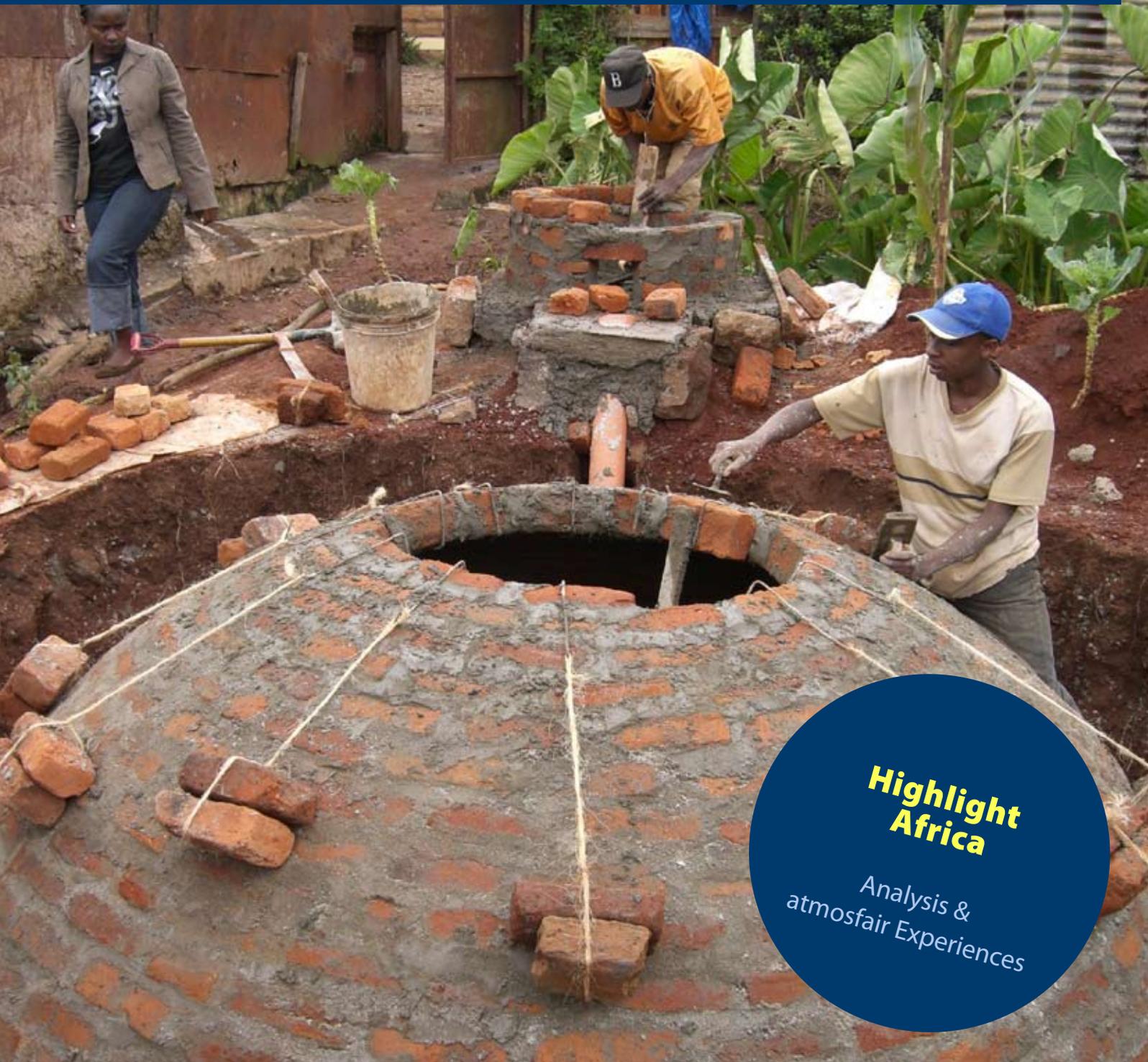


think • go climate conscious

# atmosfair



## Annual Report 2010



**Highlight  
Africa**

Analysis &  
atmosfair Experiences

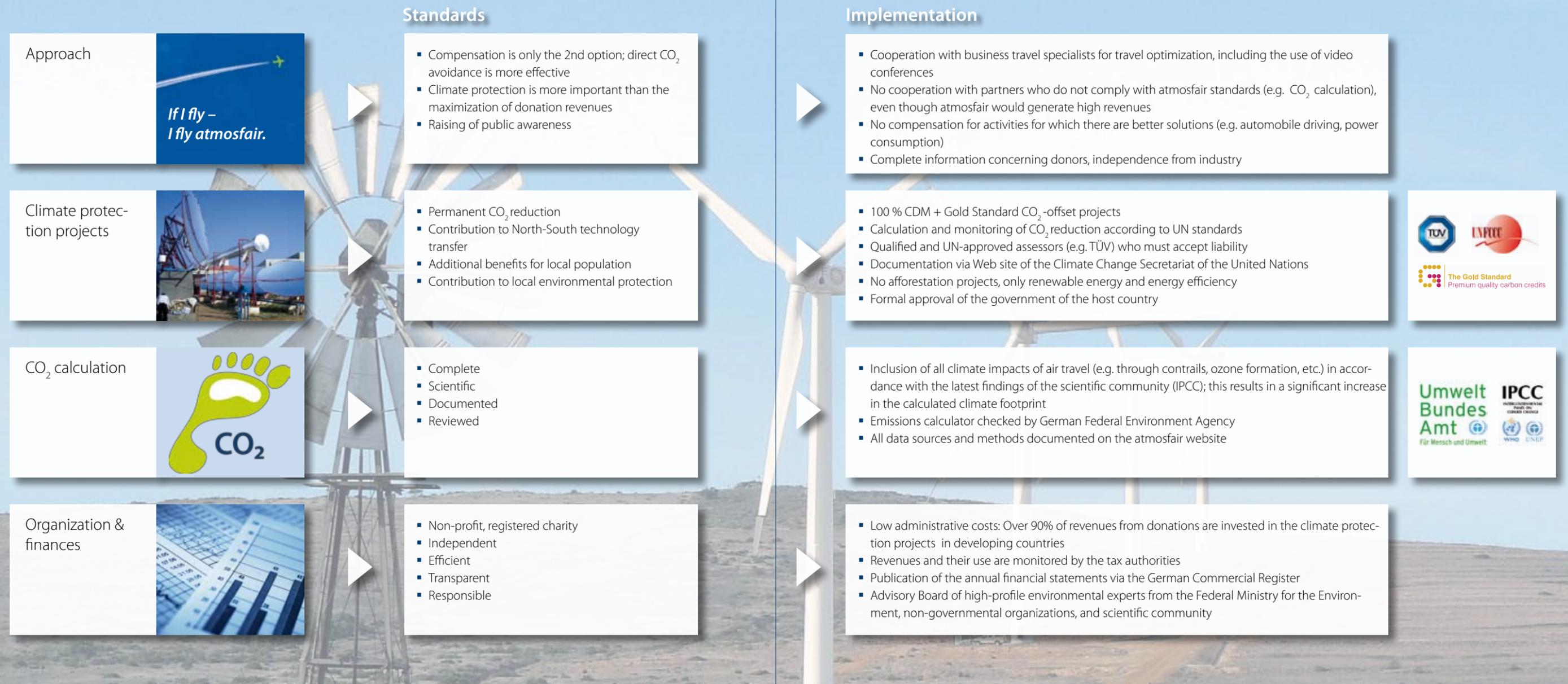
# Standards

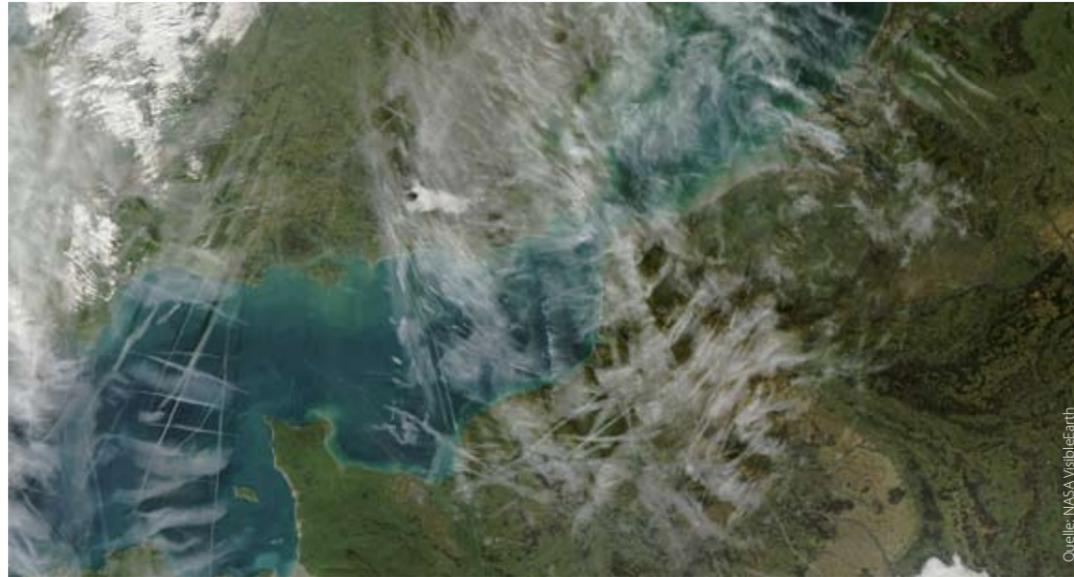
atmosfair was created in 2004 in a research project of the Federal Ministry for the Environment. In the framework of this project, principled standards were developed for voluntary CO<sub>2</sub> compensation.



