

think • go climate conscious

# atmosfair



## Annual Report 2009



# 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<sub>2</sub> compensation.



## Approach



## Standards

- Compensation is only the 2nd option; direct CO<sub>2</sub> avoidance is more effective
- Climate protection is more important than the maximization of donation revenues
- Creation of greater public awareness

## Climate protection projects



- Permanent CO<sub>2</sub> reduction
- Contribution to North-South technology transfer
- Additional benefits for local population
- Contribution to local environmental protection

## CO<sub>2</sub> calculation



- Complete
- Scientific
- Documented
- Reviewed

## Organization & finances



- Non-profit, registered charity
- Independent
- Efficient
- Transparent
- Responsible

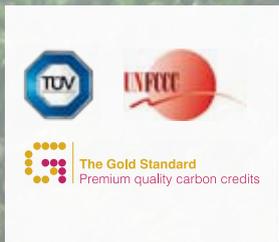
The atmosfair standards serve as a yardstick within the CO<sub>2</sub> compensation market. Every year since 2005, atmosfair has received top rankings in international comparative studies.

*atmosfair solar project in India*

## Implementation

- 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<sub>2</sub> 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

- 100 % CDM + Gold Standard CO<sub>2</sub>-offset projects
- Calculation and monitoring of CO<sub>2</sub> 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



- 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



- 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



*Contrails over  
the Adriatic Sea*

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## Imprint

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Dear Readers,

“Global warming takes a break;” “Climate change time-out;” “Climate experts forecast: stalled global warming” — this was the tenor of the headlines of Germany’s two biggest news weeklies, Spiegel and Focus, in 2009. Meanwhile, we know that despite a relatively cold year in 2008, 2009 will go down in climate history as the second warmest year since weather records began; which also makes the first decade of the new century the warmest in recorded history. What is more, over the past three decades since 1980, NASA has identified a general warming trend of 0.2°C per decade.

atmosfair continued to grow in 2009; our total annual revenue was over 2.6 million euros. This enabled us to finance new offset projects; such as small biomass digesters that are built underground next to the households they service in rural India and convert cow dung into cooking gas.

In addition, atmosfair is covering more new ground in Burkina Faso, with a project financed by the German Ministry of the Environment. We are building a small gasification unit that runs on wood and cotton straw and stalks, which will create electricity for a hospital while saving CO<sub>2</sub> daily. An added plus, the technology stems from India. Many decades ago, similar biomass gasification units were also built in Germany, that were able to generate electricity directly from dry residues. Today, India is the global market leader. Thus, this project helps two causes; since the units are constructed so that local Burkina engineers can be trained to run them themselves. The project was a new experience for atmosfair. One of our colleagues, an expert in biomass technologies, not only oversaw the technical planning of construction in Burkina Faso, but also spent many months in the country training personnel who were able to take the helm after a successful start-up phase.

The sale of CO<sub>2</sub> reporting software for the business travel industry increased atmosfair’s commercial revenues. These revenues supported our non-profit work by—for the first time—enabling us to finance all ad-

ministrative costs such as rent, telecommunication costs, etc. without drawing from donations. Only personnel costs for the administration of the donations themselves were subtracted from contributions. From every euro donated, 92 cents go directly to the design and operation of climate protection projects in developing countries. Only 8 cents are spent on donation management.

In 2009, the University of Graz in Austria compared 30 carbon offset schemes and awarded atmosfair first place. The deciding factors were our CO<sub>2</sub> saving projects, the accuracy of our emissions calculator, and our transparency.

With many heartfelt thanks to all supporters and partners,

Dr. Dietrich Brockhagen

Managing Director



*Dietrich Brockhagen,  
Managing Director*



*“highly recommended” –  
atmosfair receives best rating in  
a 2009 Europe-wide study by the  
University of Graz, Austria.*

## Climate Protection The atmosfair projects

*Start of operations for a gasification unit that generates electricity for a hospital in Burkina Faso from (cotton) residues*



In 2009, atmosfair continued to support new climate protection projects: In India, 5,000 households now produce their own biogas for cooking; in South Africa, the 2010 World Cup host country, atmosfair supported the first commercial wind farm.

atmosfair is also getting more involved in implementing its own climate protection projects, from the initial planning stage through construction and operation. In Burkina Faso, together with the rural community of Pô, we were able to build a small biomass power plant, which supplies the local hospital with electricity generated from cotton harvest residues. Our project that distributes fuel-efficient stoves in Nigeria continues to grow and we are proud to support the first fuel-efficient wood stove project in the world able to register with the UN as a CDM (clean development mechanism) project.

Through this and other projects, atmosfair aims not only to help our climate, but also to provide direct help to people. Most atmosfair projects therefore focus on poor households and creating development opportunities through an improved, cleaner, energy supply. For example, using efficient stoves that require far less firewood not only saves money, but also time that can be invested in education.

# Burkina Faso: Electricity from crop residues generated for a hospital

Dr. Somé is pleased. The rural Burkina doctor just returned from the operation theater. He needed to x-ray and then splint a farmer's broken arm. The operation was successful and Dr. Somé knows: without the electricity from the biomass gasification unit it would have been very difficult. Despite government declarations to the contrary, daily power outages lasting many hours are the norm in rural Burkina Faso.

Electricity supply in the West African agricultural country is inadequate. Most rural households still have no electricity. And where an electricity grid does exist, it is unreliable. Large-scale announced and unannounced power failures are common. This is due to the structure of the electricity grid, which relies on diesel power plants. This creates a dependence on diesel and electricity imports from neighboring countries. Operation is unstable and relatively expensive to maintain. Additionally, electricity is generated from fossil fuels at the expense of the climate.

That's why atmosfair instituted a project in 2008 in Burkina Faso that uses crop residues to generate electricity. We help small communities in Burkina Faso plan and build small power plants that run on wood gasifiers. Since October 2009, a 22 kW plant supplies the Pô community hospital in the south of the country with electricity from previously unused crop residues such as cotton stalks or peanut shells.

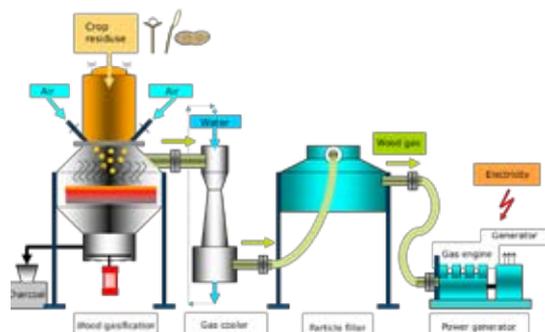


Firing the biomass gasifier

The hospital now has security of energy supply for important medical equipment, air conditioners, and its administrative building. atmosfair's engineer, Jörg Rüdiger, planned the unit, ordered it from the Indian manufacturer, oversaw construction and spent three months training farmers and technicians to operate it. Not only is the technology in Burkina Faso new, but also the transport, storage, and processing of the biomass.

The power plant provides a supplemental income for local small farmers. The waste from the biomass gasification looks like wood coal and can be used as fertilizer. In the long-term, the local economy will be less dependent on imported energy. Also, the power plant is climate-friendly, because electricity is generated without producing CO<sub>2</sub>.

The German Ministry of the Environment (BMU) supports the project through its International Climate Protection Initiative (IKI). By the end of 2010, assessments should be completed, which will enable the building of additional and larger plants.



Technology to generate electricity from crop residues (biomass gasification)

