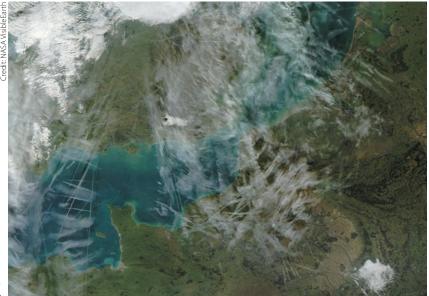




# **Annual Report 2005**



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Condensation trails above the English Channel

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#### Flag Editor: atmosfair gGmbH Editorial staff: Dr. Dietrich Brockhagen, Robert Müller Pictures: atmosfair atmosfair-project in Sringeri Mutt Cover: Dinner Druck, 100 % Recyclingpapier Print: Design: Christoph Becker Date: August 2006

# Preface

### Dear Readers,

Milestone number one: the first climate protecting projects have been contracted. 10,000 tons CO2 emissions will be saved. Thus, the requirements to fulfill the donation purpose for 2005 is exceeded.

The Atmosfair gGmbH was founded in May 2005 and rudimentary activities commenced, such as moving into an office, establishment of an administration and the identification of appropriate climate protection projects.

The initiative has thus proven to be a convincing framework, as Atmosfair was able to engage in several partnerships: besides tour operators associations, such as "Forum anders Reisen" and the "AER Reisebürokooperation", other partnerships have been established. This includes further, the city of Tübingen, the 30. protestant church convention in Hanover, the protestant academy Bad Boll, the Breuninger foundation, the network of development policy (ASA) and the catholic rural youth association. All the aforementioned partners (just a few are named at this point), have committed themselves to contribute to the climate change agenda through Atmosfair.

The employees of environmental organizations, such as Greenpeace and the Association for the protection of the environment (NABU), are flying with Atmosfair. Furthermore, Atmosfair has successfully engaged in a partnership with the corporate sector – this includes Electrolux and Münchner Rück (one of the largest reinsurer in the world). The overall goal is to reduce travel costs, by employing smart communication. Thus, the climate is in addition spared the emissions.

In 1997 a kerosene tax was proposed by all parties unilaterally in the German Bundestag. Especially the green party remains very committed in that regard: the members of the local parliament of the state of Baden-Württemberg, as well as the greens youth foundation and some members of the federal and European parliament are flying with Atmosfair.

However, 2005 has also been a decisive year for climate change: the rapid melting of the Greenland glacier ice had contradicted the established climate models. Large ice shields, that slid on their own inflicted melting water into the ocean on a fast pace, have been unthinkable in the scientific theory. Thus, the warning of rising oceanic levels of several meters is becoming reality in the near future. Henceforth, it has become obvious, that the fast growing aviation sector is heavily contributing to climate change – not only through CO2 emissions, moreover by contrails. The correlation between contrails and the impact on climate change has been scientifically established in 2005. Thus, the impact of contrails on their own could be higher than all other aviation emissions combined.



Dietrich Brockhagen, Managing director

Atmosfair is acting in accordance to environmentally sound standards that insure environmental integrity.

Atmosfair is ensuring environmental integrity by employing the Clean Development Mechanism (CDM) "Gold standard". This involves not only sound project standards, moreover accurate calculations of emissions that include aircraft type and flight altitude. Further, the communication is honest: as Atmosfair emphasizes that a most preferable cut in aviation emissions is a reduction in the number of flights. The Gold standard has been adopted by other organizations as well.

The goal of Atmosfair is, to communicate broadly the option of voluntary climate change contributions and the realization of sound climate change projects. For the future, we count on your contributions. In the sincerest thanks to all donators and supporters

Dr. Dietrich Brockhagen Managing director of Atmosfair gGmbH

Dr. D. Doollage

# Climate protection atmosfair projects



Two Indian engineers with rice in front of the solar collectors that produce the hot steam for the kitchen.

Around 10 000 tons of CO2 will be saved by the projects contracted by atmosfair for 2005. The reductions that atmosfair clients booked until the end of 2005 amount to 9 500 tons of CO2. Thus, atmosfair fulfilled its 2005 obligations. 126 000 € of donations have been put aside for the projects contracted.

The projects are developing successfully: starting with the examination of proposals and pre-selection, followed by in-depth analysis and elaboration of standardised project plans, public hearings and official announcements to hear the local population. Meanwhile, the projects have been checked according to the Gold Standard of environmental organisations by independent experts. Some of the projects have made it already to the official register of the United Nations and have started operation. With all this, atmosfair is one of the pioneers regarding the Gold Standard: three of the four projects in the Gold Standard database are promoted by atmosfair.