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





Condensation trail above France

Quelle: NASA VisibleEarth

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Dear readers,

The two-degree target cannot be achieved. The admission that all international climate negotiations up to now have failed is as simple as that, despite the optimism that had surrounded the Cancun conference in December 2010. As the Potsdam Institute for Climate Impact Research has pointed out, anyone who cares to add up the national carbon emission reductions pledged at the close of the Cancun summit will, at the most, arrive at a figure of 14% less CO2 in 2020 as compared to 1990. To achieve the two-degree target, this figure needs to be doubled.

2010 was atmosfair's most successful year since its founding: for the first time ever, proceeds topped the 3 million euro mark, giving atmosfair the means to support new CO2 reduction projects such as a wind farm in Nicaragua and the introduction of efficient wood-fuelled stoves in Rwanda. Underlining the success of these stoves, the UN climate secretariat awarded a prize to a similar project in Nigeria. The project was praised for its tremendous benefit, not only to the climate, but also to the population, by reducing the incidence of respiratory diseases and lowering the overall cost of living.

Around one million households in Nigeria would have to be equipped with such stoves in order to curb deforestation to any noticeable extent. Although atmosfair has been following UN documentation and is supporting the respective method, funding remains inadequate, and more than 100 million euros are still needed. Too much to expect of current atmosfair donors, but a humble amount compared with the money spent on flights to and from Germany.

The people of Lesotho are now able to benefit from this promising concept, too: together with Deutsche Post DHL, atmosfair started an efficient-stove project there in 2010. This is wholly financed by our partner's "GOGREEN" climate protection program in which customers can choose GOGREEN products to offset emissions created by the shipment of parcels and letters.

At a meeting held only a few days before the Cancun conference, the International Civil Aviation Organization (ICAO) came to similarly sobering conclusions: although 181 of its member states agreed that an annual efficiency increase of 2% less CO2 emissions

per passenger kilometre would not be enough to reach the target of a 2-degree limit to global warming, this was precisely the milestone they set as efficiency goal for 2050.

In order to throw more light on the CO2 efficiency of air traffic, atmosfair has created an Airline Index. This provides a transparent comparison of the CO2 efficiency of various airlines and enables customers, especially companies, but also private travellers, to choose airlines with the lowest emissions. The success of this idea has proved atmosfair right; both the European and the international media showed a keen interest in the Airline Index, and atmosfair was inundated by enquiries.

In 2010, atmosfair broke new ground with its plans for CO2 reduction advertisements at Hamburg Airport. This cooperation between the airport, the city of Hamburg, atmosfair and prominent figures such as film director Sönke Wortmann shows that CO2 reduction awareness is reaching more and more sections of society. atmosfair would like to say "thank you" to all its partners for their cooperation and commitment.

And last but not least: 2010 also saw the publication of a new study comparing carbon offset providers. This study was commissioned by the Federation of German Consumer Organizations and carried out by the University of Applied Sciences in Eberswalde. atmosfair was the only organization to be rated as "very good".

Our sincere thanks to all donors and partners,

Dr. Dietrich Brockhagen  
 atmosfair CEO



Dr. Dietrich Brockhagen, CEO

Lesotho: During the test cooking a woman tests the quality of the atmosfair cook stove



In 2010, atmosfair continued its support for CO2 reduction projects with the aim of not only avoiding CO2 emissions but of also obtaining the greatest possible benefit for the population of target countries - primarily by supporting innovative projects at household level.

atmosfair is gradually implementing more of such projects in direct cooperation with partners in the target countries. The main focus is on Africa, where at the moment only 2% of all CDM projects registered worldwide are based. In this context, atmosfair has not only managed to improve technical competence, for example in introducing wood-fuelled stoves and mini biogas plants, but has also become an important player in the development aid sector.

Good reason to expound the concepts of our project work – especially in view of the fact that development aid is being scrutinized more critically of late. Especially in Africa, a large amount of attention has been drawn to aid projects which have failed to materialize, for example the hospital in Malawi which was to be constructed at a cost of 3,8 million euros with singer Madonna’s support and which was never built. Kenyan economist James Shikwati even regards development aid as the cause of a lot of Africa’s problems, since it encourages dependence and helps keep corrupt regimes in power.

**The following principles define the project work of atmosfair:**

**Direct partnership-based cooperation**

with local project partners, side-stepping middlemen, international institutions and local authorities. This makes it possible to support especially small projects, while ensuring that the support is wanted and conforms to local needs.

**Suitable, diligently tested technologies**

In relation to their investment costs, the technologies employed must prevent a large amount of CO2 emissions. atmosfair’s contribution can make a vital-difference in this kind of project (in projects where investment costs are high anyway, the same contribution would not be so critical).

**What are the right atmosfair technologies for Africa?**

To be of use for atmosfair projects, technologies must not only meet the needs of the local inhabitants but also save a lot of greenhouse emissions at a low price. This is the reason why atmosfair boosts efficient wood cook stoves and biogas plants. Power generation from solar cells is much more expensive in this regard: One 100W-plant costs approx. 400 euros and saves only approx. 1.5 tons of CO2 in ten years, if Diesel electricity is replaced. The atmosfair solar lamp project (d.light) is different: Kerosine powered lamps are replaced by efficient LED lamps; the CO2 reduction can be calculated from the comparison of the light intensity. A solar lamp worth appr. 20 euros can save at least one ton of CO2 in ten years.

Project type	Price per item	Saved emissions (in 10 years time)
 Efficient wood cook stoves	120 €	20-50 t CO <sub>2</sub>
 Biogas plant	240 €	20-50 t CO <sub>2</sub>
 Solar lamps	20 €	1 t CO <sub>2</sub>
 100W-Solarpanel	400 €	1.5 t CO <sub>2</sub>

**Demand-driven**

Whether we are talking about efficient wood-fuelled stoves or mini biogas plants: atmosfair does not simply give these technologies away as a gift, but subsidizes them to the point where they are affordable and economical for the local population. In this way we can guarantee that donations are not invested in projects which do not address the needs of the local people – and apart from this, the return flow of income from local sales helps our project partners to set up sustainable structures. In order to be able to learn what the exact needs and wishes of the population are and to integrate locals into our CO2 reduction projects, so-called “stakeholder consultations” are held during the planning phase, in keeping with Gold Standard regulations. These are meetings in which all stakeholders – local politicians and authorities, religious and traditional leaders with authority in the community, local NGOs and, of course, the actual people who will be benefiting from the project – are invited to discuss the plans in detail.

**Success monitoring:**

No matter how carefully the project is planned, success cannot be guaranteed. In projects conforming to the CDM Gold Standard, an auditor who has full accountability annually checks the actual CO2 reductions achieved in the previous year. Since the measured CO2 reductions can only be achieved if the promoted technologies are actually put to use, monitoring the effect on the climate also means monitoring implementation of the entire project. The project no longer receives support if its success cannot be confirmed.

In relation to its size, atmosfair now has the largest percentage of African CDM projects of all carbon-offset organizations. It is a welcome guest at events concerning climate protection and is regularly asked to act as advisor to organizations such the German Society for International Cooperation - GIZ.

atmosfair intends to continue increasing its share of proprietary projects, which means that local partners will become even more important for its project work.

**Focus: how an atmosfair CO2 reduction project comes into being - from problem to concept ...**

**1. The problem**

Nigeria. Nowhere else in the world is the relationship between the use of wood fuel and environmental damage more obvious. The country is rich in oil, but wood is still the main source of fuel for the local population. As in many other African countries, this valuable raw material is burnt wastefully in open fires. These consume a lot of wood and the smoke produced constitutes an additional health hazard. The outcome is that the countryside is becoming increasingly deforested, making the land barren and depleting the soil. The people of Nigeria are aware of this, but where else should they find the wood needed to cook the food which keeps them alive?



turned out to be the best solution in terms of quality and efficiency. It saves as much as 80 percent in wood fuel!

