atmosfair projects have already yielded or should yield according to the assistance agreement with the project operator. The agreements deal with those CO_2 reductions that the projects must yield so that atmosfair can fulfil its obligations to donators. It should be noted that up to two years can elapse between the time of the donation and the realised CO_2 reduction because each climate protection project requires a lengthy start-up period (see page 21). Comparing the reduction obligations to incoming climate protection contributions with the actual or contractually bound climate gas reductions from the projects reveals that atmosfair has fulfilled all of its obligations since its first year of operation in 2005.

Emissions trading: Prices have plummeted

Putting a price tag on the environment and its use: the EU Emissions Trading System (EU ETS) functions according to this principle. For this the currency is emissions certificates. How much is a tonne of CO_2 worth in this system? In the spring of 2011, a CER, an emissions authorisation from a climate protection project in developing countries in the EU, still cost around 13 Euros. One year later, the price has plummeted to 4 Euros. Can climate protection really be achieved so cheaply?



CO_2 certificates are traded in the EU ETS (Source: German Federal

atmosfair does not participate in emissions trading. Nonetheless the EU ETS is an important reference point: besides voluntary climate protection contributions from individuals, atmosfair also receives contributions from companies to compensate their business travel. For these the price is important, even if atmosfair can show that it is not possible to carry out a project with integrity for 4 Euros.

The problem is that emissions trading involves an artificial market that is dependent on many factors – economic development, the politically established upper limit for CO_2 emissions, the price of oil, etc. – but only slightly on how expensive CO_2 prevention actually is.

The principle of emissions trading

The idea is simple: every year 11,000 companies that fall under the EU ETS must provide their "pollution rights."The governments determine the amount of certificates that will be available on the market and thus designate the total amount of emissions produced. If the CO_2 emissions of a company are greater than the rights that it is due (cf. Facility 2 in the graphic), it must purchase certificates. The more expensive they are, the more worthwhile it is to invest in the direct saving of greenhouse gases.

Fewer emissions – too many certificates

Theoretically the current price must mirror the actual prevention costs of a tonne of CO_2. In practice, however, the price of certificates has fallen because governments have distributed too many rights. Besides this, the rise in emissions has slowed due to the weak economic development in the EU states after the financial crisis. Also, industry lobbies have succeeded in pushing through numerous exemptions.

Thus companies have extra certificates that they can save, and since pricing pressure is absent, it is possible that companies will not need to undertake any additional efforts to protect the climate until perhaps 2015 or later, depending on how the economy recovers. For this reason, the EU is considering removing up to 1.4 billion certificates from the market in order to stabilise the price.

Certificates from the CDM

Climate protection measures in developing countries are less expensive and quicker to implement than they are in industrial countries. In order to use money most effectively for climate protection, the EU Emissions Trading System also allows savings from other parts of the world to be used for one's own CO_2 balance sheet.

This is possible through the Clean Development Mechanism of the United Nations (see the box below for more about the CDM). While the "additionality" of CDM projects is sometimes doubted, meaning whether the project would have come into being without climate funding, additionality is doubly guaranteed by atmosfair's CDM projects. For one thing, atmosfair does not purchase certificates from the certificates market as other compensation service providers do, but rather supports projects that it essentially supervises and establishes itself. Beyond this the Gold Standard examines the additionality of the projects once again separately.

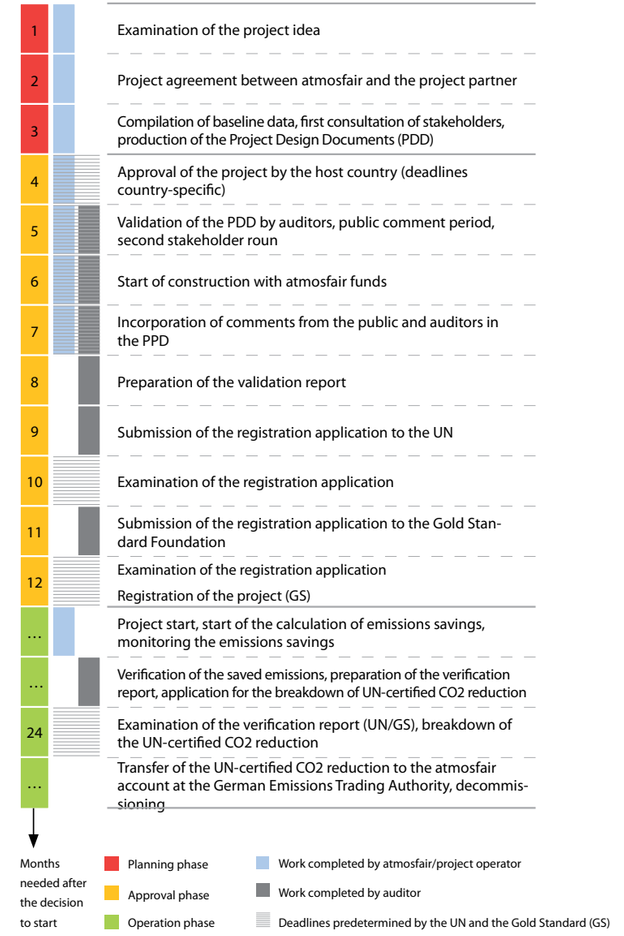
atmosfair uses the emissions trading mechanisms for a practical purpose: atmosfair proves the results of the use of its climate protection contributions at the UN level by way of the prescribed project tests through liable auditors, disclosure requirements on the UN websites, stakeholder involvement and the continuous decommissioning of certificates.

Long-term financial pledges for sustainable climate protection

Generally, atmosfair accompanies the projects from the start; the financing often occurs in advance, and the contracts are concluded long-term. The on-site partners present a financing plan for longer periods of time so that they can calculate the real CO_2 reduction costs well. They lie well above the EU market price for certificates, as shown on page 6.

Typical process of a CDM Gold Stand project

atmosfair interactions with partners, public authorities and predetermined deadlines



Clean Development Mechanism (CDM) of the UN

Almost 4,000 climate protection projects are officially recognized in the CDM. Since 2003 they have saved 900,000,000 tonnes of CO2 on paper. That is about as much as was emitted in Germany in total in 2010.

The CDM has come under pressure in the last few years. Projects with the industry gases HFC-23 and N20 are considered especially critical. Half of all of the hitherto yielded certificates come from ten such projects in Korea, India and China. Both of these climate gases are simple and inexpensive to avoid - so simple that some project operators are suspected of allowing the facilities to continue running in order to produce lucrative certificates.

Meanwhile, the EU has called a halt and banned projects of this nature from the EU Emissions Trading System as of 2013. However thus far the huge number of certificates from industry gas projects have driven down the price.

There are also doubts about Chinese wind parks. 90% of these facilities are registered with the UN as CDM projects although their construction is generously supported by the state. By now, China is the wind power frontrunner worldwide. Thus it can hardly be said that the wind parks were only made possible through the money from purchased certificates and were therefore "additional" – a central criterium for the recognition as a CDM project.

Standpoint: compensation yes, climate-neutral no.

die tageszeitung

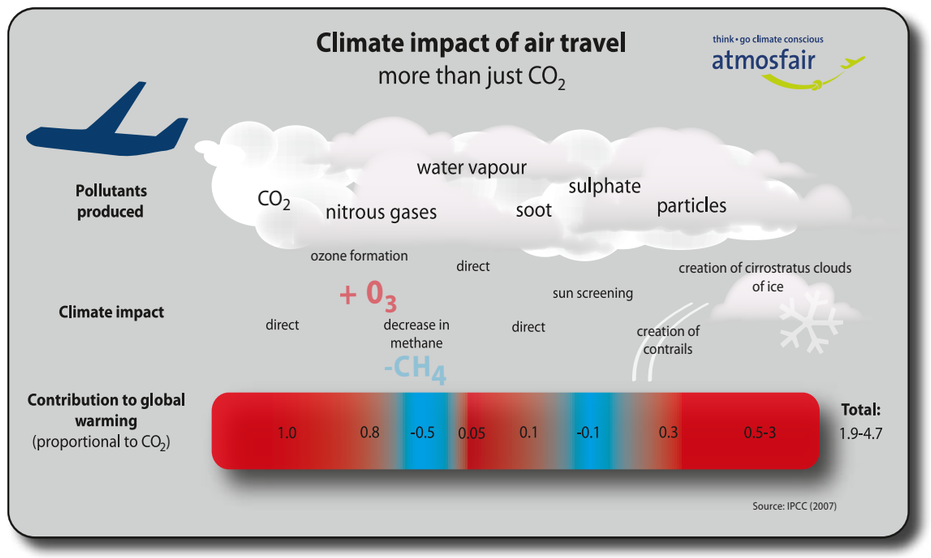
Can air travel be climate-neutral? The taz newspaper asked atmosfair at the beginning of 2012. Our answer did not please some in the "climate-neutral branch:"

The word "climate-neutral" goes farther than "compensation." Climate-neutral suggests that it does not make a difference for the climate whether one flies, takes a train fueled by renewable energy or stays at home because it is "neutral" for the climate. This is not true, especially with respect to air travel, and for this reason atmosfair talks about compensation. The term itself implies that it is not the ideal solution.