### India: Solar Energy substitutes diesel fuel

Solar collectors for kitchens in a place of pilgrimage

Every day thousands of pilgrims come to Sringeri Mutt, one of the most important Hindu places of pilgrimage in Karnataka on the Western coast of India. Meals for the pilgrims have been prepared with the help of diesel cookers so far. Now these will be substituted by a number of Scheffler-Solar-mirrors (see cover picture) focusing the solar radiation on a tube to heat the water in it which will subsequently be pumped into the kitchens. A sophisticated steam system ensures that the kitchen will function after sunset as well.

Sringeri Mutt is only one of 18 locations in India where energy for temples, hospitals or schools is provided by solar energy. The new equipment is scheduled to save approx. 4000 tons of CO2 until 2012. It has been produced by the Indian company of Deepak Gadhia (www.gadhi-asolar.com), there are 20 new jobs for its operation and maintenance. Moreover, the air in the kitchen so far polluted with diesel exhaust will become clean.

Atmosfair and its partner GTZ act as investors. The GTZ will use its share to compensate for the emission caused by the participants of the International Conference for Renewable Energies 2004 in Bonn.



Rice cooker

The TÜV Süd is currently responsible for official control and evaluation. During pre-evaluation they found that in two places fire wood was used for cooking instead of diesel fuel in which case it is difficult to assess the sustainability and permanence of the emission reductions. Consequently, the project is said to save 20% less CO2 than originally planned. This demonstrates the importance of independent evaluation. The TÜV was accepted in June 2006 and the project is now registered at the climate secretary of the UN.

#### At a glance...

• Technology transfer:	Scheffler parabolic mirror
------------------------	----------------------------

20

- Local environment: Reduction of air pollution
- New employment:
- CO2 reduction atmosfair: 500 tons
- Environmental standard CDM Gold Standard
- Partners: Gadhia Solar, TÜV Süd, GTZ

#### ... and in detail:

- Project design document (PDD)
- Results of the public hearings
- Report of Validation of TÜV ..

... can be downloaded from the official site of the UN http://cdm.unfccc.int/Projects Enter 0414 as reference number into the search engine "Project search" (left hand side).



Dining Halll

### Thailand: Cleaning sewage water protects climate

Palm-oil-factory applies new technology for cleaning and recycling fruit waste

Close to the costal city Chumporn in the South of Thailand there is, since 25 years, a palm-oil-factory of "Chumporn Palm Oil Industry" (CPI). About 800 local employees produce oil from palm fruits for the Thai as well as for the international market. Due to its location in an area cultivated traditionally the palm plantations are not in danger of growing into any areas of rain forests. Palm oil is used for cooking or as raw material for candles, cosmetics and candies.



Past: Sewage in the lagoon

> Squeezing the fruits produces sewage containing pulp. So far, this sewage has been stored in a lagoon where the pulp mud decays under water which is subsequently used for irrigating the surrounding fields. During fermentation the strong greenhouse gas methane is set free developing an offensive smell most disagreeable to the neighbouring population. Now CPI is building a new sewage system.

> It will be one of the first of its kind in Thailand. A series



Present: Construction of the plant of sand-bed- and biogas-filters will be installed to clean the water and to use the methane for heating in the production process itself. Thus, the new system serves to protect the climate, the neighbours and the workers, as no more methane is released. The new technology was developed by a Thai-Dutch team in a common project.

TÜV as official controller has approved the plan of the project with only few changes in 2005. Next, the Thai government will have to certify that the project contributes to a sustainable development in Thailand. This is likely to be more or less a formality, but due to present political uncertainties the final decision may be delayed. What is important to atmosfair is the evidence that current and possible future plantings of oil palms will not affect the existing rain forest, because the rain forest zone further up the mountains is not attractive for agricultural use.

The emission savings are planned to be achieved by the end of 2008. Further savings of emission of the project will be used by our Partner GTZ for their own business flights.