*But this is just another imported product from an industrial country as it is produced in Germany.*

**Ahmed:** That's true. But it is the result of many years of research and development on what can help the people most. The manufacturer came to Africa on many prolonged visits. The individual parts are produced in Germany, but the stoves are assembled locally. This also creates a lot of jobs.

*What brought you on to atmosfair?*

**Ahmed:** The wood-fuelled stoves are expensive and people in Nigeria would not be able to afford them if they weren't subsidized. I knew that the families were reducing greenhouse gases using the new stoves, making this eligible as a CO2 reduction project. With the assistance of atmosfair, the sales price can be kept down to a level which is acceptable for locals. That is why we approached atmosfair.

The local population should not be bullied into taking part in CO2 reduction projects, so it is important to find out locally how existing efforts can be stepped up. Numerous discussions have to be held: with politicians, with religious leaders, with members of the community that traditionally have authority, with NGOs and with users of the inefficient cooking stoves in order to find the best solutions. Numerous stakeholder discussions are necessary, but it is worth the effort involved: The atmosfair stoves are one of the top ten CDM projects seeking to promote sustainable development to a significant extent worldwide. In 2010, the UN confirmed this. This degree of success can only be achieved by cooperating with the local population.

**3. Stakeholder discussions**



**2. The Concept**



**Yahaya Ahmed, 52, civil engineer and visionary, atmosfair's project partner in Nigeria:** Families in our country spend one-third of their income on wood for fuel. I wanted to give them a means of cooking that is cheaper, doesn't smell as much and doesn't make them ill – and which also helps to protect the global climate.

*atmosfair: The problem is quite obvious, but a lot of organizations have tried similar technologies and have failed. Why don't you introduce solar-powered cookers?*

**Ahmed:** We have tried a lot of things. But what is the use of a solar cooker which is eventually slung into a corner because people want to be able to cook in the evenings when the sun is no longer shining?

*So what was your solution?*

**Ahmed:** We started to look for efficient stoves which use wood for fuel. That is, a technology which is in keeping with the local culture and does not require people to change their habits. In the end, the Save80 stove

**...from funding to the first consignment...**

**4.**

**Funding**



Project partners, requirements, technology and infrastructure: all agreed upon and in place. The only thing missing now is money! Without additional funds, the product is too expensive. A lot of people live below the poverty line and cannot afford a new stove. What a stroke of luck that atmosfair was awarding a prize for innovative CO2 reduction projects in 2008. Ahmed and DARE, his organization, apply – and actually win!

**5.**

**The first consignment**



First of all a long series of discussions and negotiations. Then plans and preparations. Finally the time has come: the first container with stoves from Germany arrives in Nigeria. The whole process has taken more than a year. In the container – parts for around 1,500 fuel-efficient stoves.



**6.**

**Assembly**

These individual parts have to be bent, folded, screwed together and numbered. The people who are to supervise this work are trained locally, creating much-needed jobs. A short time later DARE reports: sold out!

... from validation to sale ....

80% less wood fuel? Sounds good. But are the figures quoted by atmosfair correct? The "TÜV Nord" technical services company is commissioned to audit them. The project cannot be registered at the UN or officially recognized as a Gold Standard CO2 reduction project until the OK has been given.

Experts from TÜV Nord inspect the project on-site in Nigeria. Has the database been designed to provide full proof of the number of stoves in operation? How much wood fuel do the households consume? Has enough consideration been given to the needs of the population? Do people cook

7.

Validation

more now that consumption is so low? The auditors listen carefully, ask questions, go into minute detail. In this way, they identify weaknesses that atmosfair and its partners had not thought about. Some families use metal stoves. The Save80 stove may be more efficient, but is not that much better than the three-stone stove. CO2 reduction is less than expected. However, around one year after validation started, the results are published:



the project is registered with UNFCCC.



8. Sales

Now it comes to the acid test: Is the project going to pay off? Will local people buy the stoves? The Save80 stoves are largely subsidized, but after all they are not being given away free to the users. The matching pots and pans and an insulated box are being offered as well. In this way, for instance, rice can continue to cook while the sauce is being prepared on the stove. This is practical, modern and manages to convince the locals. Multiplicators such as imams, priests and representatives of the emir ensure that a lot of people attend the open-air sales events. A lot of people are sceptical: Is it really possible to cook with so little wood? Will the food taste as good as it always has? And for this reason, cooking demonstrations are part of the roadshow. A tasty meal is more convincing than a thousand words!

... from verification to new projects ...

The stoves have been sold. But who knows whether they will ever be used? That the buyers won't simply sell them as scrap metal and return to their old habits and traditions? To ensure that the efficiency potential is actually implemented and that CO2 reductions will be as great as planned, TÜV Nord is asked to carry out a follow-up audit around one year later. The experts go from house to house, checking on the stoves. This is tedious and costs money. But it is the only way of guaranteeing that the donors' contributions are actually being used to reduce greenhouse gas emissions.

9.

Verification



10.

Repealing emission rights

Every stove avoids around two tons of CO2 emissions every year. In comparison: the average German creates five times this amount. The UN has already confirmed the first tranche of CO2 reduction for Nigeria. atmosfair then removes the certificates in the central register of the German Emissions Trading Authority (DEHSt), thereby confirming that the greenhouse gases are being sustainably avoided.



1.

New projects will follow

Thousands of tons of avoided CO2 will follow. In the meantime around 5,000 atmosfair stoves are in use in Nigeria alone. This successful concept is now being extended to other countries: to Rwanda and also to Lesotho, where the international logistics company DHL is financing the project.

At a glance ... Efficient wood-fuelled stoves in Africa		
<b>Local environment:</b>	Less smoke, less deforestation	
<b>Additional benefits:</b>	Low-cost energy for private households	
<b>In Nigeria:</b>	<b>In Rwanda:</b>	<b>In Lesotho:</b>
<b>Total reduction:</b> approx. 30,000 tons of CO2/annum, averaged over 10 years	<b>Total reduction:</b> approx. 40,000 tons of CO2/annum, averaged over 10 years	<b>Total reduction:</b> approx. 20,000 tons of CO2/annum, averaged over 10 years
<b>Project partners:</b> DARE, LHL	<b>Project partners:</b> ENEDOM	<b>Project partners:</b> Solar Lights
<b>... and in detail:</b> <a href="https://www.atmosfair.de/en/our-projects/projekte00/nigeria-efficient-fuel-wood-stoves/">https://www.atmosfair.de/en/our-projects/projekte00/nigeria-efficient-fuel-wood-stoves/</a>	<b>... and in detail:</b> <a href="https://www.atmosfair.de/en/our-projects/projekte00/rwanda-efficient-cook-stove-project/">https://www.atmosfair.de/en/our-projects/projekte00/rwanda-efficient-cook-stove-project/</a>	<b>... and in detail:</b> <a href="https://www.atmosfair.de/en/our-projects/projekte00/lesotho-efficient-fuel-wood-stoves/">https://www.atmosfair.de/en/our-projects/projekte00/lesotho-efficient-fuel-wood-stoves/</a>
		<b>Financed by:</b> Deutsche Post DHL

## Other projects in Africa



Burkina Faso: Test of pilot plant

**Burkina Faso: Green power from crop residues**  
atmosfair has had very mixed experiences with its project in the West African state of Burkina Faso. In the border town of Pô, a pilot plant generating electricity from crop residues has been in operation since 2008. Its output of 22kW is used to supply power to a hospital. In an area where surgical interventions used to involve a high risk due to the unreliable electricity supply, ten lives have already been saved thanks to this installation.

The Burkina Faso installation is unique: it is the first time that crop residues collected in the surrounding areas have been used in a power plant of its kind. There is only a handful of comparable plants actually in operation in the whole of Africa. The technology was developed in India, but has been mainly tried and tested for industrial heat generation up to now and so there is little experience with power generation. At the outset, it was not clear whether it would be possible to set up a biomass supply chain at all. atmosfair has mastered both problems admirably.

Farmers and cooperatives showed a distinct interest in extending the project by a further 2 MW plant. This would have given them important additional income. Above all, electricity could have been produced far more cheaply than in Burkina Faso's conventional power plants, which run on expensive diesel fuel imported from Saudi Arabia.

### No powerful partners available locally

One fact has become clear from our involvement in Pô: small and medium-sized wood-gasification plants for local power grids, particularly for light industries which also require process heat, are commercially feasible. However, state subsidies for diesel-powered electricity generation in Burkina Faso are high, thus concealing the price advantage of green power. As a result, the national power utility company, Sonabel, dismissed the pilot project as being economically unsound and, in order to uphold existing production processes, refused to allow the feed of energy produced in this way into the national grid.

