Is tourism on Gotland threatened by wind turbines?

An impact study

Vendula Braunová

11 September 2013
Biographical Sketch

Vendula Braunová

Recent Experience

• Accenture Technical Client Support
  \(\text{(Prague – 16 months)}\)
• Language services \(\text{(4 years)}\)

Academic Background

• Master of Arts (MA), English linguistics
  \(\text{Charles University Prague, Czech Republic}\)
• Bachelor of Arts (BA), Russian and English for business
  \(\text{University of Pilsen, Czech Republic}\)
• Foreign exchange year \(\text{University of Queensland, Australia}\)

Current status

• MSc. student at Uppsala University
  \(\text{Wind Power Project Management}\)
Topic agenda

The process of finding answers

1. The importance of tourism to Gotlandic people and economy
2. Deciding what is fact and what is fiction
3. Fair, balanced, non-biased investigation and due process
4. Findings and key lessons learned
5. Extracting meaning for Gotland and beyond
6. Community involvement and the future
Wind power and tourism

*How do wind turbines impact tourism on Gotland?*

*Tourism*

\[ \text{Tourism} = \text{jobs for locals} + \text{wealth creation} + \text{investment} \]

*Wind power*

\[ \text{Wind power} = \text{jobs for locals} + \text{wealth creation} + \text{investment} - \text{loss of tourism?} \]

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**Benefits of wind power?**

**Loss of tourism?**

**An answer we deserve to know!**
Deciding what is fact and what is fiction

*How do wind turbines impact tourism on Gotland?*

1. **What do we want to know?**
2. **What information is needed?**
3. **Are there similar studies in the world?**
   - Scotland, 2002
   - Wales, 2003
   - Australia, 2004
   - Denmark, 2004
   - Quebec, 2004
   - Sweden, 2009
   - Czech Republic, 2010
   - France, 2012
4. **What do they have to say?**

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**How tourists perceive visual features associated with wind turbines**

**Whether tourists plan to return to Gotland despite having noticed wind turbines**

**Whether wind farms can become an attraction**
Literature review

1. Tourist Attitudes towards Wind Farms (2002), Scotland
2. Investigation Into the Potential Impact Of Wind Farms On Tourism In Wales (2003), Wales
3. Wind Farms and Tourism (2004), Australia
4. Study Of Marketing To Tourists Visiting Gaspé to Identify Tourist Attitudes To Wind Installations (2004), Quebec
5. Wind Farms and Tourism (2004), Denmark
6. Wind Power and Tourism in Jämtland (2009), Sweden
7. Wind Turbines in Tourism Landscapes. Czech Experience (2010), Czech Republic
8. The case for offshore wind farms, artificial reefs and sustainable tourism in the French Mediterranean (2012), France
## Literature review

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Authors</th>
<th>Methodology</th>
<th>Findings</th>
<th>Limitations/Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Scotland: Argyll</td>
<td>MORI Scotland</td>
<td>307 tourists interviewed face-to-face in five locations.</td>
<td>Wind farms are not seen as having a detrimental effect on tourists' visit and would not deter tourists from visiting the area in the future.</td>
<td>Sample size could be questioned.</td>
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<tr>
<td>2003</td>
<td>Wales</td>
<td>NFO World Group for VisitWales</td>
<td>8 Hall Tests were undertaken with 266 visitors to Wales during August 2003.</td>
<td>68% of respondents stated that it would not make any difference to visit the Wales countryside if the number of wind farms increased, while 11% said they would not return again.</td>
<td>Hall Tests could be questioned.</td>
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<tr>
<td>2004</td>
<td>Australia</td>
<td>AusWEA</td>
<td>N/A</td>
<td>Wind farm visitor centres are a popular tourist attraction in the landscape.</td>
<td>Official research has not been carried out.</td>
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</tr>
<tr>
<td>2004</td>
<td>Denmark</td>
<td>AusWEA</td>
<td>N/A</td>
<td>Wind farms are not perceived as a problem for tourism in Denmark.</td>
<td>No systematic studies on the impact of tourism and wind farms.</td>
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<tr>
<td>2004</td>
<td>Quebec</td>
<td>Richard Guay Marketing</td>
<td>599 questionnaires were completed in four locations in Quebec.</td>
<td>New wind installations in Gaspésie will not have negative impact on tourism provided that the wind turbines are deployed with respect to the traditional Gaspé landscape and popular natural attractions.</td>
<td>Unsure about the number of respondents in the area of the wind farm.</td>
</tr>
</tbody>
</table>
# Literature review