#### At a glance ...

lechnology transfer:	mechanical biological
	cleaning of sewage
Local environment:	cleaning water,
	reducing smell
CO2 reduction atmosfa	ir: 10 000 tons
Environmental criteria:	CDM Gold Standard
Partner: CPI, GTZ,	TÜV Süd, WWF-Thailand

#### ... and in detail:

- Project design document (PDD)
- Results of the public hearings
- Report of Validation of TÜV ...

can be downloaded from the official site of the UN http://cdm.unfccc.int/Projects/Validation Enter "Chumporn" as "title" into the search engine. More information, i.a. on rainforest, at www.atmosfair.de

# **Brazil and South Africa**

#### Brazil: Recycling for Electricity

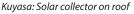
The University of Rio de Janeiro produces around 30 tons of waste every day. During the open-air decomposition process methane is produced. This indeed does happen very often in developing countries, as there are hardly any regulations and technology for waste treatment. For this reason the University of Rio and the Brazilian company "Usina Verde" developed a system to mineralise waste with the help of a new technology. The new way of burning waste in a closed process cycle is supposed to produce mainly salts of harmless kinds. Moreover, the heat of the process serves to produce electricity. New jobs are created and the living conditions of garbage collectors are improved.

At present the evaluation of the project according to the Gold Standard is not yet certain. The partner in this project, the Brazilian NGO South-SouthNorth, announced its intention in November 2005 to get the approval for the Gold Standard during the next few months. But ongoing delays cast doubts. The technology patented only recently is still being tested, thus its local impact on the environment cannot yet be finally ascertained. Taking into account previous delays atmosfair only sees a very limited chance of success for this project. No funds have been spent on the project so far, since atmosfair will contract definite project agreements only in case the Gold Standard (see box page 17) has in fact been granted to a given project.

#### South Afrika: Solar power and insulated roofs for villages

This project is implemented in Kuyasa, to the south of South African capital Cape Town, where houses in a settlement are equipped with solar heaters (for warm water), isolating plates and energy saving lamps. As a pilot project, it has been officially registered. However the project came to a halt for atmosfair after a marketing agreement at the beginning of 2005: for uniting project management and administration, the city of Cape Town plans the installation of a new institution. As long as this step is not accomplished the city of Cape Town does not accept financial contributions to the project. Since this situation has not been changed for more than a year by now.



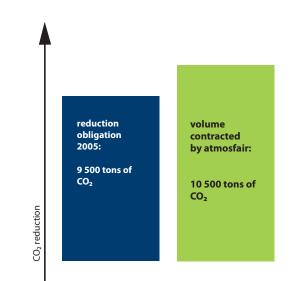




Garbage plant in Rio

#### Objective met: atmosfair accomplishes reduction task of 2005

Out of the 4 projects described above, the ones in India and Thailand run in line with the plans. In Thailand only the formal permission of the Thai government is missing. Until the end of 2005 clients donated for around 9 500 tons of CO2 to be saved by atmosfair. By 31.12.2005 atmosfair held contracts for 10 5000 tons of CO2 reductions. This is the amount to be saved due to the projects by 2008. The projects in Brazil and South Africa have not been included in the calculation, for reasons of precaution. Yet, all in all atmosfair is fulfilling its obligations to the clients. In the years to come, the projects will remain under close observation and control to make sure that the projects achieve the emission reductions as scheduled.



# Status of the atmosfair projects at a glance\*

Planning

Examination of project idea

Detailed project plan (PDD)

GTZ and atmosfair

Contract between Ghadia Solar,

 $\sim$ 

 $\checkmark$ 

ΤÜV

Validation + Construction

Validation of the project plan through

Registration at the Climate Secertary of

Validation + Construction

Hearing of the local population

the United Nations (UNDFCCC)

Hearing of the local population

Beginning of construction

through TÜV

• First validation of the project plan

Validation + Construction

• Hearing of the local population

Operation

cookers

Operation

Operation

Ongoing constructions

Starting operation of first solar

	Planning		
	• Examination of project idea • Detailed project plan (PDD) • Contract between CPI, GTZ and atmosfair		
d: sewage cleaning at palm oil production			
	Planning		
	Examination of project idea     Detailed project plan (PDD)     Contract between     SouthSouthNorth and atmos		
nergy from Garbage Incineration at the University of Rio			

and atmosfair Brazil: Er ity of Rio Validation + Construction Operation Planning Examination of project idea Detailed project plan (PDD) No agreement between operator and atmosfair so far