What we were lacking here was a powerful local partner. Although two local utility companies had been specially founded, the power plant was not their core business. So in the end, lack of local interest and willingness to take risks prevented the project from asserting itself against Sonabel.

### Lessons learnt

atmosfair failed to achieve its goal of installing a 2 MW plant. Nevertheless, the pilot project has not been in vain. It has produced a set of planning tools, business plans and experience, providing a concept that can be put to good use by new potential stakeholders. These might be found in Burkina Faso itself or in Bolivia, where atmosfair has succeeded in introducing this technology.

atmosfair has not spent any donated funds on the project. The pilot plant was supported by the international climate protection initiative (IKI) of the German Federal Ministry for the Environment.

#### At a glance ...

Technology:	gasification (pyrolysis) of woody crop residues
Local environment:	substitution of fossil fuels, additional fertilizer
Added advantages:	supplementary earnings in rural districts, additional jobs in agriculture, transportation and technical operation and maintenance of the plant
Project partners:	the communities of Pô and Garango (Burkina Faso), German Federal Ministry for the Environment

#### ... and in detail:

<https://www.atmosfair.de/index.php?id=408&L=3>

### South Africa wind farm

Thanks to persistently strong winds, this country - extending south as far as the Cape of Good Hope - provides excellent conditions for the use of wind power. In cooperation with the South African Oelsner Group, atmosfair is planning construction of the Kerrifontein wind farm project, which will involve setting up 16 wind turbines of 1.3-1.5 MW each. This area is currently used for extensive agriculture such as grazing and stock farming, which is ideal for integrating installations of this kind.

atmosfair is supporting the project by financing its environmental impact assessment and developing it as a CDM Gold Standard project. Construction of the wind farm is planned to start in mid-2012.



South Africa: scheduled wind park „Kerrifontein“

### Kenya: Biogas project for peasant farmers

In Kenya, as in many other African countries, biomass is the local population's main source of energy. The forests are overexploited and biodiversity is suffering as a result.

The aim of constructing small biogas generators made of local materials is to enable farmers who own two or three cows to produce enough energy to meet their own cooking needs. Cow manure and agricultural waste are fermented in these installations, which each have a volume of 2-3 m<sup>3</sup>. Liquid slurry that can be used as fertilizer is produced as a by-product.

20 installations have been built during the pilot phase (which was supported by the German Federal Ministry for the Environment). The Gold Standard audits went successfully. Local farmers, NGOs and local authority representatives all welcome this project. After registering it as a UN CO<sub>2</sub> reduction project, atmosfair and its partner SES intend to construct several thousand installations of this kind.



atmosfair is active in six African countries and supports four different technologies.

Kenya: Construction of a biogas plant



## Other ongoing projects



India: Transport of crop residues

### Nicaragua: first wind farm completed

In Nicaragua, the road to a green power mix is long. Nevertheless, the first step has been taken: The first wind farm in this Central American country has been built as part of the CDM "Amayo Wind Power Project". The CDM and Gold Standard audit procedure has been concluded. The local organization "Consortio Eólico Amayo S.A." is responsible for managing the installations.

The wind farm is located in Rivas, a region in the far south-west of the country, on the shores of Lago Nicaragua. 19 wind turbine generators with a capacity of 2.1 MW each have been installed. The electricity will be fed directly into the national grid and will contribute towards making power supply more reliable and affordable.

The outlook is promising: the installation is expected to generate just under 200 GWh on an annual average. This also means that less oil will have to be imported, thus boosting sustainable development in Nicaragua. However, in 2009/2010 the yield failed to meet expectations as "La Niña" thwarted planners' efforts. This means that the funds provided by atmosfair are all the more needed in order to repay loans. This rare natural phenomenon will not affect the overall outlook, however. Plans are already in place to set up additional wind farms at the same location.

### India: Electricity from mustard crop residues

The 8 MW biomass power plant supported by atmosfair has been in operation since 2007. In 2010 it avoided around 30,000 tons of CO<sub>2</sub>. These reduction figures are currently being checked by the German technical service company "TÜV".

2010 was an unsettled year in which the plant was idle for almost four months. Due to persistent drought, cooling water could not be obtained from the nearby reservoir. However, since it was restarted, the plant has managed to achieve full capacity again.

At present, the plant's operator, KPTL, is working on the production of bio-fertilizers from the ash and bricks from the fly-ash. The objective is to utilize all waste products from the plant to achieve further CO<sub>2</sub> reduction, since conventional fertilizer production and brick-making processes also emit large amounts of greenhouse gases.



Nicaragua: Amayo Wind Power Project

## Projects in Germany



The energy masters of Berlin-Neukölln

atmosfair does not claim for the CO<sub>2</sub> reductions it achieves from projects within Germany since these are already registered in the Kyoto system and are accounted for in Germany's CO<sub>2</sub> inventory.

### Schools protect the climate: atmosfair is sponsoring schools

In 2010, as in previous years, atmosfair again acted as sponsor for schools committed to CO<sub>2</sub> reduction. The "Surheider Grund- und Förderschule", a primary school in Bremerhaven, outstripped 200 other schools to win the "champion energy saver" competition. atmosfair assisted pupils in setting up a small wind turbine "Whisper 100" on the school roof, an important symbol for the change in energy policies and making children aware of renewable energy sources at an early age. atmosfair has also sponsored another school, this time in the Berlin borough of Neukölln, which is participating in the co2online competition, attracting entries from 10,000 pupils all over Germany. The youngsters at the "Heinrich-Mann-Schule" showed tremendous creativity. They not only held a photo competition, but also produced a very special musical composition - a climate rap. The "do you see the light?" performance (Geht dir ein Licht auf?) was also shown on German television in the ZDF program "Logo". (<http://www tivi.de/tiviVideos/beitrag/Logo%21/886354/1285216>)

For more information, visit [www.energiesparmeister.de](http://www.energiesparmeister.de).



Berlin: „Did you get it?“- Climate-rap

### Climate education: the Fifty-Fifty project

"Starting early" is the motto of the Fifty-Fifty initiative introducing climate education in schools. In project days, workshops and work groups, pupils investigate possible ways of saving energy. What is so special about this concept is that half the money that is saved is placed at the school's disposal, while the other half goes to the school authorities or operator.

This arrangement certainly promotes inventiveness! For example, the primary school children from Kalbe reached for paper, scissors and glue and in no time at all had produced lots of signs reminding everyone to turn off unnecessary lights and turn down the heating. The messages were in the form of rhymes, making them easier to remember. It really is so easy sometimes, and so very energy-efficient! Each school reduces its CO<sub>2</sub> emissions by 10 to 50 tons annually by observing these messages. atmosfair helped to finance the Fifty-Fifty initiative once more in 2010, and in the meantime as many as 15 schools are enjoying atmosfair's support.



50/50 supports pupils in saving energy

# Overview of current atmosfair-climate protection projects

Nicaragua: Wind power



**Operation**

- In operation
- CDM Gold Standard registration is completed
- First periodic CDM Gold Standard verification completed

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

Lesotho: Fuel-efficient wood cook stoves



**Validation**

- Stoves sales and use ongoing
- Project financed by the GOGREEN program of Deutsche Post DHL
- Project plan at validation

Honduras: Small hydroelectric plant



**Operation**

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

Ruanda: Fuel-efficient wood cook stoves



**Validation**

- Contractual agreement with local partners completed
- Local Stakeholder Consultation took place
- Project plan at validation

India: Electricity from crop residues



**Operation**

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

Kenia: Biogas plants



**Validation**

- Contractual agreement with local partners completed
- Construction and use of 20 pilote plants completed, extension ongoing
- Project plan at validation

India: Biogas digesters



**Operation**

- 5,500 digesters in operation
- CDM Gold Standard registration 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

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

India: Fuel-efficient irrigation pumps



**Planning**

- Contract with PRACTICA signed
- Implementation strategy in development.