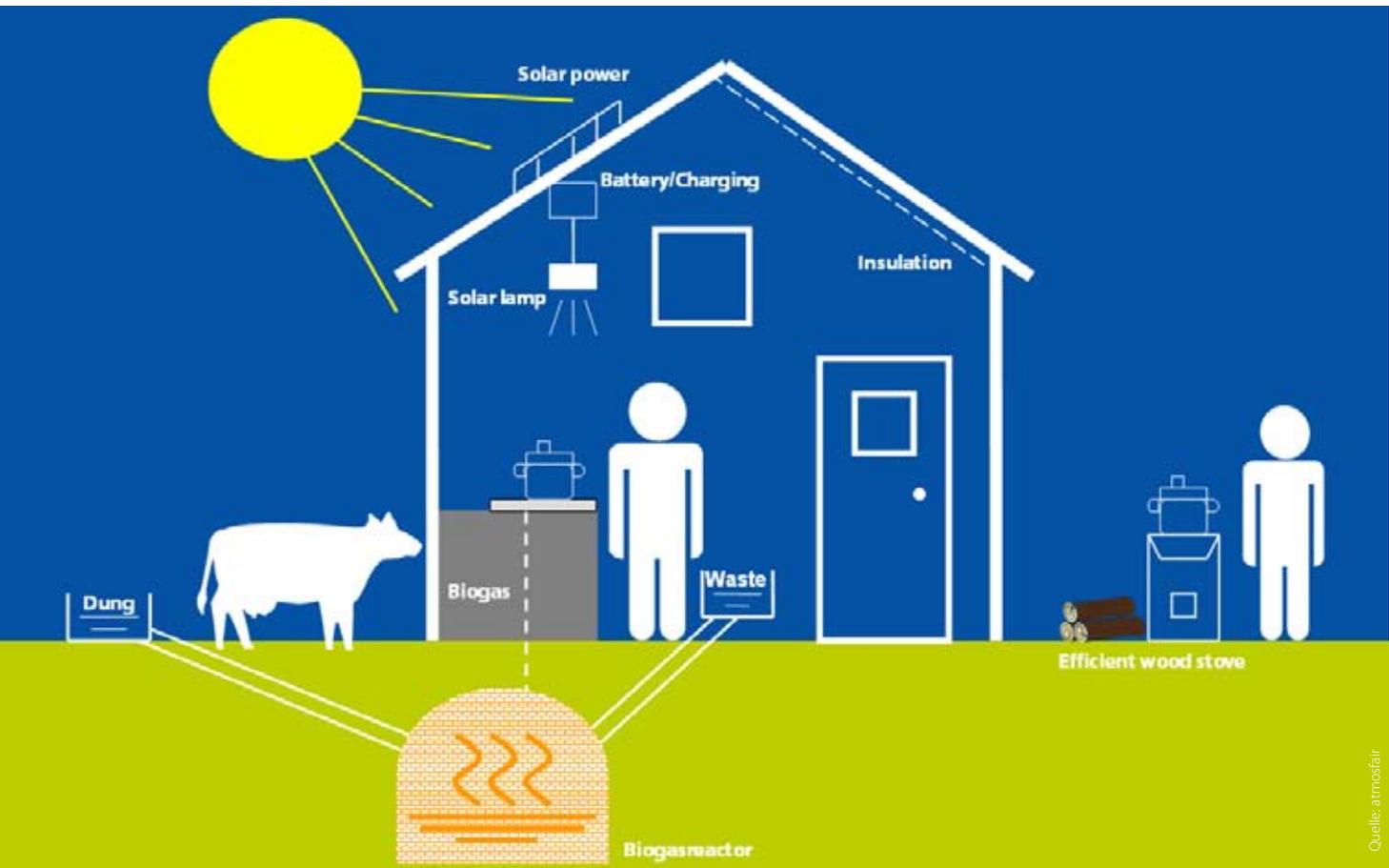
### At a glance

- Climate protection:** Carbon neutral electricity from crop residues (e.g. cotton stalks) instead of diesel fuel
- Local environment:** Waste from the conversion of cotton residues into electricity can be used as fertilizer
- Further advantages:** Added value in a rural area
- Jobs created:** Around 20 (agriculture, transport, technical support)
- Project partners:** Burkina Faso community, German Federal Ministry for the Environment

### And in detail:

Project information at:  
[www.atmosfair.de/en/our-projects/projekte00/burkina-faso/](http://www.atmosfair.de/en/our-projects/projekte00/burkina-faso/)

## Focus: CO<sub>2</sub> saving in private households



Technology for private households—courtesy of atmosfair

The problem is not new: Clean Development Mechanism (CDM) projects that fulfill the strict rules of the United Nations are often large industrial projects that require strong investors and therefore bypass the poorest countries of the world. Furthermore, it is only an exception if local populations profit directly from these technologies. Projects for private households are underrepresented in CDM. They make up only 1% of all projects. The exact and transparent certification of CO<sub>2</sub> reduction by an accredited UN verifier is an enormous hurdle for most small projects. Because of this, one aim of the Kyoto Protocol has fallen by the wayside: the connection of climate protection and local sustainable development.

That's why atmosfair also focuses on developing offset projects for private households that adhere to CDM rules. We support the construction of small biogas digesters in India, the replacement of kerosene lamps with solar lamps (also in India), and the distribution of fuel-efficient wood stoves in Nigeria. This way, people profit directly from climate protection. But the price is high: Every year, UN verifiers conduct spot checks that require an elaborate data acquisition process in order to calculate CO<sub>2</sub> savings exactly.

atmosfair took part in the UN public participation program to demand less complicated procedures for small-scale private household projects. And we were successful: The methods for calculating emissions from fuel-efficient wood stoves were simplified. More conservative standards and basic data acquisition reduced the necessary effort. But lowering the bar for the exactness of data should not compromise environmental integrity. Whoever dispenses complex data acquisition must be prepared to accept lower emissions savings. There has been further progress in the UN system: The registration process for so-called programmes of activities (PoAs) was more clearly defined in 2009. PoAs permit the addition of project activities (for example new household gasifiers) to larger long-term CDM projects. This makes allowances for the gradual build-up inherent to private household projects. atmosfair made a request for the registration of one PoA and designed another PoA on composting organic waste for our project partner BORDA in Indonesia (page 20).

# Private household project I: Small biogas digesters for Indian homes

## Small biogas digesters for India

The Kolar district of the southwestern federal state of Karnataka is a semi-arid region where the land is mostly cultivated by family farmers. The scarcity of natural resources makes cultivation and management of the land difficult and forces the women to walk many kilometers each day in search of firewood. Wood is used mostly for cooking; each family consumes one to three kilos of wood daily. The current rate of logging usually makes reforestation impossible. Altogether, three quarters of the firewood in the region is from non-renewable raw materials. Aside from wood, kerosene is also used for cooking.

Small biogas digesters (2 m<sup>3</sup>) that can be produced locally replace wood and kerosene with renewable biogas. The gas is produced by converting agricultural waste, usually cow dung. Cow dung is collected in clay brick containers built directly under the ground. With no production of fumes, the dung ferments to gas that can then be used for cooking. The biogas digesters are sturdy, easy to use, and rarely in need of servicing.

The advantages are clear: Deforestation is slowed and tree growth is promoted. As a byproduct, a substrate rich in nutrients is produced that can be used as agricultural fertilizer. The use of biogas means the health of women and children is no longer threatened by dangerous particles from open kitchen fires. To this day, because of inefficient fires in traditional ovens, more



Quelle: atmosfair GmbH

*Cow dung is fermented in underground biogas digesters, producing an almost odorless gas.*

women in India die from lung diseases than from malaria.

The biogas digesters are sold and constructed by the atmosfair project partners Women for Sustainable Development and ADATS. Both NGOs have long been active in development projects in the region. Over a project duration of 7 years, to date 5,500 biogas digesters have been built. The project is a registered Gold Standard CDM project and saves an average of 19,000 tons of CO<sub>2</sub> per year.

### At a glance:

Total savings:	19,000 tons CO <sub>2</sub> annually, for 7 years
Local environment:	Energy from renewable resources and averting deforestation
Further advantages:	Prevents harmful air particles, biogas residues can be used as fertilizer
Project partners:	Women for Sustainable Development, Agricultural Development and Trading Society (ADATS)

### And in detail:

Project information at:  
[www.atmosfair.de/en/our-projects/projekte00/india-biogas-digesters/](http://www.atmosfair.de/en/our-projects/projekte00/india-biogas-digesters/)



Quelle: atmosfair GmbH

*atmosfair project India: Biogas for cooking*

## Private household project II: Solar lamps for Indian homes

### Uttar Pradesh and Bihar, India

In many rural areas of India, the supply of electricity is inadequate or nonexistent. Over 80% of the population in the rural federal states of Uttar Pradesh and Bihar are forced to use kerosene lamps for light, that results in insufficient light and health problems due to open fires.

That's why atmosfair is supporting D.light Energy, an Indian-based company that sells solar LED lamps. Our local project partner was able to sell half a million lamps in the past three years—and the numbers are rising. A portion of these sales was aided by atmosfair; we registered this project with the UN Climate Secretariat in October 2009. Approximately 30,000 tons of CO<sub>2</sub> will be saved annually through this project.

### Monitoring CO<sub>2</sub> savings via cell phones

D.light has been able to implement the monitoring and verification system required by the UN using a particularly innovative measure. Clients are registered and receive their guarantee via text message. After buying a solar LED lamp, the client texts the lamp's serial number to D.light. This activates registration of the product and the product guarantee. In this way the company can continuously monitor not only client satisfaction, but also the exact location of every product sold.



Homework by D.light lamp



Homework by kerosene lamp

### Ashden Award for D.light

The LED lamps allow people to continue with their daily activities after sundown, without adverse effects. The lamps are reliable and—as an alternative to kerosene lamps—not only protect the environment, but also greatly reduce potential health hazards. For their contribution to sustainable energy with the sale of affordable solar lamps, D.light recently received the prestigious Ashden Award.

#### At a glance:

Total savings:	30,000 tons of CO <sub>2</sub> annually (ca. 0.1 t CO <sub>2</sub> per lamp per year), averaged over the duration of the project until 2019
Local environment:	Replacement of fossil fuels, reduced smoke, reduced fire risk
Further advantages:	Energy independence, lower household expenditures
Jobs created:	20 in marketing and product development, additional jobs in sales
Project partner:	D.light Energy

#### And in detail:

Project information at:  
[www.atmosfair.de/en/our-projects/projekte00/india-dlight/](http://www.atmosfair.de/en/our-projects/projekte00/india-dlight/)

## Private household project III: Fuel-efficient wood stoves in Nigeria

### Nigeria: fuel-efficient wood stoves

In October 2009, this atmosfair project in Nigeria was the first wood stove project to be registered with the UN Climate Secretariat. Gold Standard registration followed in January 2010. Thus, atmosfair made an international breakthrough. Project supervisor Florian Zerzawy presented the new CDM methodology at an international UN workshop in Bonn.

To date, around 2,000 SAVE80 wood stoves have been assembled and distributed in Nigeria. This is only a drop in the ocean in light of the 500 million families around the globe that rely on old inefficient cooking methods such as three stone fires. Parallel with distribution of the stoves, atmosfair and our Nigerian project partner DARE are building a monitoring system. DARE registers all families that buy a SAVE80 stove and is preparing the first validation by the certified verifier, TÜV.

We surmounted many difficulties in 2009: The stoves were unable to leave the harbor in Lagos for over six months because atmosfair refused to pay the bribes that are common in Nigeria. Our partner DARE was unable to deliver to its clients and was even forced to temporarily dismiss assembly and delivery workers. SAVE80 wood stoves use 80% less energy than traditional three stone fires. Thus, they reduce deforestation, produce less harmful substances, and prevent eye infections from soot or smoke. We expect a CO<sub>2</sub> savings



Nigeria: Young people learn to assemble the SAVE80

of around two tons of CO<sub>2</sub> per stove per year. To put it into perspective, one stove saves as much CO<sub>2</sub> as an average German car produces annually.