Organisations such as the German Advisory Council on Global Change (WBGU) have shown that our society must transform itself fundamentally in order to adhere to natural climate protection parameters. Technological innovation such as the use of renewable energies is a necessary part of this, just as is the more deliberate handling of natural resources. However, it is currently forseeable that these transformation processes are proceeding too slowly, and so the climate will be harmed in ways that have consequences for people worldwide. atmosfair is taking on a task in this transformation process: for air travel, there is currently no technical solution such as unproblematic biofuels or the zero-emmision airplane.

Those that travel by train are investing in the railway system .

Since January 2012, airlines that start or land in the EU must possess CO_2 emissions allowances. Airlines receive 80% of them free of cost and must buy 15% at auction. This is how the EU Emissions Trading Directive envisions the system. This represents the first limitation on CO_2 emissions in the air travel sector EU-wide. Until 2020 the CO_2 emissions allowed should remain at 95% of their level in 2004-2006. However, the CO2 emissions from air travel since then have grown far beyond this mark. For this



Emissions trading with low impact

growth, the airlines must purchase allowances from other companies in the trading system, for example from electricity, cement or steel producers.

Whether foreign airlines comply with the EU requirements will first become clear in April of 2013 when American, Chinese or Indian Airlines also have to deal with CO_2 certificates in the EU. Even in early 2012 states and airlines formed considerable legal, economic and political resistance.

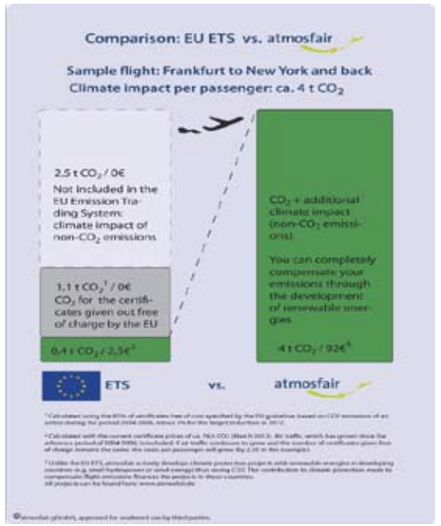
Important pollutants omitted

Unfortunately, the directive has weaknesses from an environmental perspective. First, it does not regulate all greenhouse gases, but rather only the pure CO_2 emissions (cf. the graphic on page 20), although these only make up a third of the total climate impact of air travel. However, because the other pollutants are not accrued equally by all flights and their climate impact depends on external and changing circumstances such as flight altitude, humidity, etc., it will be almost impossible to include these in the EU directive.

Climate protection cheaper than the cup of coffee before departure?

However, the main problem is a different one: the whole EU Emissions Trading Scheme does not currently lead to investments and concrete CO_2 reduction measures in European industry because the prices for CO_2 allowances are at rock bottom. The CO_2 emissions declined through the recession and financial crisis in the EU because industry was producing less (also cf. page 20 for more on this). Air travel can benefit from this by purchasing allowances cheaply from other sectors to finance its growth.

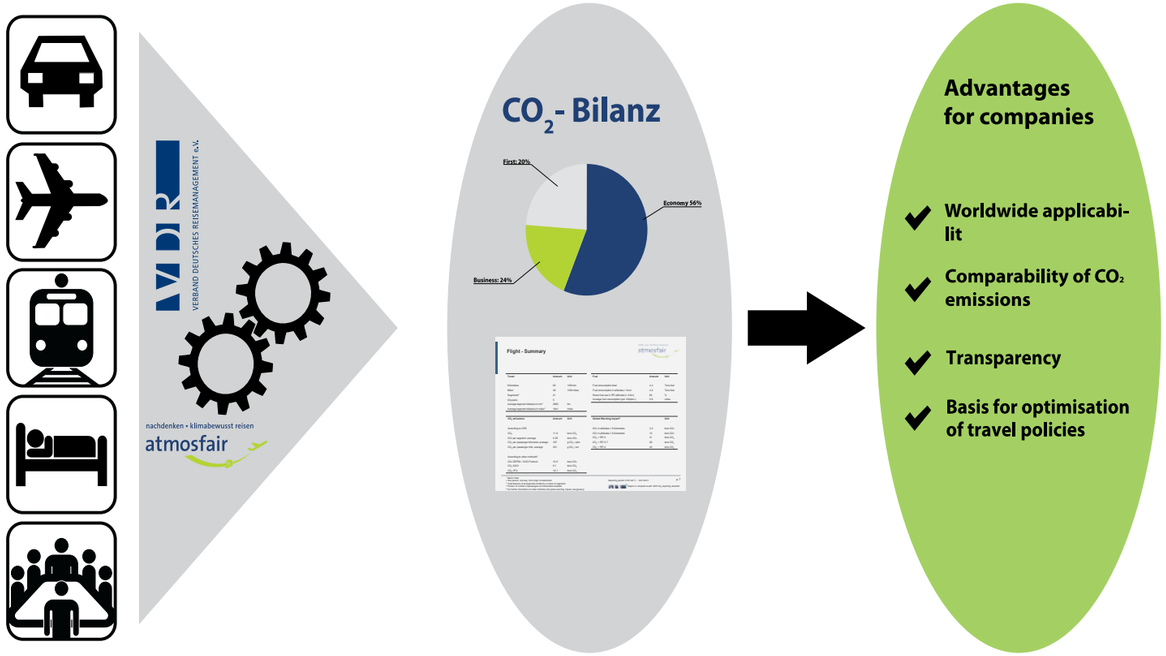
The federal government has also estimated that "the impact [of the Emissions Trading Scheme, editor's note] on the projected growth in demand will be extremely small" (German Bundestag Official Record 17/8264). Calculations show that at the current certificate price for passengers, the ticket price would only need to rise by 2 Euros, even for a long-distance flight – that is less than a cup of coffee at the airport.



The EU Emissions Trading Scheme only captures part of the total climate impact of a flight. atmosfair shows the full costs that are necessary in order to compensate the complete climate impact of a flight through the development of renewable energies.

The atmosfair approach, in contrast, reflects the full climate costs and above all: atmosfair uses the voluntary climate protection contributions directly in reducing CO_2 emissions as well as the development of a renewable energy system worldwide.

CO_2 on business trips: Cooperation with the Association of German Travel Management (VDR)



The VDR Standard records and calculates the CO2 balance for all relevant parts of a business trip.

Businesses face many demands with regard to climate protection: customers demand transparency, investors increasingly seek out sustainable corporations and employees desire more commitment in the area of climate protection that they can identify with. Legislation is also being developed: countries such as France have recently started requiring compulsory CO_2 reporting for business travel, and the existing EU accounting standards already explicitly require coverage of environmental and climate issues in management reports.

Unlike other emissions sources, business trips can easily be examined, and non-manufacturing industry constitutes a considerable portion of the total emissions: in the service sector, it can quickly add up to more than half of the total emissions.