Date: May 2011

# Planning Portfolio

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

	2006	2007	2008	2009	2010	2011	2012	2013-2020	Gesamt bis 2020
<b>Thailand: Biogas from wastewater</b>				2,0	5,5	5,5	5,5	33,5	<b>52</b>
<b>Honduras: Small hydropower plant</b>	15,0	13,0	20,0	9,0	26,0	33,0	26,0	0	<b>142</b>
<b>India: Electricity from crop residues</b>			11,0	43,0	28,0	36,0	35,0	0	<b>153</b>
<b>China: Hydraulic rams</b>					(0,5)	(0,6)	(0,6)	(4,0)	<b>0</b>
<b>Nigeria: Fuel-efficient wood stoves</b>				0,5	4,0	9,0	23,0	285,0	<b>322</b>
<b>India: Solar lamps</b>						1,0	2,0	27,0	<b>30</b>
<b>India: Biogas digesters for households</b>			14,0	11,0					<b>25</b>
<b>South Africa: Wind Power</b>								96,0	<b>96</b>
<b>Lesotho: Fuel-efficient wood stoves</b>							3,5	67,0	<b>71</b>
<b>Nicaragua: Wind Power</b>				63,0	57,0				<b>120</b>
<b>Ruanda: Fuel-efficient wood stoves</b>							6,0	160,0	<b>166</b>
<b>Total</b>	<b>15,0</b>	<b>13,0</b>	<b>45,0</b>	<b>128,5</b>	<b>120,5</b>	<b>84,5</b>	<b>101,0</b>	<b>668,5</b>	<b>1.176</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>93,6</b>		
<b>Obligation for CO<sub>2</sub> reduction from offset revenues<sup>2</sup> customer ordered</b>				<b>3,5</b>	<b>15,0</b>	<b>63,8</b>			
<b>Accumulated obligation for CO<sub>2</sub> reduction<sup>2</sup></b>	<b>0,0</b>	<b>9,5</b>	<b>19,0</b>	<b>86,0</b>	<b>189,6</b>	<b>345,6</b>	<b>439,2</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>201,5</b>	<b>322,0</b>	<b>406,5</b>	<b>507,5</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.

## Project audits – a problem: Kyoto reloaded

How can CO2 reductions be confirmed and certified beyond reasonable doubt? This was one of the core issues at the Kyoto climate conference in 1997, more than 14 years ago, the reason being that a number of stakeholders have a vested interest in officially documenting as large a reduction as possible: investors who obtain equivalent CO2 certificates, project operators who can demand more financial support, and host countries which can boast of their successful CO2 reduction measures. The only potential loser is the global climate, since compensation is only effective if projects really do reduce CO2 emissions to the claimed extent.

However, the CDM was originally and mainly intended as a mechanism for large-scale industrial projects. The audit costs are high and have practically no relation to the size of the project. This means that the financial effort involved can be disproportionately high for small projects.

In the case of atmosfair, this situation creates a conflict of interests: on the one hand, projects are to be audited in accordance with the strict CDM regulations, but on the other hand, it is difficult to justify the cost of employing an auditor, which consumes a considerable part of the project funding. How can this conflict be resolved?

### Bolivia: Brazil nuts with a difference ...

In the Amazon forest in the north of Bolivia, practically all electricity is produced by diesel generators since this remote region is not connected to the national power grid. This is not only expensive and produces high CO2 emission rates, the fuel also has to be transported over hundreds of kilometres of bad roads.

A sustainable alternative to diesel-generated electricity would be to make use of biomass residues. This region is the world's major source of Brazil nuts, which are collected from trees growing wild in the rain forest. The nuts are then prepared for export in Cobija, the provincial capital. This process also produces a residue of about 5000 tons of ligneous shells, which are ideal for generating power using the wood pyrolysis principle. atmosfair has succeeded in introducing this Indian technology, which has also been used in atmosfair's Burkina Faso project, to the operators of the nut shelling company. Construction of a 700 kW generator plant is expected to be completed in 2011; this should be able to supply electricity to roughly



Bolivia: Brazil nut shells as energy source

1000 households and save approximately 1.4 million litres of diesel fuel annually. The annual reduction in greenhouse gases is expected to be 4,000 tons CO2.

At the local stakeholder conference, the project gained widespread approval both by residents and by representatives of local institutions.

#### ... in more detail:

<https://www.atmosfair.de/index.php?id=408>

This is why UNO has developed a set of incentives as part of the Clean Development Mechanism (CDM) to ensure that auditors act as independent investigators and climate protection attorneys:

1. The auditors are liable for every certificate issued without justification and have to pay any resulting damages.
2. The auditors must prove their independence (CVs of their staff, clients etc.).
3. The auditors, in turn, are checked at regular intervals by the UN.

### The integrity council has made a decision

For atmosfair, there is absolutely no doubt - even small-scale projects must be supported. Therefore, in 2010, atmosfair's integrity council decided to permit the Gold Standard VER microscale for special cases. This standard can be applied to projects achieving CO2 reductions of up to 5,000 tons/annum. The auditing costs for these projects amount to roughly 5 % of the total costs, whereas they would be between five to ten times as high for CDM projects of this scale. To achieve this, the audit procedure is greatly simplified in contrast to the

CDM. It is conducted by the Gold Standard itself and involves only desk work.

These small projects are intended to tap new technologies and enable their use in countries where conditions are not yet ripe for large-scale projects. Currently, atmosfair is developing a biomass-electricity generating project in Bolivia as a GS microscale project (see insert). In addition, a project for increasing the efficiency of diesel-powered pumps in India is being planned as a GS microscale project. The proportion of such small-scale projects is limited to 10 %, i. e. 90 % of CO2 reduction will still be achieved in CDM projects.

### CDM reforms: atmosfair achieves initial successes

In addition to making these internal decisions, atmosfair is working internationally to back up the policy of giving smaller projects – particularly those at the household level – better access to the CDM procedure. In cooperation with partners such as WECF (Women in Europe for a Common Future), atmosfair has submitted

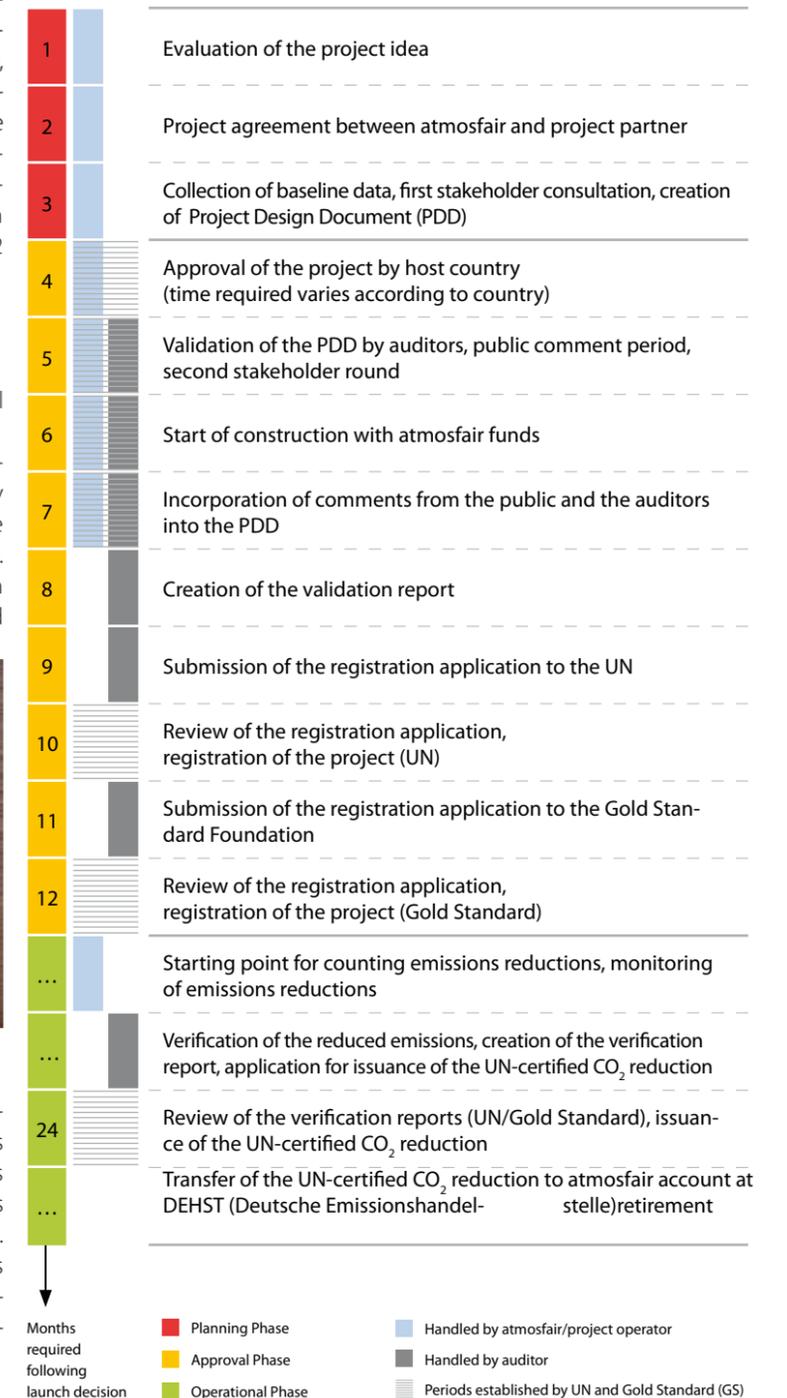


The atmosfair-project in Nigeria received an UN award

appropriate proposals to UNO, for instance, that transaction costs should be reduced and special procedures be devised for very small projects. Its first success has already been booked: simplified household projects have been explicitly mentioned in UNO documents. atmosfair's Nigeria project (in the picture above) has also received an award from the UN Climate Secretariat for its special added benefits for the local population (cf. pages 8 to 11).

