

Report of the Workshop:

“How dynamic is Belgium’s coastal tourism in times of climate change?”

14 October 2010, Blankenberge

WP 3.3

Organized by the Maritime Institute,

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and

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How dynamic is Belgium's coastal tourism in times of climate change?

Workshop 14 October 2010

1. Background and context

This workshop took place under the CLIMAR and IMCORE project.

CLIMAR stands for "Evaluation of climate change impacts and adaptation responses for marine activities" and brings together five research teams (Management Unit of the North Sea Mathematical Models, Arcadis Ecolas, Flanders Hydraulics Research, ILVO-Fisheries and Maritime Institute). The main objective is the elaboration of an evaluation framework for adaptation measures/strategies as a response to climate induced ecological, social and economic impacts, and this for the total North Sea environment. The CLIMAR-project is funded by the research program "Science for sustainable development" of the Belgian Federal Science Policy (BELSPO).

IMCORE stands for "Innovative Management for Europe's Changing Coastal Resource". The main objective of IMCORE is to promote a transnational, innovative and sustainable approach to reduce the ecological, social and economic impacts of climate change on coastal resources of North West Europe. IMCORE is a unique partnership, where expert couplets of researchers and policy-makers test innovative ways to address coastal climate change to see what works best. This approach has been adopted to enable stakeholders to think more creatively about the future, encouraging more proactive attitudes to adaptation as well as enhancing appreciation of the interconnectivity of processes and stakeholders operating at different scales. IMCORE is a European INTRREG IVB NW Europe project.

Within the CLIMAR project climate change scenarios for the Belgian coast are developed based on scientific information. These scenarios are used to assess the ecological, social and economic impacts on three important Belgian coastal sectors, namely fisheries, tourism and coastal defence. All these scientific information forms the basis for the elaboration of an evaluation framework for adaptation measures and strategies. In December 2009 two workshops were held to raise awareness to climate change and discuss possible adaptation measures, one related to coastal defence and one to fisheries. Both workshops initiated with presentations on the possible effects of climate change at the Belgian coast and how this might affect the sectors involved, followed by a discussion on possible adaptation responses. Given that such a workshop was never been held for the tourist sector it was deemed to be useful to hold such kind of workshop for the tourist sector as well. It is in this light that this workshop has been organized.

Within the IMCORE project one of the goals is to elaborate a sustainable approach for the development of adaptation strategies. In order to elaborate such adaptation strategies a methodology has been developed across different Work Packages, which is tested stage by stage by the different expert couplets and will lead to 9 adaptation strategies, one per expert couplet. Results are compared and lessons are learned. The first step in the elaboration of an adaptation strategy was the identification of climate change issues (Work Package 2.3). This action assesses which climate change impacts affect Belgian coastal sectors. The assessment makes use of stakeholder participation and scientific literature. (see Annex 1 for the report of this workshop). The second step is the development of socio-economic scenarios, and forward looking on how the future might unfold through an exploratory scenarios workshop (Work Package 3.3). It is in this light that the respective workshop is organized. The last phase is the formulation of an adaptation strategy (Work Package 4.3). The results of the IMCORE project will be presented at an International Workshop in September 2011.

The nine expert couplets of IMCORE are:

- Maritieme Dienstverlening en Kust (MDK) – Coastal division & Maritime Institute (MI), University of Ghent (Belgium)
- Cork County Council & Coastal and Marine Resource Centre, University College Cork (Ireland)
- Donegal County Council & Centre of Coastal and Marine Research, University of Ulster (Northern Ireland)
- Severn Estuary Partnership & Marine and Coastal Research Group, Cardiff University (Wales)
- Aberdeen City Council & Aberdeen Institute for Coastal Science and Management University Aberdeen (Scotland)
- SIAGM - Intermunicipal Syndicate for Planning in the Gulf of Morbihan & Centre for Maritime Law and economy University of Western Brittany (Brittany)
- Durham Council & Envision, Newcastle University (UK)
- Sefton Council & Edgehill University (UK)
- Government Office (East of England), Colne Estuary Partnership & CoastNet (Essex) (UK)