Emissions reports with little significance thus far

Nonetheless, a standard for CO_2 reporting has been lacking until now. There may have been methods to calculate CO_2 emissions of various modes of transportation, but none of these were equipped to deal with the specific internationality and data situation of the actors in the business travel branch. International travel through several countries using different modes of transportation especially presented difficulties. The result was emissions reports with little significance: the numbers were inexact and not comparable. It is very difficult to decide on CO_2-reducing measures in business travel based on such accounting.

Cooperation between VDR and atmosfair

This will change with the new VDR Standard. The Association of German Travel Management (VDR) introduced it together with atmosfair at the Autumn Conference on Business Travel and Mobility Management 2011. This was preceded by an intensive technical cooperation that created and agreed on the standard..

The VDR is a business travel association for Germany that also has important connections to European and international associations. Its members are companies, from SMEs to large corporate groups, for which business travel is important. It also includes service providers and transport companies, such as travel agencies, airlines or special travel credit cards.

The VDR's sustainability committee, the participation of experienced service providers and a separate review process with companies of all sizes ensured that the standard achieves what it should: worldwide applicability, a given level of accuracy and easy handling in daily business travel practice..

From door to door and applicable worldwide

The main challenge for the VDR standard was reconciling these three demands. This was successful, and thus it is possible to account for and analyse CO_2 emissions in a consistent and high-quality way. The standard covers all the elements of a business trip from door to door: flight, rail, rental car/motor vehicle, hotel and events. The calculation methods are standardised for worldwide use so that a trip by train in Peru can be reported just like a hotel booking in Moscow.

The results will thus be comparable and deliver the necessary basis for companies to record their CO_2 reduction potentials, examine the travel policies within companies, to fine-tune them and finally evaluate the adopted changes.

"With atmosfair, VDR has gained an experienced partner in creating the methodology. The quality of atmosfair's calculation methods has been confirmed in many studies and not least by the Federal Environmental Agency. [...]

I am certain: the new standard for CO_2 reporting will not only benefit the climate, but also the companies through more energy efficiency and lower costs."

Former Minister of the Environment Röttgen at the presentation of the VDR Standard

Building on existing methods

With this, the VDR Standard builds on existing and reviewed calculation methods such as those from ICAO, IPCC or the Greenhouse Gas Protocol.

This is important in order to ensure international coverage. The further development of the VDR will require standardising the available system boundaries (defining what is a part of business travel) as well as refining existing methods to the point that a level of accuracy can be reached that allows for a rerouting within the company in the direction of climate protection. Thus, the train class, hotel category or flight class must be shown.

VDR
VERBAND DEUTSCHES REISEMANAGEMENT e.V.

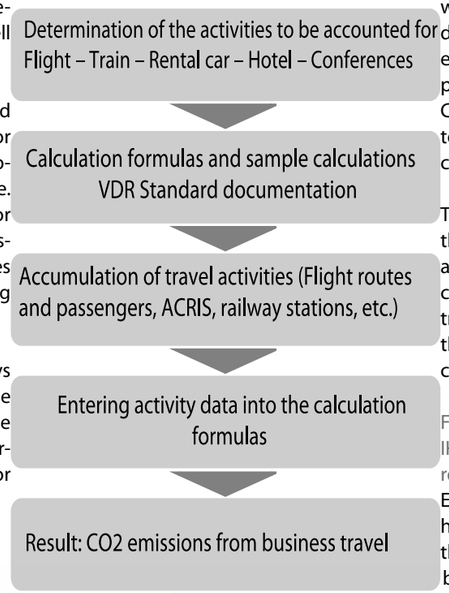
Level of accuracy and suitability in practice

The target group of the standard is companies that need to provide answers for investors or rating agencies where CO_2 is concerned. For this reason the VDR Standard consists of a transparent calculation methodology in which calculation formulas are defined and explained for every element of business travel. For each area, the way the formula came about and which elements are taken into account in the calculation with which level of accuracy will be described in detail. With flights, for example, this includes the route, the type of aircraft, the seating, the seating classes as well as the occupancy rate.

Together these factors can lead to double the CO_2 emissions for one flight as compared to another flight on the same route. Here there is a clear potential for the company to reduce its emissions, which can sometimes even save money by switching airlines.

The necessary data can always be restored. In this case, the flight number, with which the VDR Standard can derive all further information, is sufficient for this purpose..

This goes for all sectors of the VDR Standard, including rental cars, train trips, hotels, and events: although the VDR Standard achieves a certain level of accuracy, only a few booking details are necessary in order to reveal the additional input data. In this way, data about the energy mix, occupancy rate, etc. can be determined given the booking region, the room category, and the star rating by using extensive studies and literature for the most important business travel countries.



The steps to creating a CO2 report according to the VDR

Different paths to CO_2 accounting

Each company can create its own CO_2 report for business travel according to the VDR Standard. For this the company must record its business trips and use the VDR methodology with emissions factors from the data section to evaluate them. For SMEs up to 50 employees use is free of charge; larger companies pay a small yearly license fee.

However, there is also the possibility that a service provider can complete the accounting. atmosfair works together with different travel agencies and travel credit card providers to create the CO_2 reports according to the VDR Standard for companies.

The third possibility is the direct way using atmosfair. For this the company collects its travel data and conveys them, and atmosfair calculates the CO_2 balance.

From the Telekom to IKEA: high demand for reports

Even if many companies have long since realised the need to account for business travel emissions, in the past they had reservations about CO_2 accounting for business trips. This was due to the lack of standardisation and comparability. Since the introduction of the VDR Standard in the autumn of 2011, companies have been specifically interested in CO_2 accounting according to the new industry standard. Whether Merck, Heineken, IKEA, Miele or the Deutsche Telekom – a great number of companies are already using atmosfair's VDR Standard reporting services.

Interview with Dirk Gerdom, President of VDR

Why did VDR decide to develop a standard for reporting CO_2 emissions for business travel?

Serious sustainability reporting is increasingly gaining importance. For this our members urgently needed a seal of quality. As an association we now provide this – with scientifically sound calculation methods!

Why cooperate with atmosfair?

We have only had good experiences with atmosfair. The cooperation has run smoothly and with trust for many years. Besides this, it is important for the credibility of our product to work together with the best. Many comparision studies such as that of the Federation of German Consumer Organisations 2010 have judged atmosfair the test winner among offsetting providers, especially since their CO_2 calculation follows the recommendations of the German Federal Ministry for the Environment in the area of air travel.

What is new compared to conventional business travel emissions calculations?

What's special about the new standard is that it requires few travel data and is decidedly easy to use. At the same time it delivers results that are exact enough to model the smallest changes such as the train wagon class, the hotel category or the flight class. Good conditions for establishing oneself!

Which advantages do companies have?

The calculation standard allows companies to account for and analyse their CO_2 emissions in their sustainability reports in this hitherto neglected area in a systematic and high-quality way. Because the values can be compared and classified, it is very simple to develop courses of action for reducing emissions.

How do you assess the market for corporate CO_2 reporting, and how can the new standard reach the VDR members?

Especially in times when cost reductions are not the sole focus of travel management, there is room to think about sustainable mobility, but first the standard must be established. First multiplicative factors such as business travel agencies or credit card providers are already offering "green reports." This is a first important achievement in establishing the CO_2 standard, but travel managers are also asking for an integration of the standard within their systems.