### Typical progression of a CDM Gold Standard project

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





Climate protection live: Bking to an atmosfair offset project in China

**The land of fish and rice**

The Berlin-based tour operator "China by Bike" offers tourists a visit to an atmosfair CO2 reduction project as part of its "Land of fish and rice" tour. The first tour group visited the project in March 2010. atmosfair interviewed the founder of "China By Bike", Volker Häring, and asked him about the visit.

**What made you decide to include this CO2 reduction project in the tour?**

**Volker Häring:** China By Bike doesn't just offer bike and trekking tours to the remotest parts of China. Climate protection is important to us. Our tours are climate neutral: Not only do we travel by bicycle, we also offset the emissions we cause. It is therefore only logical for us to offer visits to CO2 reduction projects supported by atmosfair. This is a way of showing our guests how CO2 reduction works.

**And how did you implement the idea?**

**Häring:** I am a great fan of China and its traditional peasant culture. China is very diverse: booming technological developments on the one hand and a return to ancient traditions on the other. On this tour we learn a lot about water: we visit water villages and commercial towns criss-crossed by numerous canals and we pass huge rice plantations and tea ter-

aces which are irrigated using traditional hydraulic pumps. This technology is very old and was in danger of being forgotten. But thanks to atmosfair's support for the project, a lot of diesel pumps have been replaced by this ancient, traditional irrigation technology, avoiding 2,000 tons of CO2 emissions every year!

**What was the reaction of your guests? Did they enjoy this part of the tour?**

**Häring:** Our visit to the project was a big highlight of the tour. The farmers introduced the project to our guests and they were allowed to operate and test the pumps for themselves. It was very touching to see how proud and thankful the peasants are and it was good to see that they actually benefit directly from the CO2 reduction project. At the end of the visit the mayor even invited our tour group to his home for dinner!

**How do the local people benefit from the project?**

**Häring:** The air is clearer, the harvests are better and the costs are lower. It doesn't get much better than that.

Link to the trip:  
www.china-by-bike.de/touren/yumi.php

Cooperation with tour operators



**atmosfair Award 2010: tour operator honoured for his commitment to CO2 reduction**

People are willing to help: According to a study by the German magazine "Der Spiegel", two thirds of all airline passengers are willing to offset the emissions they cause. However, the number of passengers who actually do contribute to CO2 reduction is still not enough. In fact, less than 1 % of all flights in Germany are offset environmentally. In total, millions of tons of CO2 emitted year by year are not offset!



Many tour operators are campaigning for change. They try to make it easier for customers to contribute their share voluntarily or sometimes even make a contribution themselves. atmosfair supports them by offering various communication and integration models. In order to encourage their commitment, atmosfair has set up a competition for air travel operators and in 2010 the first operators were honoured with this award.



"Vamos Eltern Kind Reisen" achieved the best results: Two thirds of all greenhouse gases produced on Vamos flights were offset. "Island Erlebnisreisen" came second and "Auf und Davon Reisen", "Lernen und Helfen Sprachreisen" and "biss Reisen" shared bronze.

**atmosfair can be booked at local travel bureaus**

In line with the slogan "CO2 reduction is part of the journey", many online travel agencies offer their customers a carbon offset in addition to their booking. However, only every second customer books his holiday online. 50 % of all travellers book offline at a travel bureau.

In order to help these travellers contribute their share to CO2 reduction more conveniently, atmosfair has developed a new module in cooperation with the ticket wholesaler "Aerticket" and the "Sabre" booking platform. Travel bureau employees are now able to calculate the climatic impact of the flight by simply entering a query in the booking system and can then offer the customer the option of offsetting his/her emissions via atmosfair. Travel bureaus which use a different booking system than Sabre can access the platform-independent atmosfair travel bureau portal. This portal allows them to calculate contributions to CO2 reduction and carbon offsets for the whole journey by train or plane, as well as for hotels or cruises.

In both cases the customer receives a certificate and a donation receipt from his travel bureau immediately when he books the trip.



## atmosfair at the airport



At Hamburg Airport celebrities advertise for atmosfair.

### Celebrities for CO2 reduction

Sönke Wortmann does it, Judith Döcker does it and Ruud van Nistelrooy, Daniel Brühl and Lisa Martinek do it, too: They all fly atmosfair and they show it: On huge posters, these celebrities encourage other airline passengers to make their contribution towards reducing CO2 emissions.

Their names and faces are clearly visible in the Hamburg-Fuhlsbüttel airport terminal. This campaign is the result of cooperation between the airport operator and atmosfair. The city of Hamburg and the metropolitan region have also contributed to the campaign.

CO2 reduction has become even easier for airline passengers since the launch of this campaign. Passengers can make their donation via text messages. A lump sum of 10€ is debited to the sender's telephone account. This money is used to offset 300kg of CO2 – the equivalent of the amount produced per passenger on a return flight between Hamburg and Stuttgart.

This campaign not only supports atmosfair CO2 reduction projects in Africa, Asia or Latin America. 3 out of 10 donated euros are invested in regional projects for the restoration of moors or for raising the awareness of children and young people.

Lisa Martinek (actress):

*"People often make donations to appease their conscience. For me, it is important to support organizations which use the money in a sensible and effective manner, so that it reaches the people who need it. atmosfair is one of these organizations and therefore I enjoy making donations to atmosfair."*



### Cities fly atmosfair

Apart from the airports, other public institutions actively commit themselves to CO2 reduction as well. An increasing number of cities and municipalities offset the climate effect of their employees' business trips, cities such as Munich, Hamburg, Bonn, Dusseldorf, Freiburg and Hanover – to name only a few.

### Business travel: a reproducible method for calculating CO2 emissions

A sustainability strategy without CO2 offsets for business trips? Difficult to imagine. For many companies, offsetting business trips is already an established part of their CO2 reduction strategy since they are aware that large-scale investors and rating agencies take corporate CO2 reduction strategies into consideration. However, there has been no reproducible standard for CO2 reporting of business trips, including train trips, rented cars, flights and hotels.

In order to close this gap, atmosfair, the German Travel Management Association [Verband Deutsches Reise-Management] and the "AirPlus" credit card provider joined forces and developed a reporting standard. This standard defines a uniform method for calculating CO2 emissions and can be applied all over the world.

atmosfair's corporate customers are offered an additional special service: their flight report additionally states the emission avoidance results calculated using the methods of the British Department for Environment, Food and Rural Affairs (DEFRA) and the International Civil Aviation Organization (ICAO).

## atmosfair at sea

### CO2 emission calculator for cruises

"A trip by sea, what fun it can be!" – an increasing number of people share this attitude – to the satisfaction of the cruise ship companies. The market is booming. No other branch of global tourism has such striking growth rates. Unfortunately, the cruises are no fun for the environment. Depending on the cruise ship and the booking class, a single passenger causes between 50 and 500 kg CO2 emissions per day.

Similar to the aviation industry, it is difficult for shipyards to build more climate-friendly ships: clean energy sources are not easy to use at sea. So in order to help cruise ship passengers in making a contribution to climate protection, atmosfair has developed a special emissions calculator. The CO2 emissions per passenger are calculated on the basis of the size of the ship, the number of days at sea and in port as well as the cabin size. The calculator is available free of charge on the atmosfair website and is also available to tour operators.



The first cruise line to cooperate with atmosfair was Hapag-Lloyd. Customers can calculate their personal contribution to CO2 reduction with the emissions calculator provided on [www.hapag.de](http://www.hapag.de) and [www.atmosfair.de](http://www.atmosfair.de), and Hapag Lloyd offers even more: for bookings made via telephone or at a travel bureau, Hapag Lloyd will pay a quarter of the total voluntary contribution of each passenger.



Quelle: Hapag-Lloyd



Passengers of the river cruise line "Lüftner Cruises" can also contribute to CO2 reduction. Lüftner Cruises is the first river cruise operator in Europe to offer its guests on board AMADEUS ships the option of offsetting their carbon footprint during the trip by making a donation to atmosfair. The company adds 25% to each donation. Lüftner Cruises has already been awarded the Green Globe Certification and is thus one of the pioneers in environmentally-friendly river cruises.