## Studies with evidence of impact of wind power on tourism: comprehensive review

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Authors</th>
<th>Methodology</th>
<th>Findings</th>
<th>Limitations/Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Sweden</td>
<td>Boden</td>
<td>Scientific literature, interviews and discussions with local representatives of both tourism and wind power.</td>
<td>A wind farm can induce improved infrastructure which can have positive effects on the local tourism.</td>
<td>Unsure about the number of respondents in the area of the wind farm.</td>
</tr>
<tr>
<td>2010</td>
<td>Czech Republic</td>
<td>Frantal and Kunc</td>
<td>Standardized questionnaire survey of tourists together with semi-structured interviews with representatives of local business subjects from the sphere of tourism. 229 respondents surveyed in total.</td>
<td>The survey findings indicate that construction of WT in suitably selected locations may have only a minor or negligible negative impact on tourists' perception and experience of landscape, and their destination choice.</td>
<td>The survey cannot be regarded as representing the general public opinion but as a case-study.</td>
</tr>
<tr>
<td>2012</td>
<td>France</td>
<td>Westerberg et al.</td>
<td>370 respondents interviewed by a questionnaire.</td>
<td>Some visual nuisance associated with wind farms, the degree decreases when tourists are: younger or mature, of Northern European origin, frequent visitors to the Languedoc Roussillon, and when their vacation is motivated by visiting friends and family or enjoying cultural and historical experiences, aside from ‘sun and sand’ tourism.</td>
<td>Guiding the respondent through the survey.</td>
</tr>
</tbody>
</table>
Bias and due process

Finding answers that can be trusted

1. Questionnaire
2. Population of tourists
3. Sample size
4. Randomness
5. Leading questions
6. Interpretation bias
7. Pilot study
8. Fine-tuning → data coll

Source: Region Gotland, 2012
Bias and due process
Finding answers that can be trusted
The Questionnaire

Far from simple

WIND POWER AND TOURISM QUESTIONNAIRE

For outbound tourists only.
Note: You may quit the questionnaire anytime you wish.

Did you know that there are around 150 wind turbines on Gotland? Although it is less than 3% of all wind farms installed in Sweden, the energy generated by wind turbines covers almost 40% of Gotland’s electrical energy demand. In this questionnaire, The University’s Wind Energy Department surveys how you, as a tourist, perceive wind farms. Thank you!

View our survey results 9 September 2013 by accessing the following link:

http://www.hgo.se/tourism
The Questionnaire

Far from simple

Q 1. Please indicate how many times you have visited Gotland since 2008.

1  2  3  4  5  > 5

Q 2. What was the main reason for having visited Gotland?
☐ Nature        ☐ Business/ Conference
☐ Culture & History ☐ Other, please specify
☐ Seaside & Weather
☐ Family & Friends

Q 3. Please indicate how long you stayed on Gotland.
☐ Day trip only    ☐ 4 - 7 days
☐ 1 - 3 days      ☐ 7 days +

Q 4. Please indicate what type of accommodation you used during your stay on Gotland.
☐ Hotel/ Hostel/ Guest house
☐ Summer house/ Cabin
☐ Camping
☐ Other, please specify

Q 5. Did you see any wind turbines during your stay on Gotland?
☐ Yes         ☐ No         ☐ Unsure

Q 6. My impression of seeing wind turbines on Gotland may be described as

NEGATIVE  NEUTRAL  POSITIVE  NOT APPLICABLE

□  □  □  □
The Questionnaire

Far from simple

Q 7. Please select the answer that most closely reflects your views.

My attitude to wind turbines before this visit to Gotland could be described as

- Negative
- Neutral
- Positive

My attitude to wind turbines after this visit to Gotland could be described as

- Negative
- Neutral
- Positive

The presence of wind turbines on Gotland will have the following impact on my decision to return.