#### South Africa: Solar Energy and Insulation at a Township of Cape Tow

\*as of July 2006

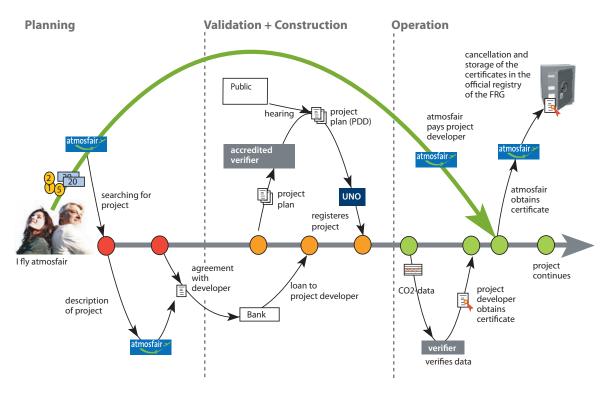
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All projects that are supported by atmosfair must meet the CDM Gold Standard, meaning the highest standards in terms of control and substance of the projects. Our experience shows that the effort is worth while: Taking into account the huge number of project proposals the strict application of criteria according to the Gold Standard are crucial to safeguard environmental integrity. At present there are only 4 Gold Standard projects world wide (www.cdmgoldstandard.org) - 3 of them are atmosfair projects. For achieving the Gold Standard a project has to pass several stages as shown on page 9.

#### Phase 1: Search for projects

Using established contacts and international networks atmosfair started a tender for projects. After a first examination of documents for over 70 projects, atmosfair got into contact with the developers to pre-check quality and the chances for successful implementation. 14 projects were short-listed, of these, 7 projects came up with an available project-design. All projects had the potential of fulfilling the Gold Standards, 9 had even been designed from the beginning as Gold Standard Projects. In the end there were only 4 projects remaining that met the atmosfair requirements. In most cases missing evidence for the so-called "additionality" of the project (see box page 18) was the reason for non-ad-

# **CDM Gold Standard**



Cycle of CDM-Project

#### CDM – Gold Standard

The CDM (Clean Development Mechanism, Art. 12 of the Kyoto Protocol) determines rules for the control and implementation of climate protection projects. These rules require a UN-accredited expert (controller) who must prove his (or her) independence and expertise. The expert is liable for any errors of his own. The validation consists of different steps: before beginning, during operation and at the end of the project, when the controlling expert testifies to the emission reductions accomplished. Certificates are stored in national registers. Atmosfair uses this system and has its own account in the German register.

The Gold Standards for CDM projects has been developed by international environmental organisations such as the WWF. Only renewable energies and energy efficiency are permitted. Projects must also prove their benefits in terms of sustainable development. This includes the local environment, social sustainability and socio-economic development. Furthermore the additionality (see box on page x) of the project must be proved, using economic indicators.

Only in combination, the CDM and the Gold Standard guarantee the necessary degree of environmental integrity: demanding criteria and their independent examination. mittance; in other cases the reduction potential calculated or the project-schedule seemed too optimistic.

Atmosfairs' Advisory Board for Environmental Standards (see page 21) approved the new project in Thailand, while the others had already been dealt with in 2004. In order to reduce the risk of bad investment, atmosfair follows a well established principle: the contract is signed before the beginning of the project, but payment is due only after the actual reduction of greenhouse gases has been acknowledged by an independent controller. By this approach, operators of a project have a real chance to find investors and loans. On the other hand, atmosfair draws a line (made clear in advance) against losing money in projects that fail in their results. Exceptions are possible: some projects need financial support right at the beginning to get started at all: with a preliminary risk assessment, atmosfair may occasionally do this.



#### **Phase 2: Initial Assessment of Local Conditions**

In the cases of the projects in Thailand and India staff of TÜV Süd examined the project plans according to the Gold Standards criteria in the respective localities, also consulting the local population; the project design documents were published on the webpage of the UN climate secretary (UNFCCC) to allow a worldwide hearing. At this important stage, other projects had already failed due to resistance of the stakeholders. However, no objections were raised against the atmosfair projects, neither by the local population nor by environmental NGOs. The questions of participants during the hearings and the answers are documented in the project design document.

Shortisted project candidates			
Project	Country		
Solarthermal energy for households	Argentia		
Electricity from waste for university	Brazil		
Small hydro for grid supply	India		
Windpower for grid supply	India		
Biogas for grid supply	India		
Solarthermal energy for kitchens	India		
Solarthermal energy for households	Indonesia		
Biogas	Malaysia		
Solar power for hoseholds	Marocco		
Windpower for grid supply	Seychelles		
Energy efficiency for households	South Africa		
Windpower for grid supply	South Africa		
Sewage cleaning palm oil production	Thailand		

A crucial part of the assessment refers to the topic of the additionality of the project and the amounts of CO2 reduced. For the atmosfair project in India the planned amount of reduction had to be decreased (see above). This is not unusual: experience shows that under external audits many projects reach about one third less CO2 reductions than originally planned. The reason is that investors and operators of a project have an interest in saving the maximum amount possible and may tend to start their calculations from too optimistic expectations. Therefore, independent examination is of great importance: done by staff paid for and, at the same time, liable for their job.