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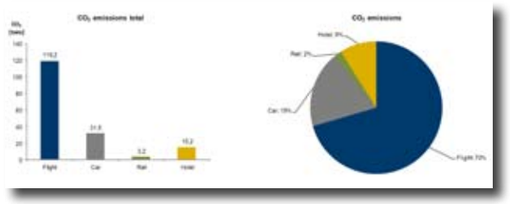
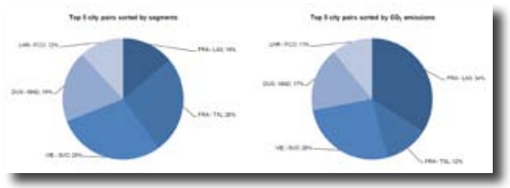
CO_2 emissions	Amount	Unit
According to VDR		
CO_2	11.6	tons CO_2
CO_2 per segment, average	0.55	tons CO_2
CO_2 per passenger kilometre, average	187	g CO_2 / pkm
CO_2 per passenger mile, average	301	g CO_2 / pm
According to other methods[5]		
CO_2 DEFRA / GHG Protocol	10.5	tons CO_2
CO_2 ICAO	9.1	tons CO_2
CO_2 VFU	12.1	tons CO_2

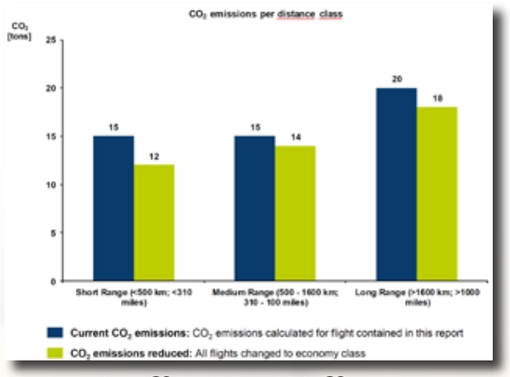
Sample page from a CO_2 report: summary of the CO_2 emissions from the area of air travel (according to the VDR Standard)



Sample page from a CO_2 report: comparison of individual sources of emissions by source and by month.



Sample page from a CO_2 report: analysis of the most flown routes and their CO_2 emissions.



Sample page from a CO_2 report: potential for CO_2 reduction by booking economy class for all flights.

Products created to connect the business travel world

Since 2007 atmosfair has purposefully created the necessary IT infrastructure in order to provide companies in different situations with different needs with reporting solutions.

On the basis of their business travel data, companies receive a PDF report from atmosfair with information on their total and partial emissions in the form of tables and graphics. Beyond this, an Excel table with all of the results reported individually allows the company to conduct detailed CO_2 analyses and rounds off the product.

Besides the creation of CO_2 reports in direct contact with atmosfair, companies can comfortably order CO_2 reports through the travel credit cards AirPlus and American Express or through all well-established, large business travel agencies.

VDR VERBAND DEUTSCHES REISEMANAGEMENT e.V.

AAI analysis tool for companies

In 2011 atmosfair expanded the Airline Index, which compares the climate efficiency of the 130 largest airlines in the world, into an analysis tool for companies. With this atmosfair can now deliver detailed reports on companies' most often flown routes that directly compare the airlines that fly those routes and their CO_2 emissions.

The graphic below shows an example of a city pair assesment for a flight from London to New York, a frequently flown route for business travel. In this case the atmosfair analysis reveals that this flight produces the least CO_2 emissions per passenger on the Boeing 777-200 LR, fully equipped with seats and fully occupied. Unfortunately no airline uses this exact aircraft. Some passeners from United Airlines also fly using code sharing in seats of this Contintental aircraft.

Delta Airlines occupies second place while American Airlines and Virgin Atlantic did not do well. Also interesting is that Contintenal is the cleanest airline and according to the ticket prices displayed actually even more inexpensive than many of the less CO_2-efficient competitors. Thus large companies can optimise costs and CO_2 emissions when buying ticket quotas using this analysis.

Airlines and efficiency rank	Net load factor (pax & cargo) [%]	Seating capacity [seats]	Kerosene consumption [kg]	Climate efficiency [points]	Average ticket price [EUR]	**Change assessment [eff./price]**
Achievable optimum Boeing 777-200LR	100,0%	440	42.498	100	-	
1. Continental Airlines				60,2	778	**+/+**
Boeing 757	54,8%	175	20.784			
Boeing 777	39,7%	283	35.900			
CodeSharing:						
Lufthansa					785	**+/o**
United Airlines					769	**+/+**
British Midland					785	**+/o**
Iberia					954	**+/-**
2. Delta Airways				54,8	1001	**+/-**
Boeing 767-400	53,3%	281	31.839			
Boeing 767	39,4%	214	28.770			
CodeSharing:						
KLM					1010	**+/-**
3. British Airways				53,7	785	**current**
Boeing 767	54,6%	216	31.150			
Boeing 747-400	48,1%	291	59.570			
Boeing 777	47,8%	267	39.140			
CodeSharing:						
Iberia					954	**o/-**
4. American Airlines				44,9	788	**-/-**
Boeing 777	47,8%	247	40.486			
CodeSharing:						
Jet Blue					769	**-/+**

CO_2 calculator customised for venues

Conferences, trade shows, conventions – in the working world, people like to meet and are doing so more and more frequently. The German conference industry recorded 300 million guests in 2010 alone. The branch is booming: around 6,500 conference venues are competing for the favour of companies and event agencies. It is important to develop unique selling points in order to successfully position oneself in the market. The conference industry is also taking a critical look at environmental and climate protection. Event locations are increasingly being certified according to sustainability factors and offering their customers the CO_2-reduced event ticket from Deutsche Bahn or catering packages with regional, vegetarian and organic products.

Complete climate accounting including travel emissions

Today companies can already choose among a few such "green locations." atmosfair offers these venues an online CO_2 calculator that considers their respective rooms and energy uses on an individual basis.

The calculator can then be integrated as an iframe into the website of the location and used comfortably by the customers. They enter the framework data of their planned event: duration, person count, rented rooms, booked catering, guest travel, etc. Based on the energy use data of the respective location, the CO_2 online calculator immediately produces a complete climate report of the event with all of its components. In the next step the customer can download the report with all the details and use it to compare it with other offerings. Finally the calculator offers compensation of the CO_2 emissions through a climate protection contribution to atmosfair. Together with the upstream measures of CO_2 avoidance and reduction at the venue, this results in a reliable overall package..

References (selection)

dbb forum berlin · congress centrum neue weimarhalle weimar · BESONDERE ORTE · Holiday Inn · ATLANTIC HOTELS · CROWNE PLAZA BERLIN CITY CENTRE · Hôtel Concorde Berlin KURFÜRSTENDAMM

The Science and Convention Centre Darmstadt has existed since 2007. Even during the planning phase, careful attention was paid to climate protection and sustainability. With the integration of atmosfair's CO_2-calculator, the centre is in the position to offer customers a comprehensive "green meetings" concept. atmosfair spoke about this with the managing direction Lars Wöhler.

How do you assess the market for climate-friendly events? Is there a real change in awareness, or is this topic just a fad?

I see a real change in awareness here that will continue over the next few years. Conferences, conventions and events are an opportunity for companies to make their social, ecological and economic corporate responsibility outwardly visible. The choice of venue is of central importance because the conditions that it provides are decisive in determining the degree of an event's sustainability.

The darmstadtium presents itself as a forward-thinking venue. What do you base this on?

In Germany the darmstadtium belongs to the leading buildings taking responsibility for economic, ecological and social responsibility and a sophisticated sustainability concept. The energy concept consists of a cooperation between architectural and technical measures, the use of regenerative energy sources such as photovoltaics, geothermal energy and heat recovery. The intelligent energy mix leads to a significant reduction in our primary energy demand.

You offer "green meetings." What does this mean?

"Green meetings" stands for sustainable management in all areas – ecological, economic and social. In the darmstadtium sustainability first begins with the sophisticated building technology. Through a discounted public transport convention ticket in cooperation with Deutsche Bahn, we offer the possibility of traveling to the convention with fewer CO_2 emissions. Guests can charge their cars with green electricity for free at our own electric filling station; furthermore, two e-bikes are available for use. The procurement of regional products and services and the consistent separation and recycling of waste also contribute to the conference centre's environmentally and socially acceptable way of doing business.

How important is atmosfair's venue calculator in your marketing?

atmosfair's CO_2 venue calculator is an important building block for the further realisation of our sustainability concept. Using the emissions calculator allows us to set up all of the additional components of the event beyond the building's emissions (mobility/catering/transport of goods) in a climate-friendly way. With this our sustainability concept is complete and is considerably more outwardly transparent. With the event calculator, we are offering the customers a reliable tool in order to help run the entire event in a climate-friendly way. The darmstadtium will actively use "atmosfair" in its marketing.