- Negative
- No impact
- Positive
- Unsure

I would be interested in visiting a wind farm on Gotland as a tourist attraction.

- Yes
- Maybe
- No

Q 8. Please indicate which categories describe you best.

Gender
- Male
- Female

Age
- under 18
- 19 - 30
- 31 - 55
- over 55

Country you most identify with

- Sweden
- Denmark
- Germany

Other, please specify

........................................
Challenges encountered

*Transparency matters*

1. Pros and Cons of questionnaire
2. Delimitations of the research
3. Who is a tourist?
4. Summer house owners
5. Tourists with/without cars
6. Equal gender and age distribution
7. Researcher bias
Findings and key lessons learned

Raw data results from questionnaire

Number of visits to Gotland

Purpose of visit
- Day trip only
- 1 to 3 days
- 4 - 7 days
- >7 days
- Not stated

Total respondents: 328

Number of respondents

Length of stay
- Camping
- Hotel/hostel
- Guest house
- Multiple
- Summer house/cabin
- Not stated

Total respondents: 130

Accommodation type

Number of respondents

Number of respondents

Business conference
- Leisure
- Family/friends/guest house
- Multiple
- Nature
- Other
- Seaside & weather
- Not stated

Total respondents: 130
Findings and key lessons learned

Raw data results from questionnaire

<table>
<thead>
<tr>
<th>Country</th>
<th>Denmark</th>
<th>Finland</th>
<th>Germany</th>
<th>Norway</th>
<th>n/s</th>
<th>Other</th>
<th>Sweden</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>under 18</td>
<td>19 - 30</td>
<td>31 - 55</td>
<td>over 55</td>
<td>n/s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of respondents</td>
<td>12</td>
<td>67</td>
<td>432</td>
<td>212</td>
<td>12</td>
<td></td>
<td>646</td>
<td></td>
</tr>
</tbody>
</table>

Gender: f (female), m (male), n/s (not specified)
Findings and key lessons learned

Raw data results from questionnaire

Did you see any wind turbines?

- Yes: 55%
- No: 31%
- Unsure: 2%
- Negative: 7%
- Neutral: 6%
- N/A: 1%

Impression of wind turbines:

- Positive: 15%
- Neutral: 49%
- Negative: 13%
- Unsure: 9%
- N/A: 8%

n/a: not available
Findings and key lessons learned

Raw data results from questionnaire

Impact on return

Interest in visiting a wind farm after visit

Attitude before visit

Attitude after visit

- n/s
- negative
- maybe
- no impact
- unsure
- yes
- neutral
- positive

<table>
<thead>
<tr>
<th>Interest in visiting</th>
<th>Attitude before visit</th>
<th>Attitude after visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>44%</td>
<td>32%</td>
</tr>
<tr>
<td>no</td>
<td>24%</td>
<td>1%</td>
</tr>
<tr>
<td>maybe</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>n/s</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>negative</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Impact:

- no impact
- unsure
- positive
- neutral
- negative
- yes
- maybe
- n/s
<table>
<thead>
<tr>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subvention till vindkraft? Hur mycket?</strong></td>
</tr>
<tr>
<td>Positiv till vindkraft om den finns på avstånd från bebyggelse.</td>
</tr>
<tr>
<td>Jag hoppas att det blir fler vindkraftverk på Gotland &amp; i hela Sverige i framtiden.</td>
</tr>
<tr>
<td>Ljudet från vindkraftverk är negativt.</td>
</tr>
<tr>
<td>Antalet vindkraftverken på Näsudden gjorde mig negativt inställt till så många snurror på ett och samma ställe. Man vänder bort blickar och åker någon annanstans. Tacksamhet för att slippa snurrorna på Fårö. De få snurrorna i Lickershamn var helt OK!</td>
</tr>
<tr>
<td>Jag tycker de är vackra!! Låt konstnärer dekorera dom!!!</td>
</tr>
<tr>
<td>Placeras i hamnar och andra platser där det redan finns industri-inriktade byggnader t.ex. Klintehamn.</td>
</tr>
<tr>
<td>We have many wind turbines in the north of Germany! Enercon! Our home town will be called 'Enercon City' in the future!</td>
</tr>
<tr>
<td>De står stilla oförklärligt ibland.</td>
</tr>
<tr>
<td>Hittegodsavdelningen borde ha öppet dagtid.</td>
</tr>
<tr>
<td>More free showers on the beach please.</td>
</tr>
<tr>
<td>Har sett vindkraftverk förut, men aldrig nära min semesterort. Skulle de förekomma nära min semestervistelse, skulle jag byta ort/ställe vid nästa tillfälle.</td>
</tr>
</tbody>
</table>
Results broken down to respondents who have seen wind turbines on Gotland