In the Brazil project, too the Gold Standard turned out to be the crucial point. It is questionable whether these points would have also been raised in a less strict evaluation. But this is the only way to guarantee that the money given to atmosfair really helps to reduce the strain on the atmosphere.

#### Additionality

A project is "additional" when it couldn't have been realised without the financial support of atmosfair. It is a fundamental premise for mitigation of global warming. Additionality cannot be taken for granted, since climate projects often do save both energy and costs so that they often may also be attractive economically (thus needing no funding by donation).

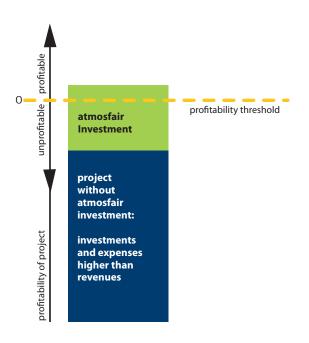
Additionality therefore can be most easily proven for projects with a (present) disproportion between funding required and amount of avoided emission (e.g. solar buses). With those kinds of projects the climate fee for an intercontinental flight with atmosfair would cost over 1000 €. This is why normally projects are only partly financed by atmosfair: just as much to get the project from a negative to a positive profitability. This is the challenge when demonstrating additionality: the project candidates must show their financial details to prove that the financial support through atmosfair is vital for realising a sensible project that could not gain support otherwise.

#### **Phase 3: Operation and Documentation**

Controlling personnel will play a crucial role again in 2007 or 2008 when it comes to measuring the real reduction achieved in the projects. This will be done on the basis of the data recorded. Reports of the independent experts will come to atmosfair in the form of certificates. Atmosfair will store these in its account at the German official registry. The account was opened in 2005. Its official statements are accessible to the public.

#### **Costs of the verification**

The cost of assessment and documentation of the project etc. amounts to approx. 3 % of the total cost of the Thailand project; the percentage is higher in the case of smaller projects. If the projects are very small, there has to be joint checking to justify expenditure. This is done in the India project of Atmosfair, to be implemented at many different locations. The cost will be paid by the respective project developers, this is part of the contract with atmosfair.



Additionality: financial support of atmosfair enables climate protection projects



The Indian project developer Gadhia visits atmosfair: From left to right: R. Müller, D. Brockhagen, both atmosfair, H. Liptow, GTZ, Deepak and Shirin Gadhia

#### Improved transparency

In 2005 atmosfair received and answered over 2000 emails. Many of them were about the projects and the actual development as well as the function and background. We learned that the information on the atmosfair web page could be presented in a more transparent way. Thus atmosfair developed a new part on its web site which presents the projects in a systematic way and allows the interested visitor to get more information about the projects (for example the project plans). As the documentation is contained in official documents, it can also be found and downloaded from the UN web page. This enables customers to obtain qualified information independent from atmosfair.

#### Lessons learned and the future

In future, project planning and controlling will continue to require a lot of dedication and energy. The current amount of donations is too small to set up and conduct a project entirely by ourselves. That, however, is not our goal anyway: The cooperation with partners in the host countries is necessary and vital in order to make the projects meet the demand of the people. With growing revenues atmosfair will extend the network of partners. Part of this network, too, is a growing number of German organisations and companies which have gained experience and expertise with technologies of climate protection.

# Tourism with atmosfair



Three environment psychologists as interviewees at the stall of atmosfair at Hannover Airport. The study, which analysed the passangers attitude to climate protection, was financed by the Department of Environment.

So far atmosfair could win approx. 70 small and medium-sized tour operators as business partners. We want to help these tour operators to reduce their clients' conflict of aims: on the one hand they want to travel to foreign countries but on the other hand they know that each flight affects the climate. Tour operators that deal with the topic of environmental pollution and don't keep quiet about it do not have any disadvantage - on the contrary: research results show that many travellers are aware of these problems. That does not mean that they would pay immediately the atmosfair contribution to climate protection. But they do appreciate the information as part of modern services. Time will show if atmosfair will be accepted by the big tour operators as well. One principle will remain the same: for tour operators, agencies or direct clients - supporting atmosfair will be on a voluntary basis.