Tourism at the ITB trade

ITB BERLIN

WELTWEIT GRÖSSTE REISEMESSE

Holger Badstüber advertised for atmosfair and the compensation of flight emissions at the ITB

atmosfair was represented for the fifth time at the International Tourism Exchange (ITB) in Berlin. However it was the first time that an outstanding centre-back and national football player supported atmosfair: Holger Badstuber of FC Bayern Munich did not just attract prominent visitors to the stand in Hall 4.1 (in the picture at right: the Minister for Economic Cooperation, Dirk Niebel). He also advertised in larger than life form for the compensation of flight emissions between the halls.

This was made possible by the ITB Berlin, official partner of atmosfair since 2008. The trade show is the leading meeting place for the tourist industry worldwide, which thus lends it a special role in the development toward sustainable business.

Compensation

With its far-reaching influence in the branch, the ITB Berlin takes this job seriously and actively advertises for sustainable and responsible travel and the idea of voluntary compensation with atmosfair to its customers and business partners.

Those who had not already compensated their trip to the venue while booking their trade show tickets could do this directly at the show: at the southern entrance of the trade show grounds, atmosfair was also represented with a compensation stand.

Support for a biogas project in India

atmosfair also had a special place in the ITB Berlin's accompanying programme: in the panel on sustainable and socially acceptable tourism, atmosfair managing director Dr. Dietrich Brockhagen presented on the biogas project in the South of India, among others (more on this on page 16).

The ITB Berlin would like to support this project in particular. Dr. Brockhagen showed how voluntary compensation contributions help famers in the region to become self-sufficient energy providers.

Minister Niebel in front of the atmosfair stand]

The Grüne Palme for the founder of atmosfair

For atmosfair the highlight of the ITB Berlin in 2012 was the awarding of the Grüne Palme. The travel magazine GEO SAISON awards the Grüne Palme annually to honour people for their especially social or ecological engagement. This time the eleven-person jury, composed of representatives of the German travel business, acknowledged the merits of the founder of atmosfair as a consistent and successful fighter for climate protection in the branch.

In his laudatory speech, the GEO SAISON editor-in-chief described the atmosfair managing director as a fighter for climate protection who consistently even expresses uncomfortable truths for the branch, but meanwhile offers solutions. The compensation provider atmosfair is also convincing, Lars Nielsen continued, because it is a regular winner of comparison tests.

„"Dr. Brockhagen is not a zealot, but rather has a cool, analysing, calculating mind. […] [He] strains the nerves of politicians just as he does aviation managers […] in order to achieve something. However his radicalness is based on facts that he verifies and numbers that he can calculate clearly." Though many have imitated the pioneer, no provider has been evaluated so consistently so well in international comparisons.

"There's more to be done!"

Dr. Brockhagen lived up to his reputation and used the opportunity to obligate the branch. To the representatives present he called out: "The German travel industry is situated well enough to completely integrate climate protection into holiday travel. There's more to be done!"

Editor-in-chief Nielsen and atmosfair founder Brockhagen

atmosfair honours tour operators

atmosfair itself also granted awards: for its exemplary environmental consciousness "Island Erlebnisreisen" won the atmosfair award in gold. Approximately half of the CO_2 emissions resulting from the flights of the tour operator in Wedel were compensated with voluntary climate protection contributions. Bruno Guttenberg, managing director of "Island Erlebnisreisen," said, "The credit for this award goes to our climate-conscious customers who wish to experience Iceland's and Greenland's magnificent nature, but not at the expense of nature. The effects of climate change are already clearly visible in these countries.

„This time "Vamos Eltern-Kind-Reisen" received the atmosfair award in silver because nearly 40 percent of the climate gases created by the flights of "Vamos" customers were compensated with voluntary climate protection contributions. In addition a great deal of praise is due to "biss-Reisen" and "Lernen und Helfen Sprachreisen:" both of these tour operators shared the atmosfair award in bronze.

We fly atmosfair

Mehmet Kurtulus does it, and so do Hannelore Hoger, Sönke Wortmann, Judith Döker and many others: they all fly atmosfair. Their individual motives are diverse: "With atmosfair we can help to reduce CO_2 emissions." "Because travel must have a future." "Change starts with all of us." "Because my children should grow up in a healthier environment."

However the result is the same for all of them: for the actors, directors, athletes, musicians and chefs it is a matter of course to make an active contribution to climate protection. For this reason they are participating in the atmosfair climate protection campaign and are advertising for voluntary climate protection contributions at German airports. A selection of these posters can be found on this double page.

Video by bluetooth

In Hamburg atmosfair is striking out in a new direction: there an atmosfair video can be downloaded directly by bluetooth via QR Code and viewed on mobile phones.

Detailed information on the campaign can be found at www.atmosfair.de/Hamburg. The video can also be found directly at bit.ly/atmosfair.

Stars for climate protection

The following celebrities have been involved in the atmosfair climate protection campaign:

- Holger Badstuber
- Daniel Brühl
- Guido Buchwald
- Cacau
- Uschi Disl
- Judith Döker
- Astrid Fünderich
- Hannelore Hoger
- Hamburger Sportverein
- Mehmet Kurtulus
- Lisa Martinek
- Wotan Wilke Möhring
- Max Mutzke
- Désirée Nosbusch
- Georg Schweisfurth
- Saskia Vester
- Harald Wohlfahrt
- Sönke Wortmann

Fairplay! for climate protection

It was the largest football event worldwide to ever take place in a climate-friendly way: The FIFA Women's World Cup 2011 in Germany.

The Women's National Football Team 2011

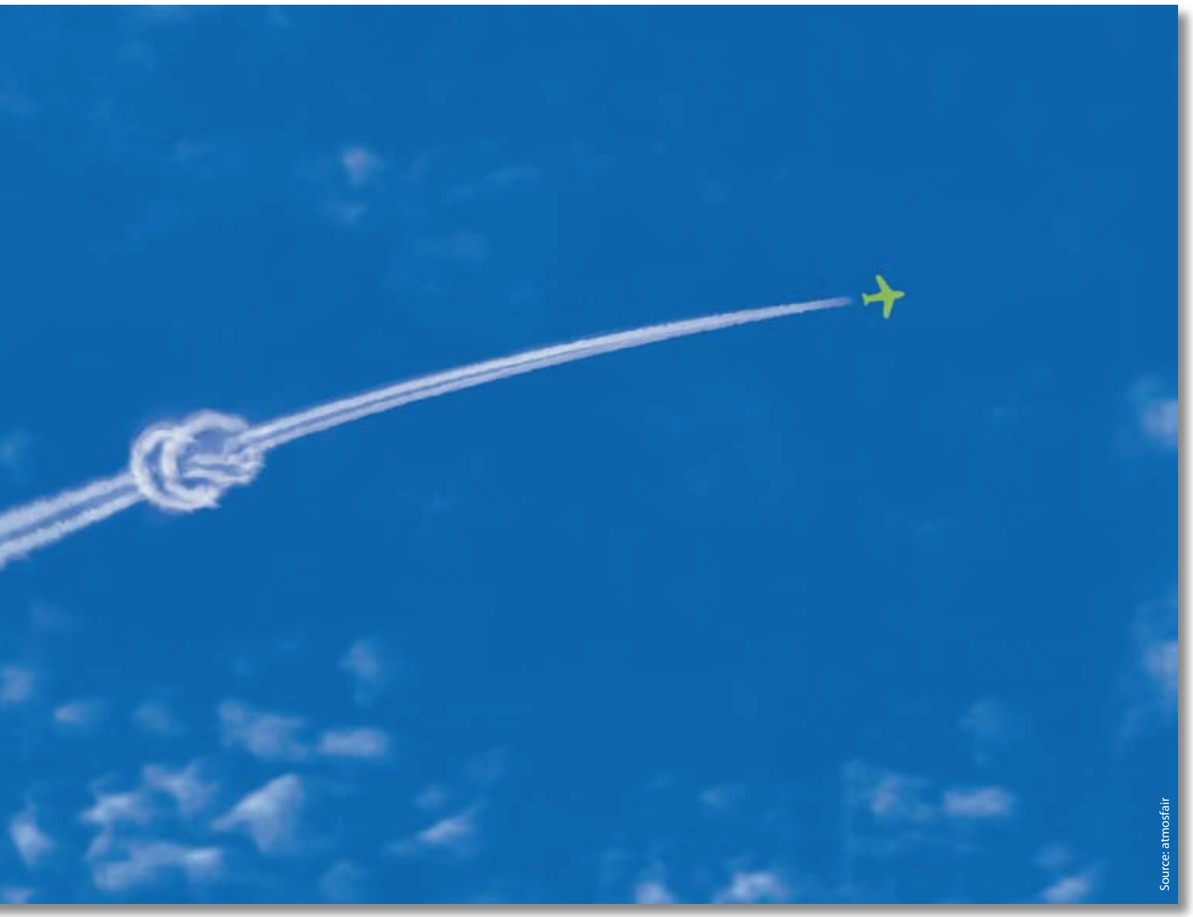
FIFA's climate partner was atmosfair. Within the framework of the environmental program "Green Goal 2011," atmosfair compensated the CO_2 emissions of the international sporting event. The payments that FIFA made as part of the compensation benefitted the three atmosfair CDM Gold Standard projects in Nicaragua, India and Honduras.