### atmosfair creates monitoring plan for GTZ stove program in Africa.

The government-owned German international cooperation corporation, GTZ, was also interested in atmosfair's Nigerian project. atmosfair helped the GTZ develop a monitoring plan for a GTZ CDM program in ten southern African countries, which aims to distribute fuel-efficient wood and coal stoves to private households and institutions such as bakeries, schools, and hospitals. In Malawi for example, villagers built clay ovens that reduced wood consumption by up to 40%.



Building a wood-fired clay oven in Malawi

## Wind for the host of the 2010 World Cup



The Darling Wind Farm has been generating climate-friendly electricity since 2008

### Western Cape, South Africa

The Oelsner Group, located in South Africa, has long been a pioneer in wind power and has successfully managed South Africa's first demonstration wind project—the Darling Wind Farm in Western Cape—since 2008. The Oelsner Group is now planning to build the Kerrifontein Wind Farm adjacent to Darling Wind Farm; ten more wind turbines with a nominal rating of 1.3–1.5 MW each. The plot is currently used for agriculture, (in particular livestock breeding) which is optimal for the integration of the wind farm.

The area around the Cape of Good Hope boasts consistent strong winds, providing ideal conditions for wind power. But conversion to renewable energy sources in South Africa is slow. Local coal still fuels around 93% of all electricity generated.

atmosfair is supporting this project by financing the environmental impact study. In addition, we will oversee the CDM Gold Standard registration. Construction of the Kerrifontein Wind Farm is planned to begin in mid-2011. With an operational lifetime of around 20



The Kerrifontein Wind Farm is planned to be built adjacent to the Darling Wind Farm.

years, the project will save approximately 30,000 tons of CO<sub>2</sub> per year.

The construction and operation of the wind farm will create numerous jobs and depends primarily upon local infrastructure (building substances, streets, transformers, cables, etc.).

The turbines will be imported from Germany. Additionally a training and information center will be built to promote the transfer of technical and economic know-how to students and technicians; thus, it will promote the spread of this technology throughout South Africa.

#### At a glance:

Total savings:	Around 30,000 tons of CO <sub>2</sub> annually for 10 years
Local environment:	Replacement of fossil fuels
Technology transfer:	Wind turbines from Germany, all other technology made locally
Further advantages:	Climate education at local information center
Project partner:	Oelsner Group
Start of construction:	mid-2011

#### And in detail:

Project information at:  
[www.atmosfair.de/index.php?id=334](http://www.atmosfair.de/index.php?id=334)

## Ongoing projects

### India: Electricity from biomass

This 8 MW power plant in the northern federal state of Rajasthan, which is in operation since 2007, saved more than 19,000 tons of CO<sub>2</sub> in the five months after it was registered with the UN Climate Secretariat in October 2008. The verifier, TÜV, validated these numbers and requested certification by the UN. In 2009, the plant ran at full capacity almost continuously, feeding more than 5,000 MWh of electricity into the grid each month. This is enough to meet the energy needs of around 40,000 people in India without producing CO<sub>2</sub>.

The power plant consumes 7,000 to 9,000 tons of mustard cultivation residues per month. In the past year local farmers sold the residues to the plant at a price between 10 and 15 euros per ton. This provided total revenues of approximately 1.6 million euros for around 10,000 farmers.



India: Farmers harvesting mustard



Thailand: Biogas plant

### Small hydropower plant in Honduras

The small hydroelectric plant near Esperanza continued to run smoothly in 2009. Once again we saw how important atmosfair payments often are to the success of a project. After a severe drought in Central America in the last six months of 2009, less hydropower electricity was produced than expected, lowering projected revenues. The operator was only able to meet current liabilities with the help of atmosfair payments.

The project also continued its environmental activities, including reforestation of the surrounding slopes and the protection of local fauna. At the same time, the community received support for the repair of the power grid.

### Thailand: Biogas from wastewater

A plastic membrane over the wastewater treatment pond near the palm oil mill in the south of Thailand in Chumphon traps methane and uses it to produce process heat. Methane is 21 times more powerful of a greenhouse gas than CO<sub>2</sub>. The project was recognized by the UN Climate Secretariat in February 2009 and shortly thereafter by the Gold Standard Foundation.

A preliminary verification by *Germanischer Lloyd* led to changes in the initial monitoring plan. Data was not collected from every originally foreseen location and was acquired in other intervals than first planned. Project operators therefore needed to apply for a renewed UN Climate Secretariat authorization of the new monitoring plan. For atmosfair this means that the number of verified reduced tons of CO<sub>2</sub> will be lower than anticipated in 2009 and most likely in 2010 as well. This has been taken into account in our CO<sub>2</sub> balance sheet (page 17).



Honduras: Small hydroelectric plant

## Further ongoing projects

### Irrigation in rural southeast China

Sixty-five hydraulic rams continue to help small-scale farmers in the Zhejiang province irrigate their fields, which has led to savings of around 400 tons of CO<sub>2</sub> in 2009 and to improved tea and rice harvests. However, atmosfair did not finance further hydraulic rams in 2009 because the Chinese CDM authority has yet to authorize the project. Up to now, for formal reasons, China has not authorized a single programmatic CDM project.

atmosfair will not count the carbon savings accumulated in the project without project registration, instead we will achieve our saving obligations through other projects.



*Irrigation system, China*



*Water pump for salt mining with lower diesel consumption due to small technical modifications*

### India: Fuel-efficient water pumps

In 2008, atmosfair helped the Practica Foundation design a concept for improving the efficiency of thousands of diesel water pumps in India, which saved CO<sub>2</sub> for the environment and fuel costs for small farmers. Our findings however, were that short and uneven operating periods make it difficult to assess the exact CO<sub>2</sub> savings. atmosfair and Practica are therefore now assessing cooperation with around 30,000 so-called salt farmers in the Gujarat Desert who pump salty groundwater and allow it to evaporate in the sun. The operating times of these pumps are longer and more unified, making greater savings possible. This project is still in an early development phase.

### India: Solar kitchens

The solar kitchens installed in an atmosfair project in India are still in operation and saving CO<sub>2</sub>. The project is registered under the CDM Gold Standard; however in the course of the project site and technical details were altered, making it necessary to, to a large extent, repeat the UN approval process in order to verify the exact carbon savings. The costs for approval are disproportionate to the CO<sub>2</sub> savings (a few hundred tons), therefore atmosfair has decided to waive official certification and will not count this CO<sub>2</sub> reduction. We will achieve the CO<sub>2</sub> savings needed for offset through other projects.



*India: Solar mirrors to produce steam*

# CDM verification and monitoring

## High hurdle CDM...

atmosfair is the only carbon offsetter that registers all projects world-wide with the UN clean development mechanism (CDM) as well as with the Gold Standard. We do so because no other certification offers the same transparency, accountability, and participation during the validation and certification processes.

- Transparency: All CDM project planning documents, from technical specifications to approval by the project country government are—independently of atmosfair—made available to the public on UN websites by the verifiers and by UN committees. For each project, these include hundreds of pages in which all delicate questions about the project must be answered, for example the question of so-called additionality (see page X).

- Accountability: CDM Project verifiers must be accredited and reviewed by the UN, they are also liable for every ton of CO<sub>2</sub> they verify. More than once verifiers have had to pay for estimating savings too high, leading to very stringent evaluations.

- Participation: During the CDM validation process, first the local population and subsequently any individual or organization in the world may raise objections (similar to official planning approval procedures in Germany). Verifiers must deal with these objections in their reports.

## ... sometimes too high

But the CDM also has disadvantages. There are long waiting periods for CO<sub>2</sub> certification and the procedure is overcomplicated for very small projects. On the opposite page two projects are presented for which atmosfair does not count the carbon reduction because the CO<sub>2</sub> savings achieved are too small to merit the expense of CDM verification. In one case, atmosfair got lost in Chinese red tape; otherwise, atmosfair would have to resubmit many documents and reformulate them with the project managers, because location and technical details have changed.

Nevertheless, atmosfair currently sees no alternative to the CDM and will continue to engage in helping to improve the CDM while also discussing alternative designs.

## Typical progression of a CDM Gold Standard project

Interactions between atmosfair, its partners and public agencies, pre-established time frames



# A short overview of atmosfair climate protection projects

India: Solar thermal energy



## Operation

- Facilities are operating at 19 sites
- CDM Gold Standard registration is completed
- Verification of CO<sub>2</sub> amounts no longer sought due to excessive costs

India: Solar lamps



## Operation

- Contract with D.light Energy signed
- Lamp sales have begun
- CDM Gold Standard registration completed

Thailand: Biogas from wastewater



## Operation

- Plant in operation
- CDM Gold Standard registration is completed
- Preliminary CDM Gold Standard verification by Germanischer Lloyd completed

India: Biogas digesters



## Operation

- 5,500 digesters in operation
- CDM Gold Standard registration completed
- First periodic CDM Gold Standard verification completed

Honduras: Small hydroelectric plant



## Operation

- Plant in operation
- CDM Gold Standard registration is completed
- Fourth periodic CDM Gold Standard verification in preparation

Burkina Faso: Green electricity from crop residues



## Operation

- Feasibility study completed
- Financial plan completed
- Framework agreement reached with local governing body
- Plant delivered and running

India: Electricity from crop residues



## Operation

- Plant in operation
- CDM Gold Standard registration is completed
- First periodic CDM Gold Standard verification completed

South Africa: Wind power



## Planning

- Contractual agreement with Oelsner Group
- Environmental impact study commissioned
- CDM-Gold-Standard in preparation

China: Hydraulic rams



## Operation

- 65 pumps in operation
- CDM Gold Standard registration currently dormant (Chinese authority awaiting policy decision by the government)

India: Fuel-efficient irrigation pumps



## Planning

- Contract with PRACTICA signed
- Implementation strategy in development.