### Partners in the tourism industry

#### **Forum anders reisen**

The majority of our tour operator partners is organised in the forum anders reisen, an association committed on sustainability. The association can be seen as a pioneer within the tourism branch, as awards like the "Golden Palm" for innovative travelling show. atmosfair was partly initiated by forum anders reisen. Nearly all tour operators of this association who offer flights, decided to make atmosfair known to their clients. For the association the commitment was worth it. General Manager Rolf Pfeifer comes to a positive conclusion: he assures that innovations like atmosfair are behind the upward trend of the association and essential in creating a positive image. This is proved by the huge interest of the media; many atmosfair tour operators were interviewed on television and radio stations and were quoted in a number of positive newspaper articles.

Different kinds of cooperation models between atmosfair and the tour operators have been developed. While the approach of putting information into the booking documents of clients proved not to be effective, they were most easily addressed during booking. There are two alternatives: atmosfair can be booked via paper formsheet or via the website of the tour operator. For both possibilities atmosfair has developed the suitable software to minimize the tour operator's work.





right side: Rainer Hageloch, executive board, AER– Travel Agency Cooperation left side: Rolf Pfeifer, CEO, forum anders reisen

#### AER Travel Agency Cooperation

Our experiences so far show that atmosfair is well accepted by small tour operators focusing on the ecological market segment. atmosfair thus only reaches a small part of the German travel market, however. In future atmosfair will put more effort in other market segments as well. There won't be any fear of contacts: ater all, it does not matter for the atmosphere which kind of tour operator a client booked with.

#### **Attentive tourism companies**

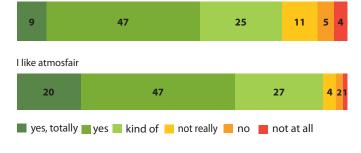
The large travel companies, too, have realised the growing importance of climate issues. On the other hand there are other issues to deal with, as the tourism industry just starts to recover after a long period of decline. atmosfair got into contact with all the major companies in 2005 and so came to know their attitudes and opinions – to be taken into account in future. Two facts are to be pointed out.

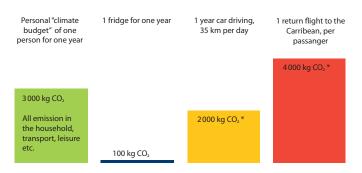
#### General evaluation of atmosfair (%)

Out of 100 a survey on behalf of the Department of Environment came to the following results:

- 85 believe that airtravel contributes to global warming.
- 60 estimate the emission of their flight too little.
- 35 say they would pay the atmosfair contribution.
  50 would like to get the information of atmosfair from travel agencies and tour operators.
- 95 like atmosfair.

I think the costs for contribution to climate protection are appropriate





#### **Climate protection and holidays**

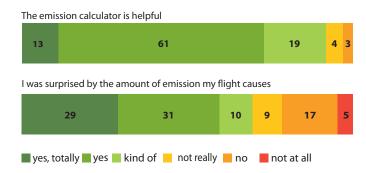
\* Aircraft and car exhaust fumes does not only consist of CO,. The different harmfull substances are converted into the actual level of warming that the corresponding amout of CO, emission would cause

The big tour operators have realised as well the growing importance of climate issues. On the other hand there are other issues to deal with as the tourism industry just starts to recover from a long period of declining. But atmosfair was in contact with all big tour operators in 2005 and got to know their attitude and opinion and can take this into account in the future. Two facts are to be pointed out.

#### Solution alone due to technology?

First of all, tour operators tend to expect solutions to the problem of climate change through technical development in the aircrafts themselves. This is understandable, but on the other hand risky, as it is well known that the air craft industry – unlike other industries - could not stop the ever growing impact of air traffic on global warming by technical development

#### Perception of the atmosfair emission calculator (%)



and won't be able to in future: existing elaborate technologies seem to have reached their limit, moreover the life circle of the airlines' fleets is too long. In spite of all the progress made during the last decades in terms of reduced emission of CO2 per flight kilometre the amount of emissions continues to grow fast – this is the crucial fact. Scientists have calculated the maximum amount/limit (of CO2) that the atmosphere could bear; beyond this limit the climate will totally collapse. Hardly any other industry is heading towards that limit as fast and as uncontrollably as the air traffic.