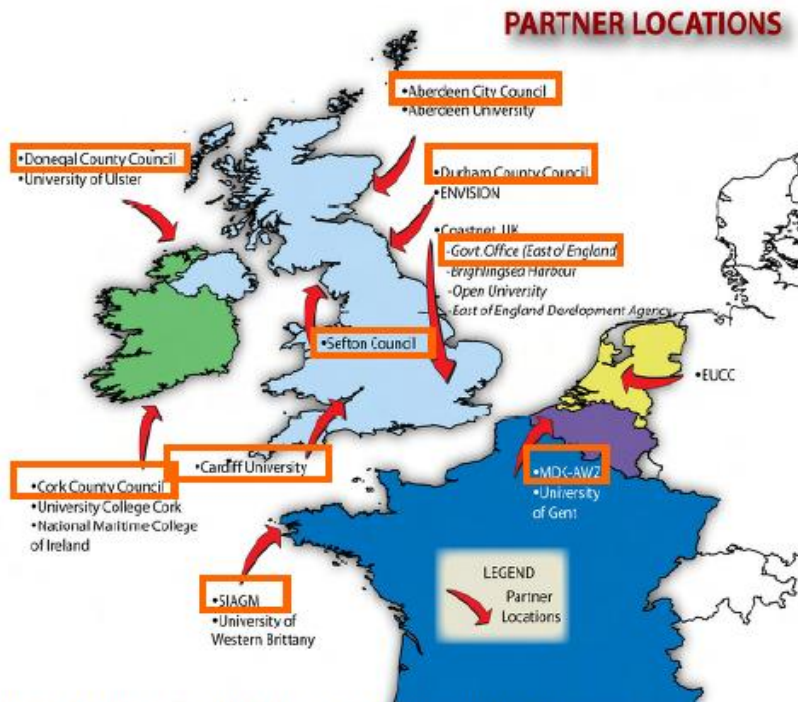


Figure 1. Locations of each of the nine IMCORE expert couplet areas.

2. Purpose of the workshop

The purpose of the workshop was many folded. First, to inform the coastal stakeholders and especially the tourist sector on the effects of climate change in general and the impacts this will have on the tourist sector. Second, to gather information based on stakeholder participation. On the one hand concerning their vision on CLIMAR indicators for coastal tourism and possible adaptation responses, on the other hand concerning their vision on how the coastal socio-economic future might unfold in order to establish socio-economic scenarios.

The choice to focus on the tourist sector is driven by the fact that tourism is obviously linked to climate change, both in a positive and negative way. Still it is surprising that tourism literature pays little attention to climate and climatic change. Therefore it was considered useful to hold a workshop that would make the tourism stakeholders more aware of the effects of climate change on their sector and discuss how the tourist sector will evolve in the light of climate change.

This workshop is part of a series of workshops on future scenario building in the context of Integrated Coastal Zone Management and climate change adaptation in the IMCORE study sites. The results will be collated and analysed in order to provide a regional comparison.

3. Audience

The intention was to have all main coastal and marine sectors represented in the workshop. 120 invitations were sent a month before the workshop took place (see Annex 2 for the invitation). However, not all sectors were represented, probably due to an overload of workshops on coastal zone related matters during that period. Best represented was the invited research community. None of the 10 local municipalities were represented. Despite the efforts of the organizing committee towards the tourist sector (39 personal invitations), only 4 people were present. According to other initiatives (conferences, info sessions, etc.), this low attendance of the tourist sector seems to be a general trend. (cf. table).

Sector	Invited	Present
<i>Local authorities</i>	10 coastal municipalities	0
<i>Federal government</i>	4	1
<i>Province West Flanders</i>	5	1
<i>Flemish government</i>	17	9
<i>Tourism</i>	39	4
<i>Ports/Shipping</i>	3	0
<i>Fisheries</i>	4	0
<i>Dredging</i>	7	4
<i>Nature conservation</i>	9	0
<i>Energy</i>	6	0
<i>Sand and gravel extraction</i>	1	0
<i>Researchers working on climate change and the Belgian Coast</i>	15	11
<i>Others</i>		2
Total	120	32

The above table shows that the results of this workshop have to be read with caution. Firstly, not all sectors were present at the workshop. Secondly, the number of people representing the sector was limited (see Annex 3 for the list of participants).

4. Location and timing

The workshop took place in Blankenberge, Beach Palace Hotel - Zeedijk 77-79. This location is chosen since it is located at the Belgian coast, the study area of the workshop and the working area of most stakeholder. The first part of the workshop was held in a theatre-style seating, the second part in a round table. The language was Dutch.

5. Resources

Two questionnaires were distributed during the morning session of the workshop, to sound the present stakeholders out about the degree of certainty and importance (by giving a score) regarding threatened values and possible adaptation approaches within the tourist sector (see Annex 4) on the one hand and on possible drivers of change in the Belgian coastal zone related to climate change adaptation (see Annex 5) on the other hand.

6. Structure

10.00: Introduction Miguel Berteloot (MI)

The IMCORE and CLIMAR projects were explained. CLIMAR is a Belgian research project (4 year) funded by Belgian Science Policy with focus on adaptation of the coastal area and sea activities to climate change impacts. IMCORE is a 4 year project funded by the EU in the INTERREG IVB NW Europe program. Various sectors are involved e.g. universities, researchers, local authorities. The Maritime Institute of the Ghent University and MDK are the Belgian Expert Couplet.