Nigeria: Fuel-efficient wood stoves



## Operation

- Sale and use of stoves ongoing
- CDM Gold Standard registration completed
- First CDM Gold Standard verification by the TÜV prepared

Date: June 2010

# Planning portfolio

## Greenhouse gas reduction, achieved or contracted (1,000 tons of CO<sub>2</sub>)

	2006	2007	2008	2009	2010	2011	2012-2020	Total until 2020
<b>India: Solar thermal systems<sup>1</sup></b>	(0,1)	(0,1)	(0,3)	(0,5)	(0,5)			<b>(0)</b>
<b>Thailand: Biogas from wastewater</b>				2,0	7,0	12,0	85,0	<b>106</b>
<b>Honduras: Small hydropower plant</b>	15,0	13,0	20,0	10,0	25,0	25,0	25,0	<b>133</b>
<b>India: Electricity from crop residues</b>			11,0	45,0	35,0	35,0	35,0	<b>161</b>
<b>China: Hydraulic rams</b>					0,5	0,6	4,6	<b>6</b>
<b>Nigeria: Fuel-efficient wood stoves</b>				0,5	4,0	14,0	285,0	<b>304</b>
<b>Indien: Solar lamps</b>					1,0	6,0	23,0	<b>30</b>
<b>Indien: Biogas digesters for households</b>			14,0	11,0				<b>25</b>
<b>South Africa: Wind Power</b>							96,0	<b>96</b>
<b>Total</b>	<b>15,0</b>	<b>13,0</b>	<b>45,0</b>	<b>68,5</b>	<b>72,5</b>	<b>92,6</b>	<b>553,6</b>	<b>764</b>
<b>Obligation for CO<sub>2</sub> reduction from offset revenues<sup>2</sup></b>	<b>0,0</b>	<b>9,5</b>	<b>9,5</b>	<b>63,5</b>	<b>88,6</b>	<b>92,2</b>		
<b>Accumulated obligation for CO<sub>2</sub> reduction<sup>2</sup></b>	<b>0,0</b>	<b>9,5</b>	<b>19</b>	<b>82,5</b>	<b>171,1</b>	<b>263,3</b>		
<b>Accumulated CO<sub>2</sub> reduction, achieved or contracted</b>	<b>15,0</b>	<b>28,0</b>	<b>73,0</b>	<b>141,5</b>	<b>214,0</b>	<b>306,6</b>		
<b>Fulfillment of obligation</b>	✓	✓	✓	✓	✓	✓		

In 1,000 tons of CO<sub>2</sub>

Projects in the planning stage are not included. The project in Burkina Faso is not included, since the CO<sub>2</sub> reductions are counted towards the German Federal Ministry of the Environment's Climate Protection Initiative.

<sup>1</sup> Numbers in parentheses mean that the project is in operation, but atmosfair does not count the CO<sub>2</sub> reduction because formal CDM verification is prohibitively expensive for a small project.

<sup>2</sup> It can take up to two years before donations are sent to a climate protection project. Therefore, reduction obligations in 2011 are calculated from revenues in 2009.

### atmosfair project types

#### Electricity from biomass

- Combustion
- Gasification
- Pelletizing

#### Energy efficiency in private households

- Stoves
- Lamps
- Insulation

#### Solar energy

- Solar thermal energy
- Photovoltaics

#### Small hydroelectric plants

### atmosfair standards

#### Combination of two international certification systems:

- CDM: Clean Development Mechanism (UN)
- Gold Standard (WWF et al.)

#### No forestation projects

#### Real, long-term support of local development (i.e. poverty alleviation)

#### Simple, innovative technologies

- Transfer
- Integration in local structures
- Dissemination

## Obligation fulfilled

The table shows the contractual obligation to reduce greenhouse gases that each atmosfair project has fulfilled or promised to fulfill. These are contrasted with the CO<sub>2</sub> reductions the project must achieve so that atmosfair can fulfill its obligation towards our offset clients. Between the date of donation and the CO<sub>2</sub> reduction there may be a time lapse of up to two years,

because each offset project has a long start-up phase (see page 15). The comparison of CO<sub>2</sub> reduction obligations resulting from offset fees and the actual or contractual greenhouse gas reductions achieved through the projects shows that atmosfair has been able to fulfill all obligations since the start of operations in 2005.

## Offset project standards

In 2009, we were often asked about our standards. That's why we have compiled an overview of the most important differences between various standards for planning and operating carbon offset projects. The Voluntary Carbon Standard (VCS) is merely exemplary of the many standards for Verified Emissions Reduction projects (VER) often used in voluntary offset schemes. The Swiss Gold Standard Foundation has two Gold Standards, one for VER projects and one for CDM projects (UN clean development mechanism). All atmosfair climate protection projects are certified according to the CDM Gold Standard.

	VCS* (VER)	VER** Gold Standard	CDM***	CDM Gold Standard
<b>Organization</b>				
<b>Highest decision-making body</b>	VCS	Gold Standard Foundation in Switzerland	UNFCCC Conference of the parties (192 countries)	UNFCCC Conference of the parties (192 countries) for CDM + Gold Standard Foundation (Switzerland)
<b>Authorization by project country</b>	Not necessary	Not necessary	Government authority must give permission	Government authority must give permission
<b>CO2 reduction registry</b>	VCS registry	VER Gold Standard registry	UN and national environmental authorities registries	UN and national environmental authorities registries
<b>Public hearing</b>	Not compulsory	Supporters of the Gold Standard may raise objections	The global public may raise objections via the internet 4–8 weeks after publication, verifiers must show that they have taken objections into account	The global public may raise objections via the internet 4–8 weeks after publication, verifiers must show that they have taken objections into account
<b>Participation of the local population</b>	Not compulsory	Mandatory stakeholder meeting	Mandatory public hearing	Mandatory stakeholder meeting
<b>Transparency</b>	Via the VCS website	Via Gold Standard website: technical documentation, verification reports	Via the UN website: technical documentation, verification reports, emission calculations, government authorization, objections, UN decisions	Via the UN website: technical documentation, verification reports, emission calculations, government authorization, objections, UN decisions
<b>Projects</b>				
<b>Restriction of technologies</b>	None	Only renewable energy sources (with conditions) and energy efficiency	All technologies except nuclear power. Forestation projects only with strict limitations	Only renewable energy sources (with limitations) and energy efficiency
<b>Proof of additionality (that support of the offset project makes the project possible)</b>	Overcoming one of three barriers: <ul style="list-style-type: none"> <li>Technology</li> <li>Institution</li> <li>Investment</li> </ul>	Mandatory for all projects: <ul style="list-style-type: none"> <li>Detailed calculation of investment</li> <li>Is the project already common practice?</li> <li>Was the project initially planned as a VER Gold Standard project?</li> </ul>	Mandatory for large projects, optional for small projects: <ul style="list-style-type: none"> <li>Detailed calculation of investment</li> <li>Is the project already common practice?</li> <li>Was the project planned as a CDM project from the start?</li> </ul>	Mandatory for all projects: <ul style="list-style-type: none"> <li>detailed calculation of investment</li> <li>Is the project already common practice?</li> <li>Was the project planned as a CDM project from the start?</li> </ul>
<b>Sustainability criteria</b>	None	Comprehensive social, economic and environmental sustainability criteria	Project country verifies adherence to national sustainability goals	Comprehensive social, economic and environmental sustainability criteria
<b>Verification / legal status</b>				
<b>Who can verify projects?</b>	Verifiers from a program recognized by VCS	For projects under 5,000 tons of CO2/year Gold Standard, otherwise like CDM	UN accredited verifiers, rotating verification by the UN, spot checks, suspension of verifiers possible at any time	UN accredited verifiers, rotating verification by the UN, spot checks, suspension of verifiers possible at any time
<b>Verifier liability</b>	None	None	To the full extent for each ton of CO2 savings certified	To the full extent for each ton of CO2 savings certified
<b>Legal acceptance of CO2 savings</b>	Only for voluntary offsets	Only for voluntary offsets	For compulsory legal systems (i.e. EU emissions trading scheme) and voluntary offset schemes	For compulsory legal systems (i.e. EU emissions trading scheme) and voluntary offset schemes

3

\* VCS = Voluntary Carbon Standard; \*\* VER = Verified Emission Reduction; \*\*\*CDM = Clean Development Mechanism of the UNFCCC

## Projects in Germany: Fifty-Fifty and Energy-saving champion

atmosfair supports projects in Germany, but does not count the CO<sub>2</sub> savings, because these are already included in the Kyoto system and counted as part of Germany's CO<sub>2</sub> inventory.

### Schools as climate protectors: Energy-saving champions from Bremerhaven and Neutraubling

As part of a German national competition "Energiesparmeister" (energy-saving champion), atmosfair sponsors one school each year. Out of around 200 participating schools, a jury of experts chooses ten energy-saving champions that make a noteworthy contribution to climate protection. In 2009, atmosfair gave financial support to the Gymnasium Neutraubling so that they could build solar panels on the roof of their school. The solar panels generate around 1,000 kWh of green electricity per year. The panels are operated by the school's non-profit organization to promote climate protection and solar energy: the Klimaschutz- und Solarförderverein.

atmosfair will also sponsor a school in 2010, most likely a (special) elementary school in Bremerhaven. How atmosfair's financial support will be used is still in discussion. One idea is a small wind power plant, or the installation of solar panels on the roof of the carport for wheelchair accessible vehicles. The competition is a joint action by "Klima sucht Schutz" (Climate Seeks Protection), "ZDF Umwelt" and the German Federal Ministry of the Environment and is managed by co2online.

More information (in German) at: [www.energiesparmeister.de](http://www.energiesparmeister.de)



*The solar panels produce green electricity in winter as well*



*The Fifty-Fifty initiative: Pupils learn the sparing use of water by taking measurements*

### Climate education: the Fifty-Fifty initiative

In 2009, atmosfair continued its commitment to raising climate awareness in German schools. Our contribution pays for external energy consultants to go into schools and create and train energy-saving teams made up of pupils, teachers, and custodians. Participating schools get to keep 50% of the costs thus saved to use at their discretion. The remaining 50% is kept by the school authorities.