Die Ärzte for the climate

"The end is not yet over" – this is not a parable for the state of global climate change, but rather the fitting title of the Die Ärzte tour. While they continued on tour during the spring of 2012, the band had already compensated its concerts from December 2011. Besides the concerts, the compensation also covers the concert rehearsals. Not only were the CO_2 emissions of the band and crew's travel compensated, but also the harmful effects of heating and catering. Exemplary!

The band "Die Ärzte" on tour

Finances


Source: atmosfair

At over 4 million Euros, revenues continued to increase in 2011. atmosfair did not receive any public subsidies whatsoever, by which the non-profit limited liability company remains completely independent.

Since 2007 revenues from economic business operations have been added on top of the contributions. The profits generated this way pay for part of the costs of the non-profit part of atmosfair. In this way the administrative component could once again be kept under 10% of costs. Out of 100 Euros, 92 Euros went to the purchase of technologies as well as to the planners and operators of the climate protection projects in the developing countries; atmosfair used just 8 Euros for its own personnel for customer support as well as for other costs such as IT, bookkeeping, public relations work, rent and credit card fees.

Organisation
Stiftung Zukunftsfähigkeit based in Bonn continues to be the sole partner of the atmosfair gGmbH. The four-person advisory board, consisting of two representatives of the German Federal Ministry for the Environment and two representatives from environmental organisations, approved the climate protection projects and the new partners from the private and business travel sectors that signed on in 2011. The fiscal authority certified the non-profit limited liability company's tax exemption for 2010. For the climate protection contributions that came in in 2011, the non-profit GmbH issued the donation certificates at the beginning of 2012 in due form.

Financially independent
atmosfair financed itself in 2011 solely through donations and revenues from economic business operations. The latter is allowed to a limited extent within a non-profit organisation. atmosfair did not receive any public subsidies and is thus financially independent. The sole partner Stiftung Zukunftsfähigkeit did not pay any money to atmosfair in 2011, and neither did atmosfair pay any money to the foundation..

Profits and expenses
In 2011, donators paid nearly 2 million Euros in climate protection contributions to atmosfair.

The largest expenses are the payments to climate protection projects. These include costs for the purchase of technologies (e.g., stoves), project set-up and operation, including the TÜV audit and other UN-approved auditors as well as the personnel abroad for the projects. In total, atmosfair spent some 2.4 million Euros.

Furthermore atmosfair built up financial reserves in the amount of approximately 1 million Euros for the agreed-upon payments in project contracts in the coming years. These will be distributed gradually over the next years when the contractually agreed-upon payments from atmosfair are due to the climate protection projects.

In addition there were personnel costs for the atmosfair office in Berlin for the project planning and support that amounted to almost 130,000 Euros in 2011. Thus the climate protection projects benefitted from over 3.5 million Euros altogether in 2011.

Balance sheet of atmosfair gGmbH

31.12.2011			
Assets	**€**	**Liabilities**	**€**
A. Fixed assets	12.432,00	A. Owner's equity	6.573.791,39
I. Intangible assets	1.611,00	I. Subscribed capital	25.000,00
II. Tangible assets	10.821,00	II. Reserves for statutory purposes	
		-Short-term reserves for climate protection projects	5.186.419,00
		-Free reserves (also may be used for climate protection projects)	1.362.372,39
B. Current assets	6.708.652,53	B. Provisions	10.519,46
I. Inventory	481.815,12	- Taxes payable	4.736,00
II. Accounts receivable and other assets		- Other provisions	5.783,46
- Trade accounts receivable	286.079,15		
- Other accounts receivable	134.321,36		
III.Cash and cash equivalents	5.806.436,90		
C. Accruals	1.634,90	C. Accounts payable	138.408,58
		- Trade accounts payable	22.265,05
		- Other accounts payable	116.143,53
Total	**6.722.719,43**	**Total**	**6.722.719,43**

Income Statement for atmosfair gGmbH

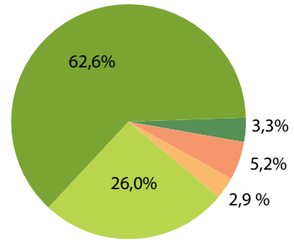
	2011	2011	2010
Revenues	**€**	**%**	**€**
Voluntary climate protection contributions for climate protection projects (donations)	1.913.851	49,4	2.153.162
Support from BMU: project biomass-to-electricity in Burkina Faso	0	0	339.430
Climate protection projects on behalf of customers and funds towards the purchase of technologies, before taxes	1.958.640	50,6	104.265
CO_2 reporting software, climate service for companies, before taxes	131.847	3,4	472.892
Other revenues (interest, etc.)	72.563	1,9	61.897
Total	**4.076.901**	**105,3**	**3.131.647**
Expenses			
a) Climate protection projects			
- Expenses (Set-up and operation, audit by TÜV, etc., planning and personnel in developing countries)	1.184.415	30,6	524.883
- Climate protection projects on behalf of customers and funds towards the purchase of technologies	1.241.120	32,0	104.265
- Reserves for climate protection projects, ongoing obligations until 2020	1.004.930	26,0	1.652.144
- Project planning and support from atmosfair in Germany (personnel)	127.708	3,3	110.438
Total	3.558.173	91,9	2.391.731
b) Economic business operations (WGB)*			
- CO_2 reporting software	19.190	0,5	180.965
- Personnel for the climate service for companies	79.817	2,1	150.360
- Taxes on revenues from WGB*	25.357	0,7	81.459
c) Personal			
- Support for contributors and partners	111.744	2,9	160.350
d) Other			
- Administration (telecommunications, postage, office supplies, insurance, membership fees, exchange rate differences, depreciation)	31.965	0,8	26.225
- Office (rent, etc.)	20.960	0,5	17.501
- Credit card fees, payment services, account fees	12.726	0,3	10.431
- IT (fees, maintenance costs, server costs)	67.165	1,7	20.915
- Bookkeeping, tax advisory services, financial statements	21.692	0,6	12.779
- Public relations work	46.996	1,2	40.452
- Printing costs for publications	3.380	0,1	8.919
- Work contracts	63.841	1,6	15.251
- Business trips	13.894	0,4	14.308
- Advertisements (e.g., print ads, billboards, television commercials, promotion teams)	0	0,0	0
Total d) Other	282.619	7,2	126.330
Total	**4.076.901**	**105,3**	**3.131.647**

*WGB =economic business operations. The realised gains after taxes (80,000 Euros) beyond the contributions cover the majority of the other expenses named under d)

IBy the end of 2011 atmosfair had contractually promised project operators close to 12 million Euros in total development funds until 2020. Thus atmosfair has more contractual obligations than reserves. These reserves for the climate protection projects, totaled nearly 5.2 million Euros. The reserves approach is necessary for climate protection projects that have a duration of 10 years. In this way contributions in the coming years will be used in order to satisfy existing contracts. Besides these reserves atmosfair is also building reserves to help pilot projects get off the ground.