Emissions of a cruise (7 days, balcony cabin, middle sized vessel, without journey)	1.800 kg CO <sub>2</sub>
Flight to Gran Canaria und return	1.600 kg CO <sub>2</sub>
Annual emissions of an Indian	900 kg CO <sub>2</sub>
1 year use of a flatscreen TV	250 kg CO <sub>2</sub>
Environmentally sound annual climate budget of a person	2.300 kg CO <sub>2</sub>

Typical climate impacts of different activities of a single person



Quelle: atmosfair GmbH

**atmosfair presents the first climate ranking of the world's 100 largest airlines**

For several years now, motorists have been able to obtain detailed information on the CO2 emissions of a car before buying it. Airline passengers on the other hand were left in the dark. The "atmosfair Airline Index" has now put some light on the matter. This index was first presented at the world's leading travel trade show, ITB, in 2011.

atmosfair analysed the data of the world's 130 largest airlines, calculated their CO2 emissions per passenger kilometre on short, medium and long-haul flights and compared the airlines with each other. This is particularly interesting for companies with a high volume of business trips: changing the airline not only helps companies to reduce CO2 emissions but in many cases also brings significant savings on tickets.

For this reason, atmosfair additionally offers companies detailed analyses of individual routes, e. g. between certain capital cities of the EU or of flights to China. These analyses show which airline has the least negative effect on the environment.

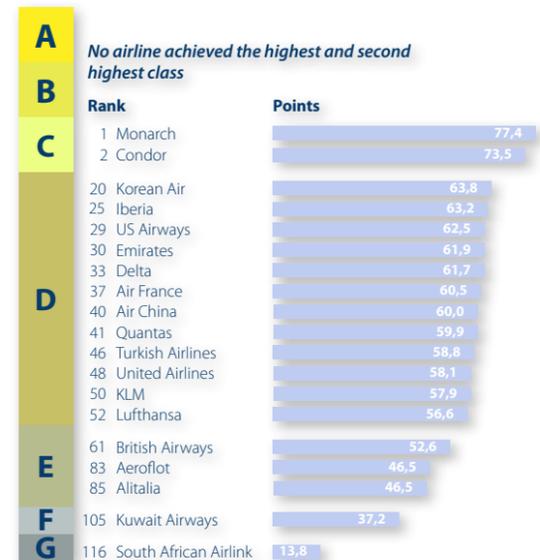
**Contracting according to environmental aspects**

Detail analyses of individual routes may lead to recommendations that a company should change to a certain airline. This evaluation is also useful for ITTs in the business sector if a large company wishes to base the placing of an order on environmental criteria.

Indeed, the difference between the various airlines can be quite considerable: the fuel consumption of one airline per passenger and kilometre can be more than double that of another airline flying the same route. The best values are obtained by airlines which use modern aircraft with modern engines, fit a larger number of seats in the plane, and utilize both passenger and cargo capacities efficiently.

The Airline Index was based on data sources using detailed computer models of more than 100 aircraft models (97% of all flights worldwide) and a series of specialized international aviation industry data services, but not those of the actual airlines. The data sources used by atmosfair cover approx. 92% of global air traffic.

More information on: [www.atmosfair.de/airlineindex](http://www.atmosfair.de/airlineindex)



**Air travel tax and EU emission trading**

At the beginning of 2011, Germany introduced an air travel tax. This applies to all flights taking off in Germany and amounts to 8, 25 or 45 euros per passenger, respectively, depending on whether it is a short-haul, medium-haul or long-haul flight. As this income is being used solely to reduce German budget debt, the only ecological effect it has is to reduce the demand for flights by making flying more expensive. However, initial studies have shown that the number of flights has not decreased, neither on long-distance routes (the study focused on flights to the USA) nor on short-hauls.

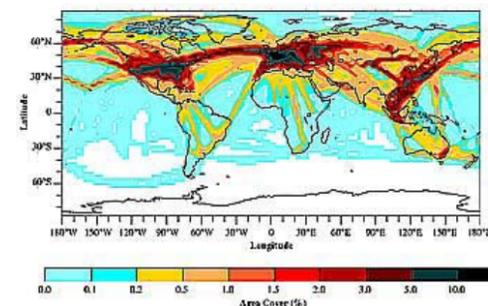
Prof. Dr. Hartmut Grassl (atmosfair's patron): **"There is still no international, European or national arrangement to put the development of air traffic on a climate-friendly track. As long as this is the case, passengers can make an effective and verified contribution using atmosfair."**



From 2012 onwards, air traffic will be integrated into the European emissions trading system (for details please refer to atmosfair's Annual Report 2009). Although this system was explicitly conceived to reduce greenhouse gases, its effectiveness will probably be just as low as that of the German air travel tax. This EU system is expected to cause price increases of no more than around 5-10 euros per ticket, even on the longest flights.

The illustration shows the average coverage of the sky by long-lasting condensation trails. Peaks of more than 10% have been identified, for instance over central Europe and the Eastern USA. Up to now, no figures were known on the cirrostratus cloud coverage levels induced by air traffic.

Quelle: IPCC, 1999



**The creation of clouds by air traffic: DLR CONFIRMS atmosfair's estimate**

In March 2011 it was made 'official': The cirrostratus clouds and condensation trails created by aircraft contribute to global warming. This has been scientifically proved in detailed calculations used in a new study by the German Aerospace Center (DLR). According to this, the radiative forcing (rf) and thus the global warming effect of these artificial clouds is almost 40mW/m2 and is therefore more than that of the entire CO2 emitted by air traffic since the middle of the 20th century.

In particular, the DLR study presents a new method of estimating cirrostratus cloud effects, not by their global coverage rate alone, as was the case up to now, but by directly calculating their creation from particles and water vapour in the jet exhaust gases in a computer simulation.

However, the new results do not affect atmosfair, which had already included the climatic effects of cirrostratus clouds in its calculations on the climate balance of air flights using the best possible estimate. This estimate was almost identical to the results produced by the new study. These figures also corresponded to a recommendation of the German Federal Environmental Agency. The conclusion is that due to methane decomposition, condensation trails, the creation of ozone and cirrostratus clouds, the climatic impact of air traffic at high altitudes is three times that of CO2 emissions alone.



Current DLR study confirms that cirrus clouds caused by flights contribute to global warming.



Quelle: atmosfair

In the year 2010, atmosfair continued its trend of growth. Donations increased to over 3 million euros. 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 2010. 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 2009 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 2010.

### Financially independent

In 2010, 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 2010 nor, conversely, did atmosfair make any payment to the Stiftung Zukunftsfähigkeit, its sole associate.

### Revenues and expenditures

In the year 2010, clients paid a total of about 2.2 million euros 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 2.3 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 110,000 euro for the year. Thus, a total of nearly 2.4 million was spent on climate projects in 2010.

In the year 2010, 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

31.12.2010			
Assets	€	Capital, Reserves, Liabilities	€
<b>A. Non-current Assets</b>	<b>10,219.00</b>	<b>A. Equity Capital</b>	<b>5,568,861.9</b>
I. Intangible Assets	1,945.00	I. Subscribed Capital	25,000.00
II. Tangible Assets	8,274.00	II. Reserves for purposes defined in articles of incorporation	
		- Reserves for climate protection projects	4,702,261.49
		- Free Reserves (also usable for climate protection projects)	841,600.00
<b>B. Current Assets</b>	<b>5,841,324.64</b>	<b>B. Provisions for liabilities and charges</b>	<b>58,479.29</b>
I. Assets	538,251.00	- tax accrual	49,118.35
II. Receivables and other Assets		- other accruals	9,360.94
- trade accounts receivables	167,489.74		
- other Assets	67,197.05		
III. Checks, cash-in-hand, bank balances	5,068,386.85		
<b>C. Deferred expenses and accrued income</b>	<b>1,309.04</b>	<b>C. Liabilities</b>	<b>225,511.90</b>
		- trade accounts payable	8,260.65
		- liabilities to banks	0.0
		- advance payments	178,874.00
		- Other liabilities	38,377.25
<b>Total</b>	<b>5,852,852.68</b>	<b>Total</b>	<b>5,852,852.68</b>

