

# Linking Holiday Locations with Carbon Offset Projects

## Results of a survey of tourists at Frankfurt Airport (FRA) / Germany

Benno Rothstein, Timo Wernsdörfer

### Background

- CO<sub>2</sub> compensation measures, in particular the compensation of flights, are becoming more and more popular. **Carbon offsetting** is defined as measures financed by donations that save greenhouse gases previously emitted elsewhere through climate protection projects [1].
- CO<sub>2</sub> abatement costs are often low in developing countries [2]. This is why most offset projects are implemented there. Nevertheless, this does not mean that the holiday resort and the project country are in any way related to each other.
- By **linking carbon offset projects with the destination country**, the tourist is able to get an impression of the co-financed project. In case such projects are realized in cooperation with the hotel, the hotel operator obtains a new tourist attraction and can demonstrate its efforts to climate protection in a PR-effective way.

### Methodology of the Investigation

- On this basis, a **questionnaire** was created that was as clear as possible. With the help of closed-ended questions (which can be answered by a simple "yes" or "no") the answer possibilities could be clearly distinguished from each other. This enabled a clear interpretation.
- The **aim** of this **survey** was to find out
  - (1) whether the polled tourist has heard of the possibility of offsetting his flight carbon emissions,
  - (2) if he/she offset his/her flight,
  - (3) if he/she would prefer that the amount of compensation supports a project in the holiday country and if he/she was willing to visit the project.
 In addition, the gender, nationality and age of the respondents were determined.
- Due to starting holidays the date of the survey was set to Saturday, June, 8<sup>th</sup> 2019. A high number of travellers, especially holidaymakers, was expected at this time. In order to ensure a representative survey, no target group was defined and 100 random travellers were interviewed. An attempt was made to survey different age groups in equal parts. However, due to the start of the holiday season, the majority of the interviewees were middle-aged family travellers.

### Objective of the Investigation

- The objective of the investigation is to find out whether an **increase in the voluntary offset payments** of tourists can be achieved
  - if they flow directly into climate protection projects of their **travel destination** and
  - if there is an opportunity to **visit the co-financed projects**.

### Results

- A total of **100 participants** from eight different nations were interviewed. With a share of 87%, German air travellers represent by far the largest proportion of respondents. Participants from the USA followed with 5%, Turkey and England with a share of 2%. The countries India, the Netherlands, Austria and Vietnam each recorded a participation rate of 1%.

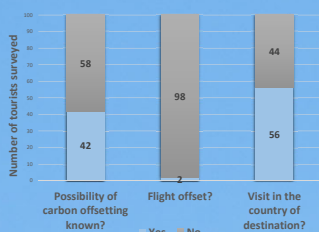


Fig 1: General results after evaluation of questions 1, 2 & 3 of the survey at Frankfurt Airport of June, 8<sup>th</sup> 2019 (own diagram)

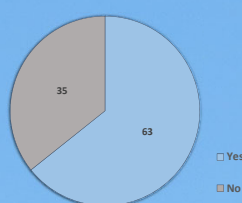


Fig 2: Number of responses from participants who would offset if the offset amount supported a climate project in the destination country (own diagram)

- A majority of travellers have never heard of the possibility of CO<sub>2</sub> offsetting a flight.
- Only **2% offset the flight**.
- However, there was an increased **willingness to visit the project**.

- A large **proportion** of the interviewees would **offset** in the future, if thereby a **project in the travel country** is **supported**.

Table 1: List of the most frequent comments and conditions by participants at Frankfurt Airport (own presentation)

Rank	Number of mentions	Comment
1	15	Transparency of the carbon offset provider
2	13	Spatial proximity to the project
3	7	Destination country
4	6	Amount of offset payment Preference for the implementation of offset projects to remain in developing countries
5	5	Time as a factor of a visit Project type
6	4	Support yes, but no decisive reason to offset

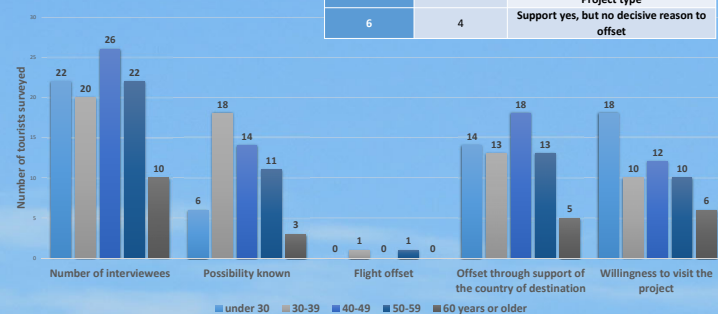


Fig 3: Number of answers given according to age group (own diagram)

- The possibility of CO<sub>2</sub> compensation was best known among people aged 30 to 39. One person each in the age group 30-39 years and 50-59 years arranged the carbon offset. The age group of 50 to 59-year-olds showed the greatest willingness to offset.
- The **under-30s** showed the greatest **willingness to visit carbon offset projects**.

### Conclusions

- The **proportion** of travelers surveyed who offset is still very **low** at 2%. This result is largely in line with other studies, e.g. from 2012 (compensation of <1% of flights starting or ending in Germany) [3], 2015 [1] and 2018 [4].
- The **willingness to carbon offset** could be significantly **increased** by **linking the offset projects with the tourist destinations**.

- Preconditions for an increased willingness to offset include the **transparency** of the carbon offset provider and the providing of **suitable information** for air passengers.
- There is an obvious willingness to visit a co-financed project if the **distance** between the offset project and the hotel is **not too long**.
- This could be an **opportunity for hotel operators** to create a new tourist attraction through carbon offset projects.

### References

- [1] UBA (UMWELTBUNDESAMT) (Ed.) (2015): *Aktualisierte Analyse des deutschen Marktes zur freiwilligen Kompensation von Treibhausgasemissionen*. Dessau-Roßlau.
- [2] DEUTSCHE EMISSIONSHANDELSSTELLE (DEHST) (2008): *Leitfaden zur freiwilligen Kompensation von Treibhäusern*. Berlin.
- [3] TAZ (DIE TAGESZEITUNG) (2012): *Der klimaneutrale Bluff. Interview mit Dietrich Brochhagen von atmosfair*. URL: <https://taz.de/1510222/> (October, 15<sup>th</sup> 2019).
- [4] BMU & UBA (BUNDESMINISTERIUM FÜR UMWELT, NATURSCHUTZ UND NUKLEARE SICHERHEIT; UMWELTBUNDESAMT) (Eds.) (2019): *Umweltbewusstsein in Deutschland 2018. Ergebnisse einer repräsentativen Bevölkerungsumfrage*. Berlin, Dessau-Roßlau.

### Contact

Prof. Dr. rer. nat. habil. Benno Rothstein  
Natural Resource Management

Email: [rothstein@htwg-konstanz.de](mailto:rothstein@htwg-konstanz.de)

Konstanz University of Applied Sciences (HTWG)  
Department of Civil Engineering  
Alfred-Wachtel-Str. 8  
78462 Konstanz  
Germany