Climate and energy are studied during class and are the focus of special project days, working groups and school trips. Pupils, teachers, and custodians must meet the challenge of saving heat and electricity using simple energy-saving measures. The focus is not on measures that require major investments, such as insulation, new windows, or the installation of a modern heating system, but on the daily use of thermostats, lights, other electrical devices as well as on airing rooms correctly. The correct use of the heating, electricity and regulating technology at hand is of the essence.

atmosfair shares its expertise in the development of climate protection projects with its partners. This enables higher revenues and opens opportunities for the creation of new offset projects together with our partners

For WECF (Women in Europe for a Common Future), atmosfair conducted a feasibility study on financing sustainable energy for private households through the CDM mechanism, with a focus on the Caucasus and Central Asia. The study can be downloaded from the atmosfair website. We identified two promising future climate protection projects: the installation of solar water heaters in rural Georgia and efficient stoves in Kyrgyzstan.

WECF and atmosfair are also cooperating on the policy level to achieve better conditions for private household projects within the CDM mechanism. To this end we have written various petitions and, among other measures, organized a side event at the Climate Conference in Copenhagen.

Together with BORDA (Bremen Overseas Development Agency), atmosfair is designing a composting project in Indonesia as a programmatic CDM project. In large Indonesian cities, local NGOs from the BORDA network support small recycling centers managed by local village and community groups. The waste is collected, sorted and, whenever possible, reused. Inorganic waste that cannot be reused is disposed of. Organic waste—which was previously allowed to rot, and release large amounts of the greenhouse gas methane—is now



*Composting organic waste*

composted. Project documentation has already been published on the UN Climate Secretariat website. Project operation and further steps towards CDM validation are planned for 2010.

atmosfair would like to finance the project through CO<sub>2</sub> savings. At the moment, composting projects are not accepted as Gold Standard; however this rule may well be revised because atmosfair and BORDA were able to prove that the project makes a model contribution to sustainable development.

The study “Feasibility of CDM funding for household and community level projects” can be downloaded here:

<https://www.atmosfair.de/en/about-us/media-materials/scientific-studies/>



*Household in Kyrgyzstan*



*Stakeholder meeting on the compost project in Indonesia*

## atmosfair post-2012—Air traffic in the EU emissions trading scheme

### Aviation: Why EU emissions trading doesn't make atmosfair superfluous

Starting in 2012, all airlines that land at or start from EU airports must have an allowance for their CO<sub>2</sub> emissions. Around 85% of these allowances will be allocated free of charge based on 2004–2006 emissions, the airlines will have to buy the remaining 15%. This is stipulated in the new EU-Emissions Trading Directive approved in 2008 that now includes air traffic in the emissions trading scheme (ETS). For the first time, there will be an EU-wide regulation of air traffic emissions. Until 2020, the budget for aviation allowances shall be capped at the 2004–2006 level. Since CO<sub>2</sub> emissions from air traffic have been growing continuously in past years, the airlines will have to buy allowances from other members of the trading system, for example power companies.

Unfortunately, from an environmental point of view, the new EU Directive has many weak points. Firstly, it does not regulate all greenhouse gases, but only CO<sub>2</sub> emissions, which currently make up only around a third of the climate burden caused by air traffic (the rest stems from cloud formation and the creation of ozone at high altitudes). Furthermore, airlines can meet around half of their CO<sub>2</sub> reduction targets by financing projects in developing countries that do not meet the standards atmosfair has set itself, in particular not the Gold Standard, which ensures that not only the climate, but also the local population is helped.

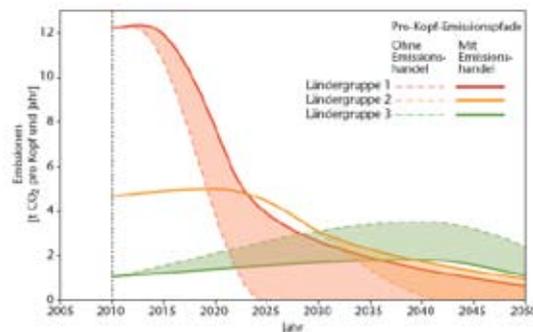
The most serious misgivings are however related to the uncertain future of the EU's ETS. The scheme only regulates the total amount of CO<sub>2</sub> allowed until 2020. In 2008 and 2009, emissions fell significantly short of this mark, because industrial energy consumption sank due to the European recession. Since CO<sub>2</sub> emissions sank, companies were able to save up allowances in the ETS. Therefore, depending on the speed of economic recovery, EU companies will not need to make any more efforts to reduce greenhouse gas emissions before around 2015.

Airlines will also profit from this situation and will be able to buy inexpensive allowances from other sectors to secure continued growth.



Air traffic: Included in the EU emissions trading scheme as of 2012

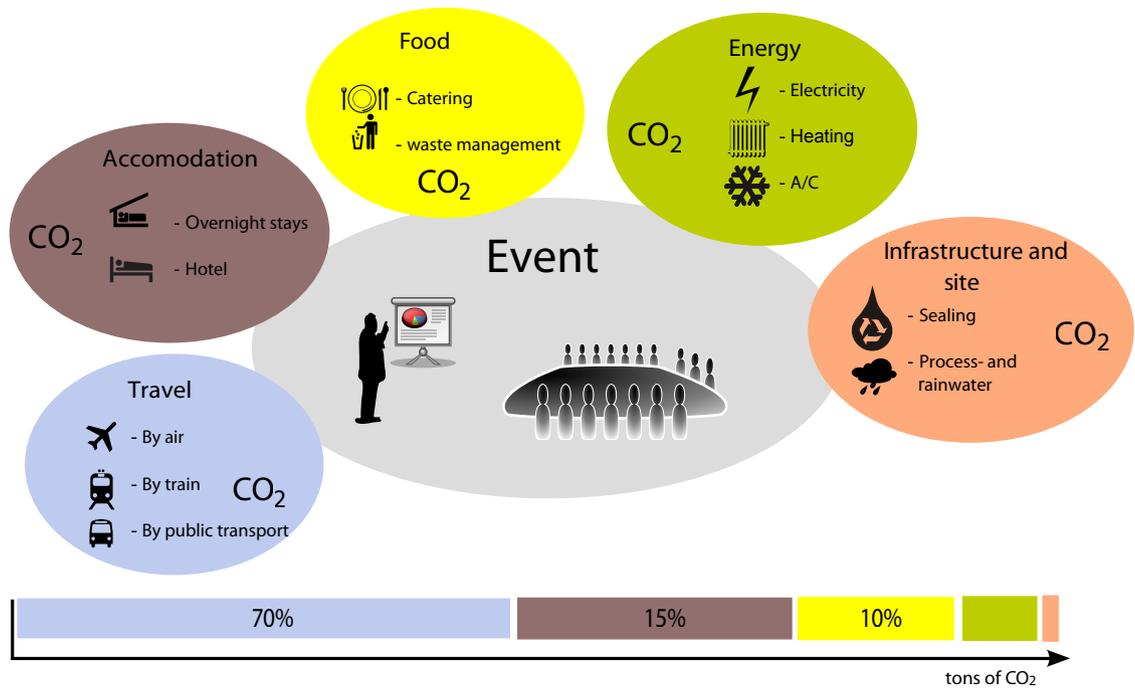
atmosfair believes that voluntary offsetting will no longer be necessary when the aviation industry has embarked upon a true climate saving path. In light of its weaknesses, we remain however skeptical that the ETS—and with it the aviation sector—will be able to reduce CO<sub>2</sub> emissions with the necessary speed as illustrated by the reduction path shown below. Until this is ensured, we offer you the opportunity to offset, including contrails and ozone formation—through offset projects that don't have loopholes and do provide additional benefits to people as well.



CO<sub>2</sub> from country group 1 (industrialized countries, red line) including the majority of worldwide air traffic. To reach the 2° goal, these emissions must sink to the level shown, even when accounting for emissions trading with developing countries (country group 3).

Source: WBGU, Solving the climate dilemma: The budget approach, 2009

# Tourism Business trips and climate-friendly events



## Identifying event emissions

“Green meetings” and “climate-friendly events” are increasingly popular in the MICE (Meetings, Incentives, Conferences und Events) industry. atmosfair has seized the opportunity offered by this increased awareness and designed a CO<sub>2</sub> calculator for events. Frequent travel—often by plane, heating and air conditioning, catering, and electricity consumption all contribute to climate change caused by events and conferences. For events such as the annual conference of the African Development Bank or the concert tour of the German rock band Die Toten Hosen, atmosfair designed a climate protection concept.

First and foremost, organizations should try to avoid greenhouse gas emissions. With the help of incentives such as integrated train or public transportation tickets, CO<sub>2</sub> emissions for travel to and from events can be significantly reduced. Regional catering strengthens the local economy, is attractive for foreign participants, and is also climate-friendly.

think • go climate conscious

atmosfair

climate-friendly event

From the conference hall to the hotel, an energy audit can help providers identify energy-saving potentials. Long-term measures such as installing condensing boilers or using hybrid company cars can bring significant and permanent CO<sub>2</sub> emission reductions. Green electricity can make the electricity supply virtually carbon free. Atmosfair helps the MICE industry plan and implement these steps. Greenhouse gas emissions providers are unable to avoid can be offset through atmosfair.