Salaries in line with the TVL rate

Besides the climate protection projects, personnel expenses were the second largest cost factor. atmosfair employees earn salaries in line with the TVL (public service sector) rate. The total general administrative costs for telephone, postage, insurance and office supplies amounted to about 32,000 Euros. 21,000 Euros went to the rent. Furthermore atmosfair must pay the costs for credit card fees and payment services. These are necessary in order to account for the incoming online payments and transfer them to the atmosfair account. In 2010 nearly 13,000 Euros were used for this purpose.



atmosfair gGmbH expenses 20101

- Reserves for climate protection projects
- Payments to climate protection projects
- Support to climate protection projects
- Other administrative costs that are not covered by economic businessd operations
- Management of contributors and partners

Cost reduction through atmosfair's own profits

One of the atmosfair standards requires the efficient use of contributions, and thus only a small percentage of contributions are used for atmosfair's own costs. What is meant here are those funds that are not used for climate protection projects abroad, but rather by atmosfair for its own background work. In 2011 just around 8.1% of donation money was spent for this purpose and was used for personnel costs for the management of contributions, partners as well as for public relations work and travel costs.

Own total costs just 8% of contributions

One of the atmosfair standards requires the efficient use of contributions, and thus only a small percentage of contributions are used for atmosfair's own costs. What is meant here are those funds that are not used for climate protection projects abroad, but rather by atmosfair for its own background work. In 2011 just around 8.1% of donation money was spent for this purpose and was used for personnel costs for the management of contributions, partners as well as for public relations work and travel costs.

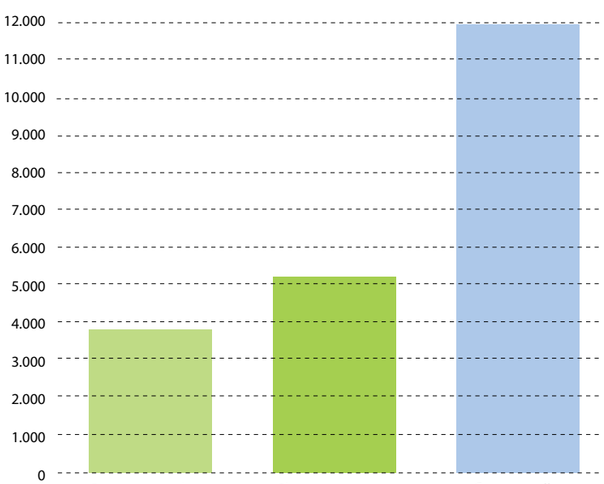
The low costs are also made possible by using atmosfair's own software that allows the management of the majority of the contributions to be conducted effortlessly. What is more, atmosfair continued to forgo all of forms of paid advertisement such as printed ads, billboards, television commercials or promotion teams in 2011. Partners financed the advertising campaign at airports, and the celebrities made their contribution free of charge.

Achievement of objectives

The climate protection projects that have thus far been signed off on should save over 1 million tonnes of CO_2 in total by the year 2020 according to the project contracts. With this the reduction obligations already received can be covered (see Overview on page 17). Within the two-year period that may elapse between the receipt of the contribution and its use in a climate protection project, atmosfair has thus far always reduced more greenhouse gases than were required by the contributions.

Project financing as of the end of 2011

in 1.000 €



Review and approval of the managing director's report

The managing director of the gGmbH drew up the financial statements on December 31, 2011. The partner's meeting determined the proper completion of the annual report on June 17, 2012 and approved the managing director's report. A resolution on the use of profits was passed with the build-up of reserves as shown.

atmosfair in the media

„[...]Unreservedly recommended: atmosfair [...]."
Süddeutsche Zeitung, 25. Januar 2011, Oft nur eine Luftnummer

Süddeutsche Zeitung

From now on the CO2 emissions created by the business flights of city politicians and administrative staff [from the state capital Munich] will be compensated by offsetting projects [...] The red-green majority has decided to partner with the company atmosfair […]."

Süddeutsche Zeitung, 14. Juni 2011, Stadt kompensiert CO_2-Emissionen

ÖKO-TEST
RICHTIG GUT LEBEN

"The German non-profit provider atmosfair is to be recommended without exception. The quality of its emissions calculator is exemplary; it uses a Radiation Forcing Index factor of three. atmosfair's work is transparent, the projects are CDM-certified and most even certified according to the Gold Standard […]."
Öko-Test, Issue 2, February 2011

DER SPIEGEL

In an ecological ranking by climate protection agency atmosfair, well-known airlines performed comparatively poorly. […] atmosfair included 103 airplane models and 22 million flights […]. 'The goal is to let climate efficiency become a bigger part of competition,' says climate researcher and atmosfair patron Mojib Latif."
Der Spiegel, 05. März 2011, Neuer Klima-Index

Frankfurter Allgemeine
SONNTAGSZEITUNG

"The climate protection agency atmosfair […] advises companies on how they can reduce their emissions and delivers a concrete comparison of providers. […] In the future atmosfair would also like to examine business hotels and conference locations for climate-friendliness. [atmosfair managing director] Brockhagen hopes to bring environmental competition into the business travel industry. […]"
FAS, 13. November 2011, Unternehmen Klima

THE INDEPENDENT

„The world's greenest airlines have been named at the ITB Berlin travel show [...]The study of airline efficiency was conducted by atmosfair [...]."
The Independent, 10. März 2011, Relaxnews

Frankfurter Allgemeine
FAZ.NET

"[atmosfair managing director] Brockhagen will reveal the first worldwide ranking of individual airlines' climate efficiency at the Berlin travel trade show ITB."
FAZ.net, 05. March 2011, Am Klima kratzen

die tageszeitung

"[…] The atmosfair projects included in the study have received the top marks in almost all areas […]. atmosfair also performs well on transparency and consumer communication. The company, which is also recommended by Greenpeace, has thus won first place."
die tageszeitung, 19. März 2011, Billige Buße

FINANCIAL TIMES DEUTSCHLAND

atmosfair – test winner of the newest consumer protection market study […]."
FTD 02. December 2011, Gasgeben fürs Klima

2010

Federation of German Consumer Organisations, 1st place: verbraucherzentrale Bundesverband
Test of greenhouse gas compensation providers

HNE Eberswalde

"The test winner is – as in many other international comparisons – atmosfair, a compensation provider for flights. atmosfair achieved very good, and at least good, ratings for almost all the criteria."

University of Graz, 1st place
Voluntary Carbon Offsets – An evaluation of European greenhouse gas compensation certificate providers

UNI GRAZ

"Highly recommended: atmosfair."

2008

Environmental Data Services:
The ENDS Guide to carbon offset

ENDS ENVIRONMENTAL DATA SERVICES

„atmosfair has one of the best offset portfolios in the entire industry"

Université Libre de Bruxelles, 1. Platz
Etude comparative des programmes de compensation volontaire de CO_2 en Belgique

ULB UNIVERSITÉ LIBRE DE BRUXELLES

„"This study places atmosfair at the head of compensation providers, an organisation that at present offers the highest quality and remains a model for others."

2007

Tufts University, 1. Platz
Voluntary Offsets for Air-Travel Carbon Emissions Evaluations and Recommendations of Voluntary Offset companies

Tufts UNIVERSITY

„...excellent documentations, good projects and strict verification procedures."

BBC Wildlife, 1. Platz
Offsettiing carbon emissions

BBC Wildlife

„[atmosfair] appears to be the most rigorously monitored offsetting organizations and has the most sophisticated approach to assessing CO_2 emissions from flights."