#### **Existing environmental awareness**

Even though not everybody is aware of the environmental problems the work of the Umweltorganisation shows/makes an impact: a survey of the Ministry for Environment shows that more than 80 % of the flight passengers know, that air traffic has a negative effect on the climate. This might not influence the behaviour at the moment but in future it is likely to do so in view of the growing number of reports about climate change in the media. The result of another survey by order of the German magazine Spiegel was that more than two third of all passengers would be willing to pay their contribution if they felt certain that the money really reached climate projects. If the tourism industry wants to offer an integer product without risks other solutions than only technical improvements need to be developed for the climate problems. Projects like atmosfair are designed for a long term basis and cannot be put into action over night.

#### Marketing with atmosfair

The second interesting question for the big tour operators is whether they can win some customers due atmosfair that would normally travel with another tour operator. A survey at the Airport Hannover showed that the first reaction to atmosfair is very affirmative: 95 % of the interviewees think positive of atmosfair from the first information (finden atmosfair gut). The most important thing was that atmosfair does not accuse anybody but offers a possibility to contribute to an anyway known problem. In this context the travellers also appreciate the pure information about the caused emission at their holidays. They would like to receive this kind of information a part of the service from their tour operator, travel agency and airline. This was the overall opinion across all social class. Due to the inclining attention regarding climate change within the population atmosfair has the potential to create an innovative unique selling proposition for the tour operators.

Also clear was the reaction to the question that one of the big tour operators came up with: "When I'm on holiday I prefer not to think about climate problems." Over 70 % of the respondents didn't agree with this question and nobody totally agreed. On the contrary: nearly 90 % stated that the protection of the environment is important in the holidays as well. In the future this need will be of even more importance for the tour operators as the evidences of the climate change will grow visibly.

#### **Holidays and Environment (%)**

I care about protecting the environment during my holidays as well



When I'm thinking of my holidays I prefer not to think about environmental problems



#### Future: go for innovation

Atmosfair task for the future will be to get more into the tourist mass-market. First achievements can be already announced: the co-operations with Frosch Sportreisen and Rhomberg which offer holidays for all kind of tourists. In addition atmosfair is in use at online travel agencies like Titanic.de or Traveltopia.de.

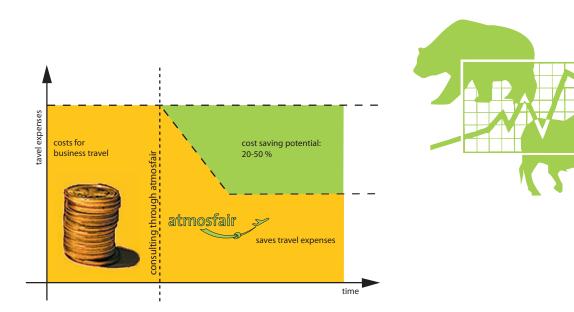
Climate protection projects can also be realised in tourist destinations. This opens the possibility for atmosfair to save emissions that are a directly related to the tourist activities.



	Distance	CO2 emission*	Price	
for a return flight per person**				
	up to km	kg	Euro	
1	3 000	700	14,00	
2	6 000	1 300	26,00	
3	8 000	1 700	34,00	
4	10 000	2 200	44,00	
5	15 000	3 600	72,00	
6	20 000	5 400	108,00	
7	30 000	8 400	168,00	
8	40 000	11 500	230,00	

\* climatic impact of CO<sub>2</sub> emissionen comparable with an airtravel \*\* based on flights to destinations that are situated in the middle of the zone

# **Business** Saving costs, protecting the climate



Business travel will experience drastic changes. While the supply of oil is declining each day, new technology for running aircrafts are still in the fledgling stages. Furthermore the oil consumption must be limited/restraint to only a small part of the deliverable oil in order to keep the global warming within reasonable limits. Atmosfair offers its services to companies and helps to develop solutions by consulting and practical support. There are many opportunities: saving costs, better use of the employers, communicate more efficient and with all this protecting the climate.

# Business Travel: The German Business Travel Association stands up for climate protection

At the spring conference of the Business Travel Association of Germany atmosfair's executive manager Dietrich Brockhagen discussed the impacts of the global warming for the business travel industry with 200 travel managers and other players within this branch. Companies that search for solutions to be independent from transportation with fossil fuel will be more competitive in the next decade of shortage of fuel and climate policy. One possibility in order to use employers more effective save costs and emission is to travel less and substitute the business travel with modern means of technology as far as possible. Barriers can be found in systematic incentives and missing rules within and outside the company, for example in the travel policies. To allocate those problems and to reduce the barriers step by step is challenging and may also be painful in many cases.