# The atmosfair event emissions calculator

## New: The atmosfair event emissions calculator

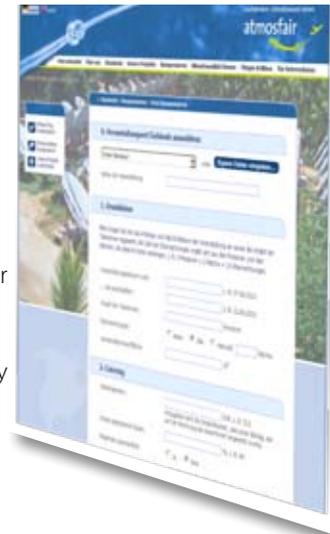
Annually, many thousands of events prove that Germany is one of the preferred sites for trade shows, conferences, and meetings. Only the USA hosts more. But the environmental burden of these events—due in particular to long travel—are forcing the hosts of these events, not least to preserve their good image, to study their event management sustainability concepts more closely. This can clearly be seen in public tenders for event management.

atmosfair designed an online CO<sub>2</sub> calculator that service providers (conference halls and hotels, etc.) can

use free of charge to calculate the data they need for these tenders.

The calculator also accounts for measures previously taken by service providers, for example:

- District heating, CHP, or solar/geothermal power
- Conversion to green electricity
- Percentage of regional, organic, and vegetarian catering
- Rainwater use and gray water recycling
- Quotas for public transportation, etc.
- Fuel-efficient company cars (hybrids, etc.)



### Example: CO<sub>2</sub> balance sheet for an international conference

Host:	IT sector company
Occasion:	Product presentation for international experts
Venue:	Messe Frankfurt
Number of participants:	300
Duration:	5 days
Overnight stays:	250 in 4 star hotel
Event area:	160 m <sup>2</sup>

### CO<sub>2</sub> calculations

#### Hotel

Overnight stays:	3.250 kg CO <sub>2</sub>
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#### Event venue

Electricity consumption (50% green electricity):	400 kg CO <sub>2</sub>
Air conditioning and heating:	200 kg CO <sub>2</sub>
Catering (organic, regional):	1.350 kg CO <sub>2</sub>
Impervious surfaces, process water and waste management:	70 kg CO <sub>2</sub>

#### Travel

By air:	19.000 kg CO <sub>2</sub>
By car:	1.200 kg CO <sub>2</sub>
By train or bus:	370 kg CO <sub>2</sub>
By taxi:	580 kg CO <sub>2</sub>
By public transportation:	90 kg CO <sub>2</sub>
Transportation Equipment:	180 kg CO <sub>2</sub>

Total emissions:	26.690 kg CO <sub>2</sub>
Emissionen per participant:	90 kg CO <sub>2</sub>

Together with atmosfair, event organizers can also conduct an energy audit to identify further cost-efficient measures to reduce greenhouse gases long term. In this area, we cooperate with the non-profit organization BAUM, among others.

## Proven methods

Previously, there was no carbon calculator for events that relied on well-known international standards for CO<sub>2</sub> emissions. atmosfair took on the challenge of adapting the many existing standards (including GRI, GHG Protocol, IPCC, WBCSD) and their various areas of application (energy, transportation, infrastructure) to the areas relevant for conferences and events and operationalized them to increase user-friendliness without compromising the solidity of the results.



Event calculator CO<sub>2</sub> report

## Partnerships with the tourism industry



MairDumont guidebook

### Cooperation with guidebook publishers

The MairDumont publishing group and the Michael Müller publishing company increased their commitment to climate protection in 2009 in cooperation with atmosfair. Environmental protection and climate-friendly travel are now highlighted in all MairDumont guidebooks including MARCO POLO, Dumont, Baedeker, and Stefan Loose Travel Handbooks. The books not only contain information on local environmental and climate protection, but also provide tips for travelers on green accommodations. The publishing group also informs its readers of the possibility of offset the emissions of their flights through atmosfair. The Michael Müller publishing house also mentions atmosfair in numerous publications, usually in the chapter on travel/flights.

### New atmosfair category: Travel climate-friendly

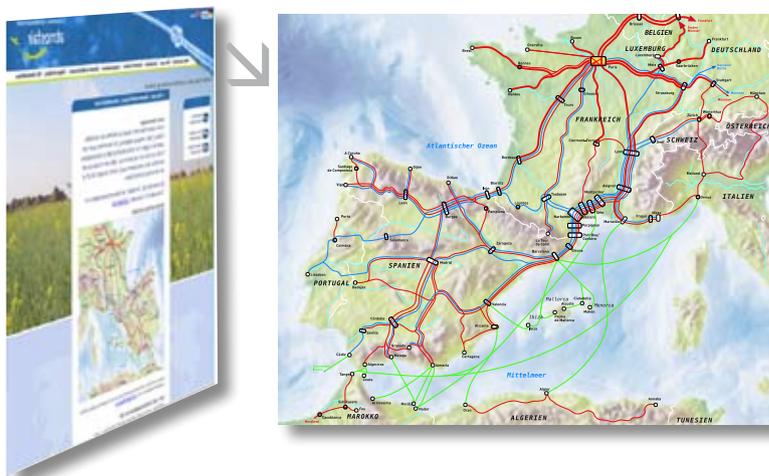
Under the main menu category "Travel climate-friendly" you'll find, among other information, tips on climate-friendly vacation planning and numerous links to travel packages and travel agencies that specialize in alternatives to air travel. This category was developed together with "Verträglich Reisen – the magazine for environmentally-friendly travel" and shows that vacation begins and ends at your doorstep. Each month, atmosfair also showcases travel packages for climate-friendly vacations by train, bus, or boat.

### Specialist tour operators on the rise

More and more tour operators are turning towards sustainable tourism—and offset unavoidable flights play a large role. Island Erlebnisreisen, for example includes an optional offset contribution in the price of a round-trip flight to Iceland.



Many tour operators make their own contribution to offset the greenhouse gas emissions of the travel packages they offer. The language study tour operator Lernen und Helfen automatically charges each client ten euros for atmosfair, the company then matches this sum with ten euros of their own. In this way, traveler and tour operator share the costs of partial offset of the flight's emissions. And some tour operators even pay the entire offset contribution for their clients' flights from their own pocket; for example the language study tour operator Experience! Sprachreisen does so for all flights to Malta.



New on the atmosfair website: Europe without airplanes, see <https://www.atmosfair.de/en/travel-climate-friendly/wasbedeutet/reiseplanung/>

What do cut flowers, laptops, peat, hot dogs, life, and driving a car all have in common? You can buy them as “climate neutral” products or you can make them “climate neutral.” The additional charge is low and all CO<sub>2</sub> emissions are offset, that’s how simple the world is. At least it’s easy to think so if you follow this issue on the news or read related advertisements. The consumer center Verbraucherzentrale Hessen determined in 2009 that the terms “climate neutral” and “carbon neutral” are confusing and sometimes even deceitful. (Press release: Produktinformation zwischen Wahrheit und Täuschung: wer sind die größten Grünfärber?—Product information between truth and trickery: Who are the leading greenwashers?).

atmosfair goes one step further and asks whether so-called product neutrality might not harm the climate more than it helps. Those selling the products regularly claim that greenhouse gas reductions during production have priority over offset and that only the remaining, unavoidable emissions are offset. But in practice, this is quickly revealed as mere lip service (see box).

CO<sub>2</sub> offset schemes thus quickly enter into competition with real solutions—already in existence—that make it possible to create truly climate-friendly products. For example electricity, now sold in Germany by certified green electricity providers. These providers invest their surplus charges in building new capacities (wind turbines, etc.) to meet consumers’ electricity demands. Only in this way does money for climate protection go towards indispensable technological innovation; only in this way will the costs of green technologies drop. If instead money goes towards offset projects in developing countries, greenhouse gas emissions are reduced, but there is no driving force for innovation. Studies have shown that this is not the path towards true climate protection. That’s why the EU has put restrictions on the purchase of CO<sub>2</sub> certificates from developing countries.

Do CO<sub>2</sub> neutral products make sense at all? That depends on the product! It’s worthwhile taking a closer look—atmosfair began a study on this question in 2009.

## Examples of questionable “climate-neutral” products

### climate-neutral electricity (offsetted)

- Products: Electricity in private households, for conferences, printed materials, server hosting or as a flat surcharge on the purchase of a laptop, accommodations, etc.
- Questionable: Old coal-fired power plants remain in operation, real climate solutions are blocked (I’m already buying “climate-neutral”).
- True climate solution: electricity from renewable energy sources

### Climate-neutral driving

- Climate-neutral products: Climate-neutral labels for a fixed amount of kilometers, fuel, leasing, etc.
- Questionable: Competes with true climate solutions; indirect incentive to continue driving (I’m already driving “climate-neutral”).
- True climate solution: Take the train, car pool, car share, drive slower, buy a smaller car. Incentives are weakened by offset.