10.10: Presentation “Strategic Policy Plan for tourism at the coast 2009-2014” by Magda Monballyu (Westtoer)

The different aspects of the Strategic Policy Plan for tourism at the coast 2009-2014 (Policy Plan) have been presented in detail. Since this Policy Plan only has a short term vision, the effects of climate change are not specifically included as the tourist sector assumes that these impacts will only be visible from 2020 onwards. Regarding climate change adaptation, the Policy Plan highlighted the importance of the perception on the coast in general and its panorama. Consequently, to her opinion coastal adaptation defence structures should safeguard this coastal view and the interconnection between the local beaches of the Belgium coast. She concluded by raising the possible advantages of future impacts of climate change for the Belgian coastal tourist sector. The raise of temperature will create an earlier start of the summer season and a later ending. This will create a commercial potential as it will attract more tourists. Nevertheless there should be enough infrastructure to receive an increased amount of tourists. The Power Point presentation can be found in Annex 6.

10.40: Presentation “Climate (change) and tourism” by Bas Amelung (Wageningen University)

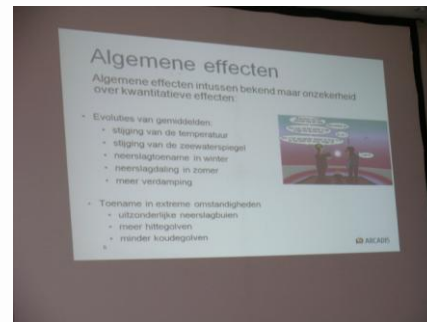


The relationship between climate (change) and tourism were expounded. Criteria to assess the attractiveness of climate for tourism were clarified into more detail. Furthermore an exposition was given of the economical effects of climate change on the tourist sector in Europe as well as a framework for tourism and adaptation, assessed by the PESETA-Project. The Power Point presentation can be found in Annex 7.

Picture: Presentation Bas Amelung.

11.10: Presentation “adaptation measures for coastal tourism” by Annemie Volckaert (Arcadis)

The CLIMAR project with a focus on the tourist sector was presented. One of the objectives of CLIMAR is to highlight the potential negative impacts and opportunities of climate change for the tourist sector. Besides an adaptation strategy will be developed for coastal tourism to tackle these impacts in the best way. The presentation was meant as an introduction to the active work session taking place in the afternoon in which the opinions of the participants on these issues will be further discussed. As a starting point for this discussion the attendants filled in a questionnaire on these topics at the end of the presentation sessions. The Power Point presentation can be found in Annex 8.



Pictures: Presentation Annemie Volckaert.

12.00: Presentation “socio-economic changes” by Marian Willekens (MI)

The IMCORE project was elaborated. The main goal of the project, namely the development of an innovative approach to establish adaptation strategies for the different project regions has been clarified as well as the various stages of the project. The approach and the purpose of the workshop were expounded namely establishing future socio-economic visions of the Belgian coast in general, with focus on tourism, using the exploratory scenario building process. This thinking process was initiated by means of a questionnaire which examined the vision of

stakeholders towards socio-economic factors in case of climate change adaptation, also known as drivers of change. The questionnaire was briefly elucidated, after which the attendants were given some time to fill in this questionnaire, together with the questionnaire on adaptation measures for coastal tourism.

The Power Point presentation can be found in Annex 9.

12.30: lunch

At lunch time the results of both questionnaires were processed, using Excel which positioned the drivers of change (both climate as well as socio-economic change) mentioned in the questionnaire on axes (certainty and importance). The data was also visualised in charts and graphs (See Annex 10 for the graphs on adaptation measures and CLIMAR indicators and Annex 11 for the Graphs on socio-economic drivers of change).

13.40: Interactive workshop session 1 facilitated by Annemie Volckaert (Arcadis) and Renaat de Sutter (Ghent University – IMDC)

The results of the questionnaire on adaptation were graphically visualized (Annex 10). This included the probability and importance of the tourist values (CLIMAR indicators) and the importance, feasibility and acceptability of the proposed CLIMAR adaptation measures. This input served as a starting point for the interactive group discussion to put forward the underlying argumentation of this scaling. Besides, the participants were given the opportunity to formulate other potential important tourist values at stake and possible adaptation measures.