Team

Patrons

Prof. Dr. Klaus Töpfer

Former executive director of the United Nations Environment Programme (UNEP)

Prof. Dr. Mojib Latif

Professor at the Leibniz Institute of Marine Sciences at the University of Kiel

Prof. Dr. Hartmut Graßl

Former director of the Max Planck Institute for Meteorology in Hamburg

Employees in customer service and product development

Dr. Dietrich Brockhagen

Physicist and economist
Former positions at the German Aerospace Centre, the European Commission and the German Federal Ministry for the Environment

Erik Pfauth

Geographer, sustainable tourism management
Travel product development, events, CO_2 reporting

Jan- Moritz Jericke

M.A. in International Affairs, Environment and Sustainable Development
Business development and key account manager

Petra Kirberger

Freelance worker
PR / support, cooperations and companies

Maik Höhne

Industrial engineer
CO_2 accounting for cruises and air travel

Hanna Schultz

Physicist
Research staff member, CO_2 reporting

Employees in CDM project development

Barbara Wagner

Civil engineer
Development and support for climate protection projects, focus on hydropower

Dr. Robert Müller

Biologist
Development and support for climate protection projects

Xaver Kitzinger

Economic geographer
Support for CDM projects (PoA)

Florian Zerzawy

Geographer
Development and support for climate protection projects, focus on biomass

Maren Kügler

Mechanical engineer
Energy technology, project implementation and controlling

Ahmed Yahaya

Engineer
Project coordinator for Nigeria
.

Katrin Wolf

Geographer
Monitoring of firewood stove projects

Sven Bratschke

M.A. candidate in Global Change Management
Work-study student, CDM project management

Paul Bertheau

M.A. candidate in Global Change Management
Work-study student, CDM project management

Scientific advisory board for atmosfair standards

Christoph Bals

Executive Director for Policy of the North-South organisation Germanwatch,has followed Germany's climate policy with a critical eye for over 15 years

Norbert Gorißen

Leader of the department KI II 7 at the German Federal Ministry for the Environment: financing of international climate protection, internatio-

Franzjosef Schafhausen

Leader of the subdivision KI I at the German Federal Ministry for the Environment: climate protection, environment and energy

Klaus Milke

CEO of Stiftung Zukunftsfähigkeit and Germanwatch, brings experience and business contacts to climate protection

References and partners

References (selection)

Companies

ATKEARNEY · Deutsche Telekom · DOLBY · EHA Energie geht neue Wege · MAIRDUMONT · HSV · GREENPEACE ENERGY · hannover rück · DW-TV · PROVINZIAL Die Versicherung der Sparkassen · ARUP · ERM · Heineken · BDF Beiersdorf · HiPP · BAYER · Miele · FAIRTRADE · MERCK · BILFINGER BERGER

NGOs, politics and associations

Die Bundesregierung · GREENPEACE · Deutsche Umwelthilfe · BÜNDNIS 90 DIE GRÜNEN · GERMANWATCH · NABU · European Environment Agency · LUX DEV · dena Deutsche Energie-Agentur · Wuppertal Institut für Klima, Umwelt, Energie GmbH · care · UNDP · FAO · eed · Landeshauptstadt Düsseldorf · Landeshauptstadt Hannover · Freiburg · Landeshauptstadt München

Climate-friendly events

ITB BERLIN · FIFA · VOLKSWAGEN AKTIENGESELLSCHAFT · die ärzte · welt hunger hilfe · Oxfam · TÜVRheinland · Telefónica

Partners (selection)

Business travel

FCm DER Travel Solutions · BCD travel · Lufthansa City Center · AirPlus · American Express · Carlson Wagonlit Travel

Tourism

forumandersreisen · Tchibo · ISLAND · AER Reisebüro Kooperation · lastminute.de · FRÖSCH · Hapag-Lloyd Kreuzfahrten · vir Verband Internet Reisevertrieb · vamos Eltern-Kind-Reisen · lernenundhelfen · opodo.de und die Reise beginnt · RUF Jugendreisen · travel-to-nature · ebookers.com

Venues

dbb forum berlin · B.O Parkhotel · darmstadtium · congress centrum neue weimarhalle · weimar · ATLANTIC HOTELS · CROWNE PLAZA BERLIN CITY CENTRE · BESONDERE ORTE · Hôtel Concorde Berlin

Climate protection pro-

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit · giz · WFP World Food Programme · DHL GOGREEN · ENVIROFIT · kfw Entwicklungsbank

Prof. Dr. Klaus Töpfer

»Climate protection with atmosfair.«

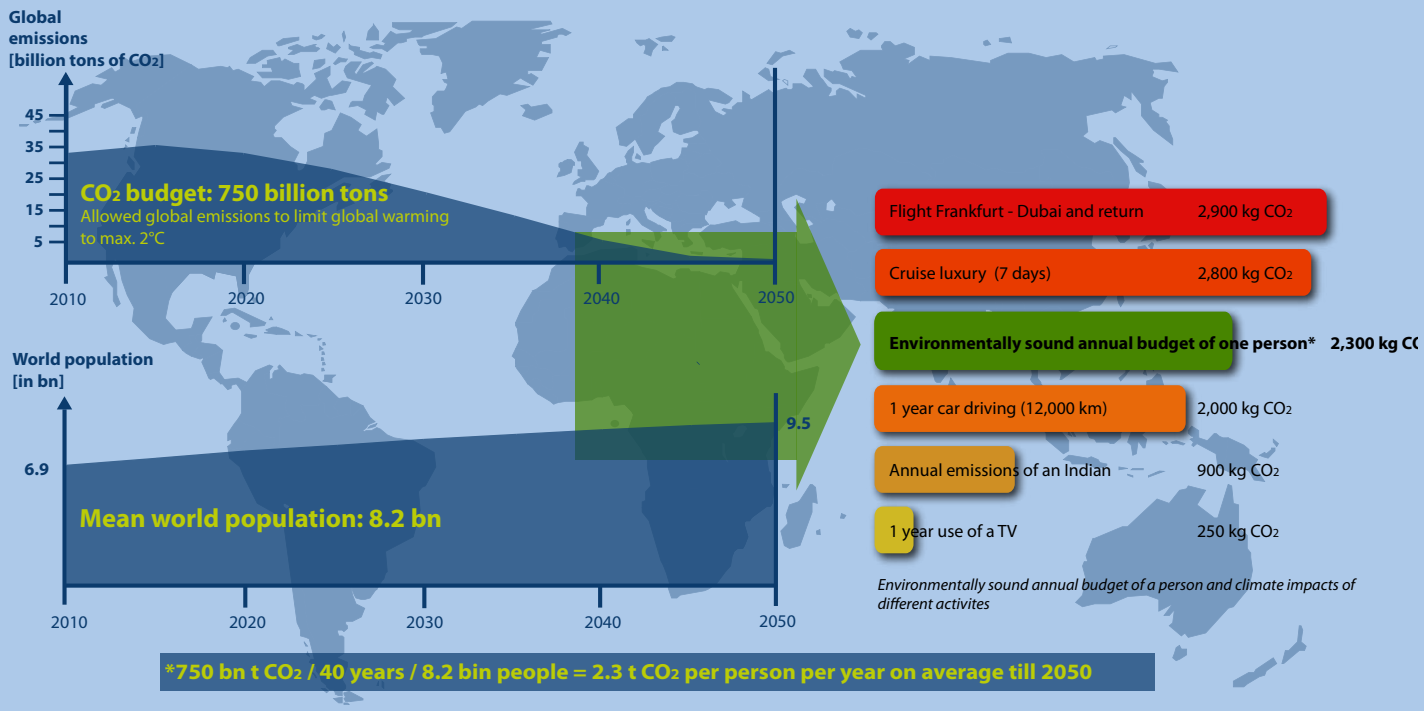
Prof. Dr. Hartmut Graßl

»For now flying can be only targeted with emission offsetting, but then at least with atmosfair.«

Prof. Dr. Mojib Latif

»Flying without atmosfair is like climate without protection.«

Annual Climate Budget and Activities of one Person



Trying to bring the consequences of climate change under control, the global community of states in Cancun agreed to limit the mean global warming to 2°C compared to the level of the pre-industrial age. A global emissions budget of ca. 750 billion tons of CO_2 is left to achieve this target. Considering a mean world population of 8.2 billion people between 2010 and 2050, a single person is allowed to produce emissions which are still acceptable to the climate of on average 2.3 tons of CO_2 per year.

As can be seen from the picture, the climate impacts of single flights or other human activities already reach the level of the annual environmentally sound emissions budget. Accordingly the own budget is covered soon. But if a journey is pending and the best climate friendly alternative (e.g. video conferences or train journeys to close destinations) is not available or suitable, offsetting flight emissions with atmosfair is a first meaningful help for the climate.

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