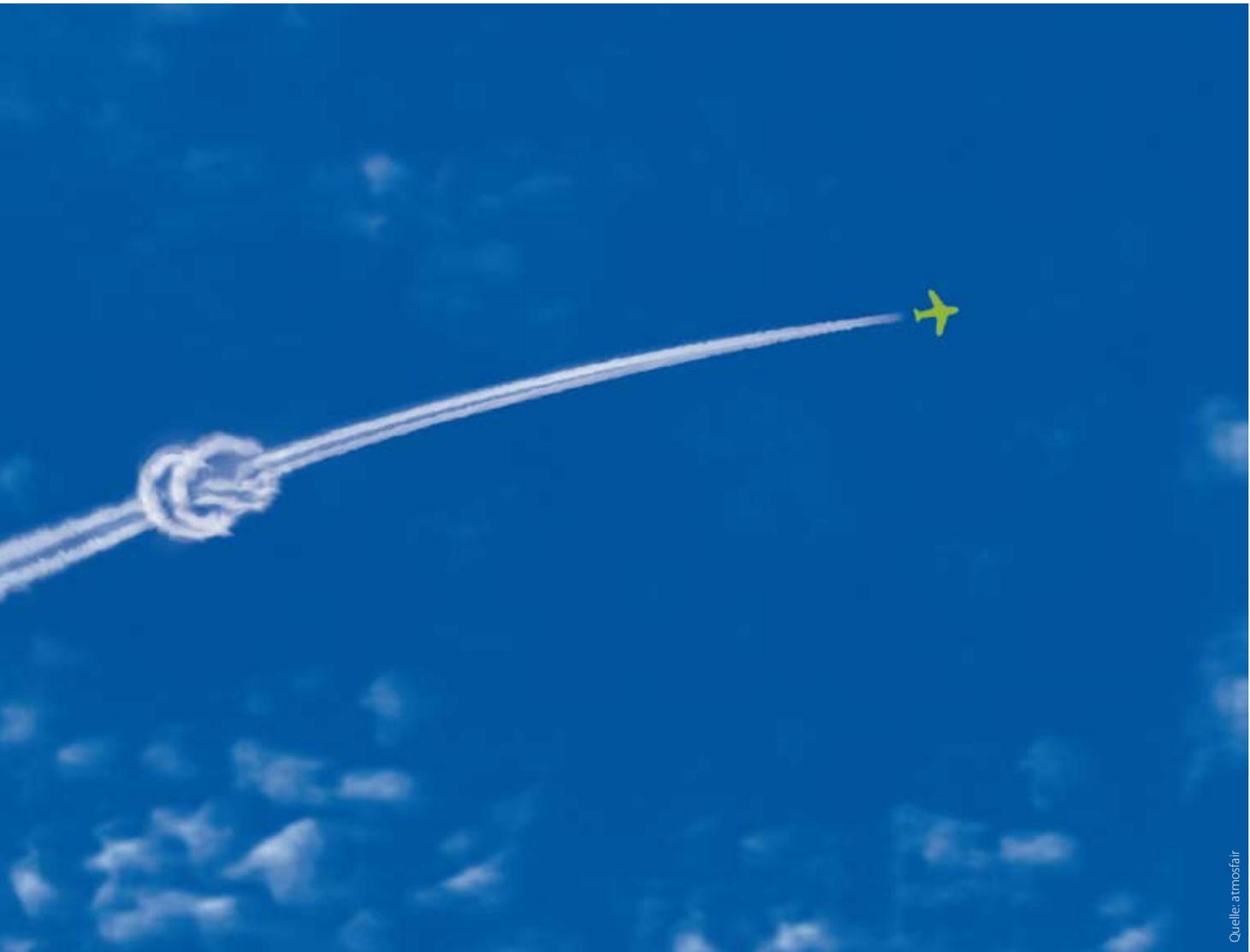
### Climate-neutral meat

- Climate-neutral products: meat in supermarkets, organic food stores, restaurants, etc.
- Questionable: To protect the climate, the global consumption of meat must be drastically reduced, there is no technical alternative. Offset only prolongs a dead-end situation.
- True climate solution: Eat less meat, eat meat from local farmers, dietary changes

### Counterexample: Long-distance flight with atmosfair

- True climate solution: fly slower, take a boat, car pool, book a fuel-efficient airplane, etc.: These options are usually not available. In reality, you can only abstain from flying. Whoever does not wish to do so, or cannot do so, can at least offset emissions with atmosfair and bridge the time gap until clean technologies are developed





In the year 2009, atmosfair continued its trend of growth. Donations increased to over 2.5 million euro. Moreover, atmosfair again received no public funding, so it remains completely independent financially as non profit limited liability company. The funds of the German Ministry for Environment (BMU) for the project in Burkina Faso (page 7), which is conducted in the framework of the International Climate Protection Initiative, are an exception.

Since 2007, the donations have been supplemented by revenues from the commercial operations. The profits from these activities support the non-profit activities of atmosfair. This has made it possible once more to keep the share of donations used to cover administrative costs to under ten percent. For every one hundred euros donated, 92 euros go directly to the operators and partners of the climate protection projects in the developing countries, and atmosfair spends only eight euro on its own personnel and other costs, such as IT, rent and credit card fees.

## Organization

The Stiftung Zukunftsfähigkeit (Foundation for Sustainability) remained the sole associate of atmosfair in 2009. The four-member atmosfair Advisory Board consisting of two representatives of the Federal Ministry for the Environment and two from environmental NGOs, approved the climate protection projects put under contract in 2009 and the new partners from the private and business travel sectors. The tax exemption for 2008 of the not-for-profit company and charity atmosfair gGmbH was certified by the tax authorities. At the beginning of 2010, the not-for-profit company duly issued the donation receipts for the climate protection contributions received in 2009.

## Financially independent

In 2009, atmosfair was run solely through offset fees and revenues from its commercial operations. The latter activity is permitted to a limited extent within a not-for-profit organization. No public funds were received during the year (exception: project in Burkina Faso, page 7), and atmosfair therefore remains financially independent. The Stiftung Zukunftsfähigkeit made no payments to atmosfair in 2008 nor, conversely, did atmosfair make any payment to the Stiftung Zukunftsfähigkeit, its sole associate.

## Revenues and expenditures

In the year 2009, clients paid a total of about 2.2 million euro offset fees to atmosfair. Among the expenditures, the largest item comprises the payments and reserves for the offset projects. These include costs for the setup and operation of projects, including the verification by TÜV and other UN-approved auditors, and the planning and supervision of projects abroad. In total, approximately 2.1 million euro were spent here. The funds were either transferred directly to the operators of the offset projects, or they were set aside in appropriate quantities as reserves for the payments of coming years agreed upon in the project contracts. There were also expenditures for the staff of atmosfair in Germany; these expenses came to approximately 200,000 euro for the year. Thus, a total of nearly 2.3 million was spent on climate projects in 2009.

In the year 2009, approximately 550,000 euro were spent directly on the offset projects. Because of the long term nature of the commitments involved, reserves of slightly more than 1.5 million euro were formed. These reserves will gradually be liquidated in the coming years, as payments from atmosfair to the climate protection projects become due in accordance with the contracts.

### Balance Sheet of atmosfair

31.12.2009			
Assets	€	Capital, Reserves and Liabilities	€
A. Non-current Assets	13.537,00	A. Equity Capital	3.916.717,65
I. Intangible Assets	3.584,00	I. Subscribed Capital	25.000,00
II. Tangible Assets	9.953,00	II. Reserves for purposes defined in articles of incorporation	3.891.717,65
		- Reserves for climate protection projects	3.320.317,65
		- Free Reserves	
		(also usable for climate protection projects)	571.400,00
B. Current Assets	4.058.120,36	B. Provisions for liabilities and charges	20.295,60
I. Receivables and other Assets	389.400,04	- tax accrual	16.141,66
- trade accounts receivables	130.072,13	- other accruals	4.153,94
- other Assets	259.327,91		
III. Checks, cash-in-hand, bank balances	3.668.720,32		
C. Deferred expenses and accrued income	300,00	C. Liabilities	134.944,11
		- trade accounts payable	2.014,36
		- liabilities to banks	1.372,29
		- Other liabilities	131.557,46
<b>Total</b>	<b>4.071.957,36</b>	<b>Total</b>	<b>4.071.957,36</b>

## Profit and loss statement of atmosfair gGmbH

	2009	2009	2008
	€	%	€
<b>Revenues</b>			
Offset fees for CO <sub>2</sub> -reduction projects	2.255.464	92,2	2.036.912
Funding of the German Ministry for the Environment: Planning and realization of biomass gasification in Burkina Faso	189.550	7,8	0
CO <sub>2</sub> -Reporting Software and consultancy, before tax*	147.808	6,0	56.159
Other revenues (interest etc.)	44.542	1,8	58.039
<b>Total</b>	<b>2.637.363</b>	<b>107,9</b>	<b>2.151.110</b>
<b>Expenditures</b>			
<b>a) Offset projects</b>			
- Payments (Construction and operation including assessment by TÜV etc.; project planning and support)	546.005	22,3	678.761
- Reserves for climate protection projects	1.517.355	62,1	1.197.280
- atmosfair's project planning and support in Germany	206.201	8,4	87.573
<b>Total</b>	<b>2.269.561</b>	<b>92,8</b>	<b>1.963.614</b>
<b>b) Staff</b>			
- Donator and partner support, public relation	189.380	7,7	58.382
<b>c) Other expenditures</b>			
- Administration (telecommunication, postal charges, office supplies, assurances, membership fees, exchange rate differences, depreciations)	47.735	2,0	20.319
- Office (rent etc.)	21.268	0,9	24.194
- Credit card fees, cash service, account fees	26.753	1,1	15.590
- IT (charges, maintenance, server rent)	19.379	0,8	50.511
- Tax accountancy Annual Report	2.075	0,1	2.000
- Printing costs for publications	38.215	1,6	10.342
- Business travels	8.345	0,3	4.669
- Advertisement (e.g. ads, posters, commercials, promotion teams)	0	0,0	0
- Sales taxes on commercial revenues	14.653	0,6	1.489
<b>Total</b>	<b>178.423</b>	<b>7,3</b>	<b>129.114</b>
<b>Total</b>	<b>2.637.363</b>	<b>107,9</b>	<b>2.151.110</b>
<b>Result after reserves for climate protection projects</b>	<b>0,00</b>		<b>0,00</b>

\* The revenues which are generated additionally to the donations completely cover all other expenditures listed as c) and a small part of staff costs listed as b).

At the end of 2008, atmosfair was committed to dispersing a total of about 8 million euro to project operators. These financial obligations exceed its reserves, which totaled to approximately 3.9 million euro as of the end of 2009. Consequently, it will be necessary to use donations from subsequent years to service the existing contracts. Besides reserves for the contractually committed funds, atmosfair also sets aside reserves for venture funding that can be used to get new projects started.

### Salaries

The second largest category of expenses, after the climate protection projects, was staff costs. atmosfair staff

are paid according to the public sector salary system of the German Länder (TVL).

The managing director is paid 90% of the salary level E13 (annual salary 2009: 48.000 euro), employees are paid 90% of the salary level E11 (31.000-43.000 euro/year).