Interest in visiting a wind farm

- Yes maybe: 25%
- Yes no: 31%
- Yes yes: 43%
- Yes n/s: 1%
What does this mean for Gotlanders?

What does this mean for communities beyond?

**Wind power**

\[= \text{jobs for locals} + \text{wealth creation} + \text{investment} \]

\[-\text{loss of tourism?}\]

An answer we now know!

Wind power does NOT affect tourism on Gotland
Community involvement and the future

Acceptance grows with both time and effort

1. Importance of taking a professional, neutral, non-biased role to answer legitimate community concerns.
2. Importance of taking community concerns seriously.
3. Importance of community, and industry playing a greater role to inform the public and grow acceptance and awareness of the wind industry from an early age.
Thank you for your attention!
Additional material

King Island Wind Farm Debate

Southern hemisphere's largest wind farm hinges on King Island community support

The development of what would be the southern hemisphere's largest wind farm hinges on a survey in the small Tasmanian community of King Island.

Residents and land-owners will vote yes or no to the proposal to build the 200-turbine wind farm, which would play a huge role in helping Australia meet its renewable energies targets.

Hydro Tasmania says the farm will bring hundreds of millions of dollars into the local community, as well as infrastructure upgrades and at least 60 jobs.
Additional results broken down

First-time comers: impact on decision to return

- 73% had a positive impact
- 22% had a no impact
- 4% had a negative impact
- 1% had a negative impact
- 1% were unsure
### Impression of wind turbines: gender

<table>
<thead>
<tr>
<th></th>
<th>n/a</th>
<th>negative</th>
<th>neutral</th>
<th>positive</th>
<th>n/a</th>
<th>negative</th>
<th>neutral</th>
<th>positive</th>
<th>n/a</th>
<th>negative</th>
<th>neutral</th>
<th>positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>23</td>
<td>15</td>
<td>100</td>
<td>156</td>
<td>22</td>
<td>4</td>
<td>32</td>
<td>119</td>
<td>228</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>15</td>
<td>100</td>
<td>156</td>
<td>22</td>
<td>4</td>
<td>32</td>
<td>119</td>
<td>228</td>
<td>2</td>
<td>3</td>
<td>10</td>
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</table>
Additional results broken down

**Impression of wind turbines: age**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Negative</th>
<th>Neutral</th>
<th>Positive</th>
<th>N/A</th>
<th>N/S</th>
<th>Negative</th>
<th>Neutral</th>
<th>Positive</th>
<th>N/A</th>
<th>N/S</th>
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<th>N/S</th>
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<th>Neutral</th>
<th>Positive</th>
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<tbody>
<tr>
<td>under 18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
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<td>0</td>
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<td>19 - 30</td>
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<td>0</td>
<td>0</td>
<td>21</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
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<tr>
<td>31 - 55</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>35</td>
<td>2</td>
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<td>56+</td>
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<td>136</td>
<td>238</td>
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<td>12</td>
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<td>Total</td>
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<td>7</td>
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<td>1</td>
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</tbody>
</table>

Number of respondents
Additional results broken down

**Prevailing features of the negative group**
- First-time comers
- Visiting family & friends, multiple purpose
- 4 – 7 days
- Summer houses
- 64% men, 30% women
- Age: 31-55 (60%)
- 94% Swedish
- Usually come with negative attitude to wind turbines already

**Prevailing features of the positive group**
- First-time comers
- Visiting family & friends, multiple purpose
- 4 – 7 days
- Summer houses/other
- 56% men, 39% women
- Age: 31-55 (59%)
- Swedish
- Usually come with either positive or neutral attitude and leave with positive
References


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