**Profit and loss statement of atmosfair gGmbH**

	2010	2010	2009
	€	%	€
<b>Revenues</b>			
Offset fees for CO <sub>2</sub> -reduction projects	2,153,162	86.4	2,255,464
Funding of the German Ministry for the Environment: Planning and realization of biomass gasification in Burkina Faso	339,430	13.6	189,550
CO <sub>2</sub> -Reporting Software and consultancy, before tax*	472,892	19.0	147,808
Offset Projects customer ordered, means for technology purchases	104,265	4.2	-
Other revenues (interest etc.)	61,897	2.5	44,542
<b>Total</b>	<b>3,131,647</b>	<b>125.6</b>	<b>2,637,363</b>
<b>Expenditures</b>			
<b>a) Offset projects</b>			
- Payments <i>(Construction and operation including assessment by TÜV etc.; project planning and support)</i>	524,883	21.1	546,005
- Offset Projects customer ordered, means for technology purchases	104,265	4.2	-
- Reserves for climate protection projects	1,652,144	66.3	1,517,355
- atmosfair's project planning and support in Germany)	110,438	4.4	206,201
<b>Total</b>	<b>2,391,731</b>	<b>96.0</b>	<b>2,269,561</b>
<b>b) Staff</b>			
- Donator and partner support, public relation	200,802	8.1	189,380
<b>c) Business Operations (BO)</b>			
- Expenditures for BO*, CO <sub>2</sub> -Balancing software, Climate service for businesses	180,965	7.3	
- Expenditures for BO*, Staff	150,360	6.0	
- Tax on turnover from BO*	81,459	3.3	14,653
<b>d) Other expenditures</b>			
- Administration <i>telecommunication, postal charges, office supplies, assurances, membership fees, exchange rate differences, depreciations)</i>	26,225	1.1	47,735
- Office <i>(rent etc.)</i>	17,501	0.7	21,268
- Credit card fees, cash service, account fees	10,431	0.4	26,753
- IT <i>(charges, maintenance, server rent)</i>	20,915	0.8	19,379
- Tax accountancy Annual Report	12,779	0.5	2,075
- Printing costs for publications	8,919	0.4	38,215
- Service contracts	15,251	0.6	
- Business travels	14,308	0.6	8,345
- Advertisement (e.g. ads, posters, commercials, promotion teams)	0	0.0	0
<b>Total</b>	<b>126,330</b>	<b>8.3</b>	<b>178,423</b>
<b>Summe</b>	<b>3,131,647</b>	<b>125.6</b>	<b>2,637,363</b>
<b>Result after reserves for climate protection projects</b>	<b>0.00</b>		<b>0.00</b>

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

At the end of 2010, atmosfair was committed to dispersing a total of about 9.6 million euro to project operators. These financial obligations exceed its reserves, which totaled to approximately 4.3 million euros as of the end of 2010. 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 general administration costs (phone, postal charges, assurance and office supply) amount to just under 50,000 euros, 17,000 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 26,000 euros were spent for this purpose.

**Cost reduction by own profits**

In 2010, atmosfair received commercial revenues of about 472.000 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**

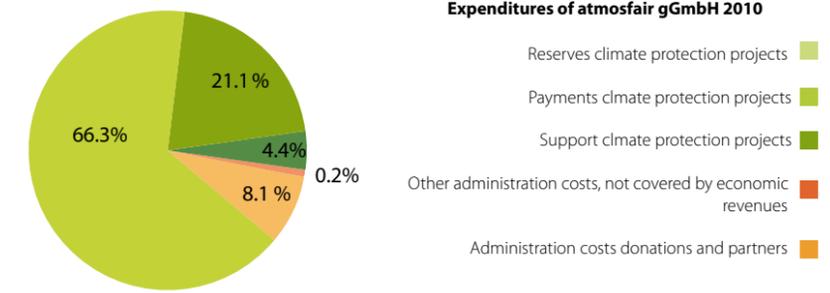
One of the atmosfair standards stipulates the efficient use of all donations and thus only a small part of the donations is used to cover administration costs. The costs referred to here are resources that are not invested directly in the climate protection projects abroad but are instead used by atmosfair itself. In the year 2010, 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.

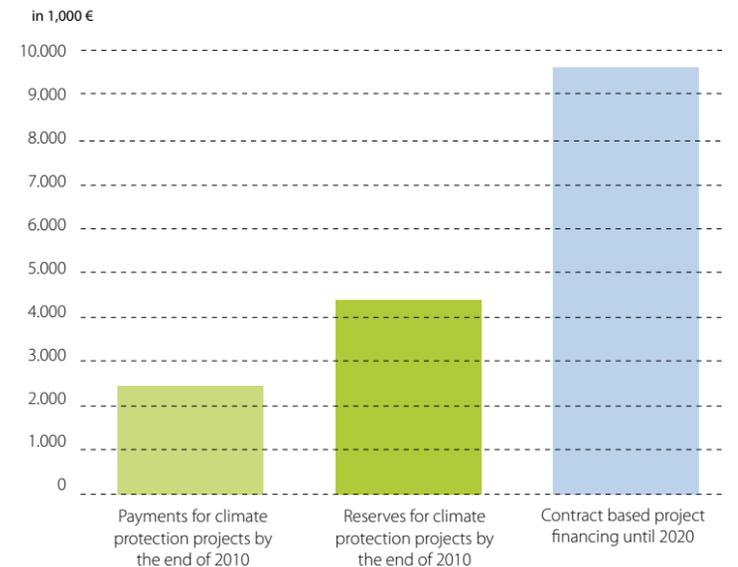
**Achievement of objectives**

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.

**Statements reviewed and managing director granted approval**



**Project finance, Date End 2010**



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.

**Looking ahead**

Following the success of 2010, atmosfair will continue to expand its system of voluntary CO<sub>2</sub> reduction contributions even further and will extend its existing involvement in developing countries and its network of corporate partners.

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**  
Geographer  
CDM-Projects (PoA)



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



**Florian Zerzaw**  
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



**Nicole Wilke**  
Director of KI I 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)



Partner



Climate protection project partners





Prof. Dr. Klaus Töpfer

»Climate protection with atmosfair.«



Prof. Dr. Hartmut Graßl

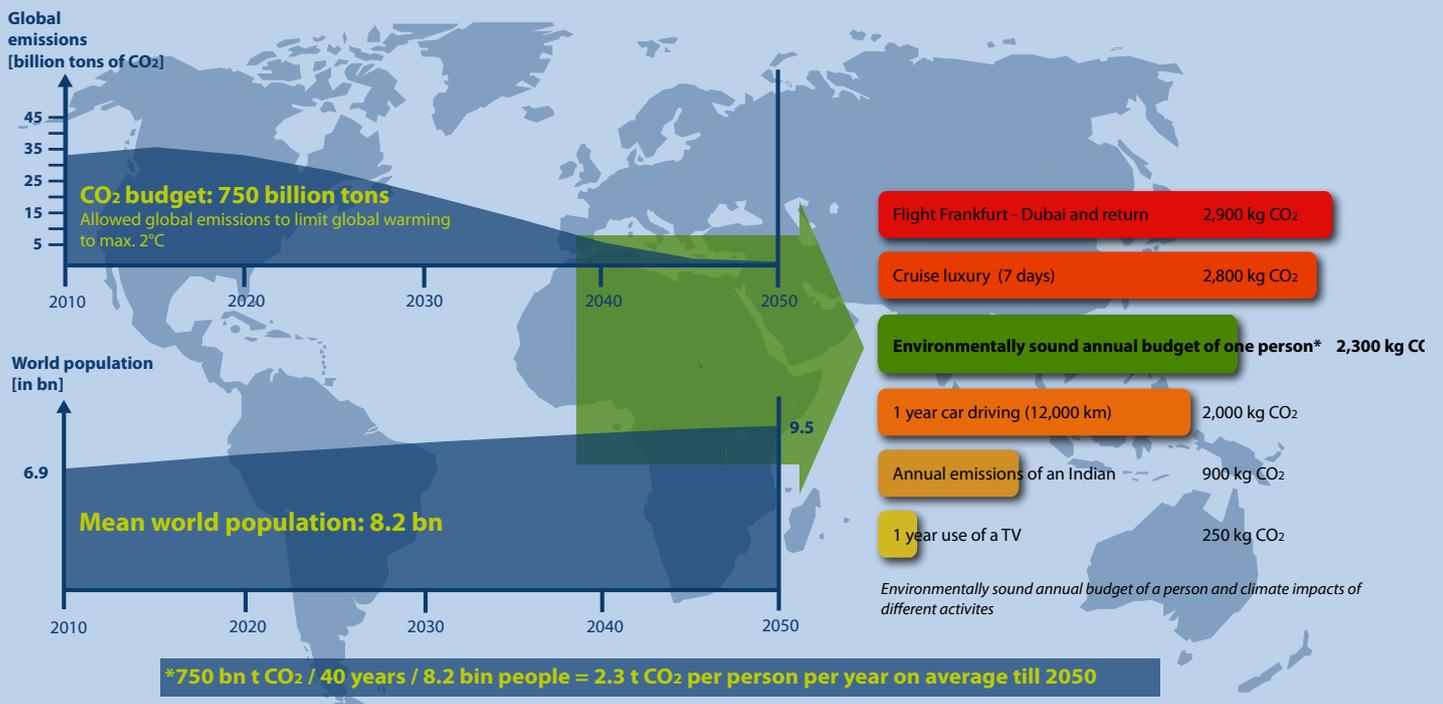
»For now flying can be only targeted with emission offsetting, but then at least with atmosfair.«



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<sub>2</sub> 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<sub>2</sub> 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.