The general administration costs (phone, postal charges, assurance and office supply) amount to just under 50,000 euros, 21,000 euros were paid for rent. Moreover, atmosfair incurs relatively high costs for credit card fees and payment services every year. These are necessary in order to process the online payments and deposit them in the atmosfair account. In 2009, about 27,000 euros were spent for this purpose.

### Cost reduction by own profits

In 2009, atmosfair received commercial revenues of about 148.000 euros, which were generated mainly by selling the CO<sub>2</sub> Reporting Software. These revenues from commercial activities, interest income and other revenues covered all other expenditures like rent, administration, IT etc. (see table page 28). Thus atmosfair's administrative costs could be kept on a low level and more money was transferred directly to the climate protection projects.

### Administrative costs 8% of donation revenue

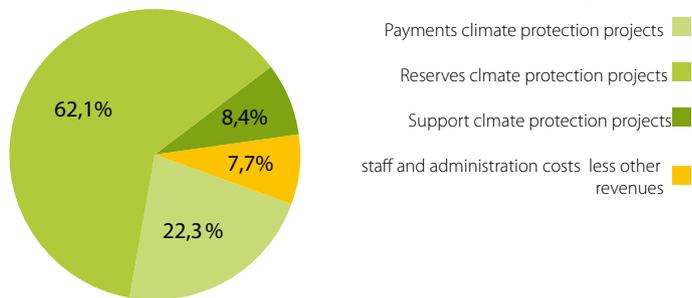
One of the atmosfair standards stipulates the efficient use of all donations and thus only a small part of the donations is used to cover administration costs. The costs referred to here are resources that are not invested directly in the climate protection projects abroad but are instead used by atmosfair itself. In the year 2009, a total of only eight percent of the donations were used for staff costs for the support of our donors and partners and for public relations.

The low costs were also made possible through the use of atmosfair's own software, with which most of the donated funds can be managed at almost no expense. In addition, atmosfair refrained from any and all forms of advertising in 2008, e.g. ads, posters, commercials or promotion teams. In other words, of every 100 euro donated, 92 euros go directly to the operators and partners of the climate protection projects in the developing countries, and atmosfair spends only eight euro on its own staff and other administrative costs.

### Achievement of objectives

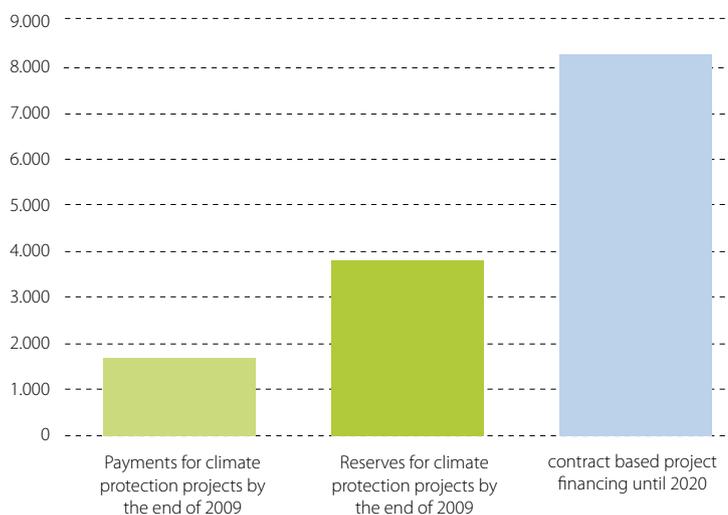
The climate protection projects underway so far should reduce CO<sub>2</sub> emissions by 760,000 tonnes by the year 2020, according to contracts. This covers the reduction commitments that have been made so far (see overview on page 17). Within the two-year period allowed between receipt of a donation and its allocation to a climate protection project, atmosfair has so far always offset more greenhouse gas emissions than was required by the donations.

### Expenditures of atmosfair gGmbH 2009



### Project finance, Date End 2009

in 1.000 €



### Statements reviewed and managing director granted approval

The managing director of the non-profit limited liability company (gGmbH) prepared the annual financial statement for December 31, 2009. The shareholders' meeting found the statement to be duly prepared and granted its formal approval to the managing director (June 5, 2009). There followed a resolution concerning the appropriation of the net income with the creation of reserves as indicated.

### Outlook

Following the successful year of 2009, atmosfair will continue to promote voluntary contributions to climate protection.

In consideration of the rapidly growing market for voluntary carbon offsets, atmosfair will maintain and develop its standards—not only concerning the choice of climate protection projects, calculation of emissions and allocation of resources, but also regarding new co-operations and business contacts.

# About us

## Patrons



**Prof. Dr. Klaus Töpfer**  
Former Executive Director of the United Nations Environment Program (UNEP).



**Prof. Dr. Mojib Latif**  
Leibniz-Institute for Marine Sciences, Universität Kiel.



**Prof. Dr. Hartmut Graßl**  
Former Director of the Max Planck Institute for Meteorology in Hamburg.

## Staff



**Dr. Dietrich Brockhagen**  
**Managing Director**  
former positions at the German Aerospace Center (DLR), the EU Commission and the German Federal Ministry for the Environment



**Katharina Behrendt**  
**Business Economist**  
Product Development & Key Accounts (Tourism)



**Robert Müller**  
**Biologist**  
CDM Projects



**Xaver Kitzinger**  
**Wirtschaftsgeograf**  
Betreuung von CDM-Projekten (PoA).



**Philipp Poll**  
**Biologist**  
Product Development & Key Accounts (Events)  
IT



**Florian Zerzawy**  
**Geographer**  
CDM Projects/Biomass



**Barbara Wagner**  
**Civil Engineer**  
CDM Projects (Hydropower) & Emissions Calculation



**Jörg Rüdiger**  
**Chemical Engineer**  
CDM Projects (Biomass)



**Maik Höhne**  
**Business Engineer**  
Emissions Calculation of Cruises and Air Travels, Reporting



**Alain Nana**  
**Engineer**  
Project Coordinator Burkina Faso



**Gregoire Sama**  
**Socioeconomist**  
Employee Burkina Faso

## Advisory Board for atmosfair Standards



**Nicole Wilke**  
Director of KI II 1 at the German Federal Ministry for the Environment, responsible for international cooperation, global conventions and global climate protection negotiations.



**Christoph Bals**  
Political Director of the Nord-Süd organization Germanwatch, a critical-minded observer of German environmental policy for over 15 years.



**Franzjosef Schafhausen**  
Director of KI I 6 National Climate protection at the German Ministry for the Environment, responsible for the German climate protection program and international climate protection projects.



**Klaus Milke**  
Chief Executive Officer of Stiftung Zukunftsfähigkeit and of Germanwatch, brings business experience and contacts to climate protection.

## Test winner in comparative studies



## We fly atmosfair (selection)



## Travel industry partners



## Climate protection project partners

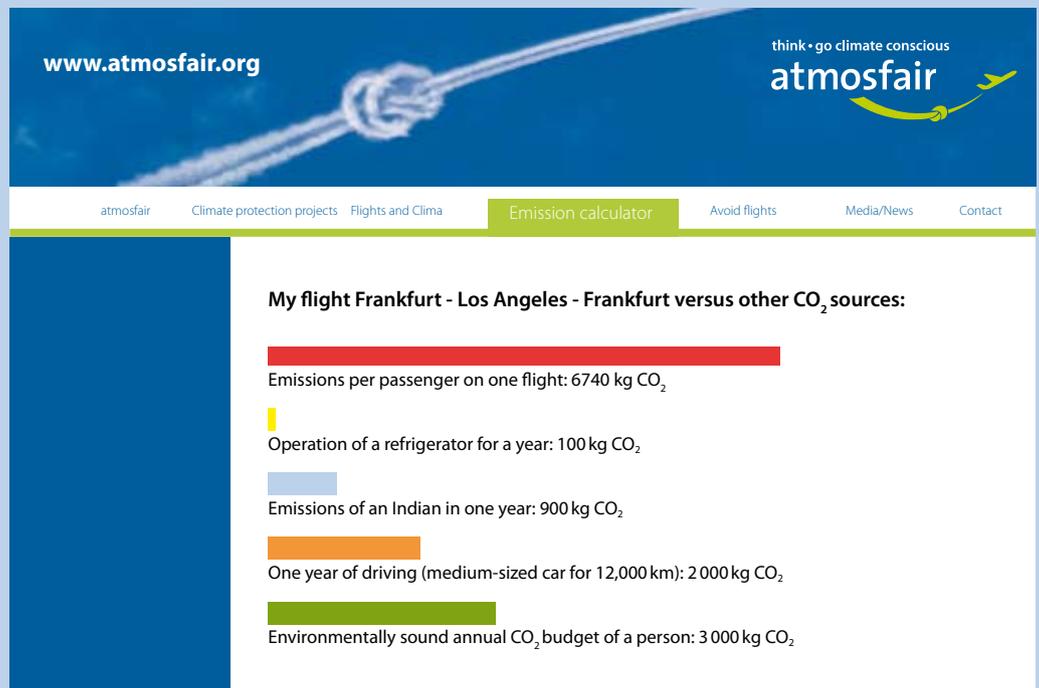


## If I fly - I fly atmosfair

atmosfair is a non-profit organization that works for climate protection in air travel. On our web site or at a cooperating tour operator, customers can calculate the greenhouse gases generated by their flight and pay a corresponding climate fee.

Revenues are used by atmosfair to finance CO<sub>2</sub> off-setting projects that recompensate the amount of greenhouse gas emissions that a flight created. Payments can be made online through a money invoice or with a credit card, or through cooperating tour operators and travel agencies. You will receive a personalized certificate stating your contribution.

[www.atmosfair.org](http://www.atmosfair.org)



## atmosfair patrons



*Klaus Töpfer*



*Prof. Dr. Mojib Latif*



*Prof. Dr. Hartmut Graßl*