The big response of the participants and the specialised press shows that the companies are aware of the topic and its relevance for the future. This does not mean that all companies make a big effort to change the situation as the business trip also is about corporate culture and a very personal part of the employees. In-depth changes only can be made when the employees are involved in the project and the planning. So it is a real challenge for innovative managers.



#### Survey shows potential to optimise

At an internal survey made by atmosfair among nearly 100 German medium-sized and big companies around two third of the respondents stated that their company already uses video- or web-conferencing to substitute business travels. But many could not specify what kind of business travel or projects are substituted. Only one third of the interviewed companies have travel policies that include this topic. Especially the medium-sized companies seem to need more information.

#### Support the change

The electronic company Electrolux wants to use synergy potential that also helps the climate. It is planned to implement the emission calculator in the business travel software to inform the employees about the environmental impacts of their business trip. This is to incentivise the employees to use more webconferences. Atmosfair presented the concept to the management in Stockholm and consults them during the realisation. Also for the German insurance company Münchner Rück emissions were calculated and atmosfair now helps the company to develop a climate protection concept. Other companies like the office equipment company Memo are using atmosfair to save emissions from inevitable flights of their staff.

#### Demand for the tool to optimise costs

On its website atmosfair provides a tool which allows companies to calculate which means of transportation or communication is the most economic one for different occasions and destinations. This tool was already downloaded many times. Each company can adjust the tool to its own requirements: time for work within the transportation mean, salary, costs of the tickets and alternative communication possibilities. The programme calculates the time for travelling and if possible the costs as well. The opportunity cost that result from the lost working time while sitting in the plane are in many cases not included in the cost analysis by the companies. But these costs may have a crucial impact on the best choice. In most of the cases that also helps the climate: no other opportunity offers a better travelling time to working time ratio than the videoconference.



atmosfair speech at the annual meeting of the VDR with the intention to initiate new view in the business travel world

#### Improving the emission calculator

The atmosfair emission calculator is up to date with all modells of jets, turboprops and business jets till 2002. The calculator was checked in detail by the Ministry of Environment. Due to the possibility of the differentiation between various types of airplanes and kind of service it is also used by enterprises of the aviation industry in order to verify and document their emission balance.

#### Travel agency partner DER

An important new partner is the DER-Business Travel Agency. It is the second biggest travel agency chain in Germany regarding business travel. Their plan is to add the atmosfair emission calculator as analysis tool to the management information system. This would allow all clients of DER to get a detailed balance of their emission for business travels without putting in/entering extra data.

# Electrolux





# About us

### **Patrons**



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



Climatologist, Leibniz–Institut for marine ecosystems, University of Kiel



Prof. Dr. Hartmut Graßl

Former Director of the Max-Planck–Instituts for Meteorology in Hamburg

#### Team







Inga Haller



# Management



Dr. Dietrich Brockhagen

Physicist

# **Advisory** board



Nicole Wilke Head of division KI II 1 in the german federal environmental ministry, Interntaional Kyoto process



Director of the North-South NGO Germanwatch, Expert in national and international climate policy.



Franzjosef Schafhausen Head of division KI I 1 in the german federal environmental ministry, national climate policy.



Chairman of the German Foundation Zukunftsfähigkeit. Former CEO of an medium-sized company.

#### About atmosfair

atmosfair provides offsetting of air travel emissions to the public and private / civil sector on an established best practice basis. atmosfair is a German non-profit Limited (gGmbH), founded in April 2005, taking over the business of the previous atmosfair initiative. The atmosfair initiative was started in June 2004 jointly by the two partners Germanwatch and forum anders reisen. Germanwatch is a NGO, active in the field of climate change, having a strong record on aviation in the national and international relevant bodies and processes (i. a. CAN, UNFCCC and IPCC). The forum anders reisen is the association of sustainable tour operators in Germany, with over 100 small to medium sized members. In the beginning, the initiative was supported by a research project by the

# **Our partners**

# **Business**



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NGOs and public sector











Deutscher Evangelischer Kirchentag





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When I fly- it has to be atmosfair

Atmosfair is a non-profit organisation for climate protection within the air trafic. Air passengers make a voluntary contribution for the greenhouse gas emissions caused by their flights. The funds are invested in e. g. solar, hydropower, biomass, or energy-efficiency projects and thereby contributing to offset greenhouse gas emissions by the same amount that would be comparable to the aircraft's emissions.

www.atmosfair.de



Klaus Töpfer, patron of atmosfair