14.45: Coffee break

15.00: Interactive workshop session 2 facilitated by Marian Willekens and Frank Maes (MI)

The results of the questionnaire were visualized by placing the different drivers of change mentioned in the questionnaire on the axes (certainty and importance). The results were discussed within the group of attendant stakeholders in order to check if the positioning was correct since the results were based on the use of averages. The group was asked to identify other drives of change. For each driver of change the attendees needed to assign quotas (1-4) regarding certainty and importance. Meaning 1 completely uncertain or unimportant and 4 meaning completely certain or important. In addition there was also the possibility to raise other drivers of change not yet mentioned in the questionnaire. The different drivers of change were divided into 5 categories. Drivers indicated in red are specifically related to coastal tourism.

Environmental drivers

climate change in general, **climate change and coastal tourism**, safety versus nature, nature friendly solutions

Social drivers

population, ageing problem, **foreign tourists**, **inland tourists**, awareness, education, media

Technological drivers

Investing in research (government), change coastal panorama, **new technological development**

Economic drivers

economic crisis in general, **economic crisis related to coastal tourism**, investments in short term, investments in long term, **cheaper flights**, increased employment

Political and legal drivers

global climate agreement, role of Europe, national adaptation strategy, coastal municipalities in general, **coastal municipalities regarding to coastal tourism**, further regionalism of the North sea, integration between stakeholders and government.

7. Results of the workshop

Results of interactive workshop session 1

Some of the results of the questionnaire on tourist values and adaptation measures are presented in Annex 10. The results can be briefly summarized as follows:

- Tourist values:
 - There is a clear link between the perception of probability and importance of tourist values potentially affected.
 - The potential increase of sea mammals and the potential risk to marinas have received the lowest scores.
 - The potential loss of recreational beach area and potential increase of top days have been considered as most probable to occur and also most important in terms of tourist values at stake.

- Adaptation measures:
 - Beach nourishment is believed to be the best strategy to protect the tourist values. This corresponds with the importance of recreational beach area as most important value.
 - Furthermore road pricing, climate building standards and a specific online weather forecast for the coast are believed to contribute to climate change adaptation.

The tourist values and adaptation measures were further discussed. Some main elements of discussion were:

- The limitations of the use of indicators. The CLIMAR team is aware that the use of indicators is a simplification of the reality, and that there exist many other potential indicators of coastal tourism. The selection process will be described in detail in the CLIMAR final report.
- How to define recreational beach (in terms of tourist value)?
- Which parameters are important for a positive experience of the beach? Intensity, width of beach, etc.
- Coastal tourism is mainly determined by the weather. Important is to identify the correlation between a weather pattern and specific activities at the coast.
- Is there a mobility problem? And if so, what are the underlying parameters of the mobility problem.

The results of the discussions will be considered in the further outcome of the CLIMAR project.

Results of interactive workshop session 2

The graphs show the results of the questionnaire and explain the positioning of the drivers of change and discussion below in more detail (Annex 11).

Most drivers of change were seen as important and certain, which indicated that a preferred future was aimed for. The objective of the interactive workshop was to identify the most important drivers of change which will be used to establish the axes on the matrix of the narrative scenarios.

The drivers of change were discussed in order of importance.

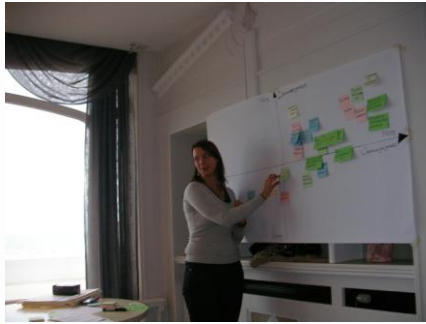
Points of discussion on the result of the questionnaire by participants

- “Climate change and coastal tourism”: it was stated that climate change can both create threats and opportunities for the tourist sector, taking into account the different aspects of the sector. For example, coastal defence measures can have a positive or negative effect on the sector, depending on which measure is chosen. Coastal defence measures which preserve the coastal panorama, maintain the current beaches and create one sea front along the Belgian coast (such as beach nourishment, and larger dykes) are seen as beneficial. In addition temperature rise is also seen as a plus, while sea level rise and the increase of storm events will have negative effects, such as infrastructural damage and people at risk.
- “Safety versus nature”: in case of severe danger, safety measures will prevail over nature conservation. Still when establishing an adaptation policy all aspects, safety-nature-..., have to be taken into account. Safety has been seen as a driver of change towards climate change adaptation. Actions related to climate change adaptation are not only driven by a threat of safety but also by a loss of biodiversity, change of everyday environment, etc.
- “Population/ageing problem”: within the group there was a dissension if population would rise along the coast and if ageing would become a problem. For instance aging can also be beneficial for the coastal tourist sector as elderly people can come to the coast throughout the year.
- “Economic crisis and climate change”: an economic crisis can be separated from climate change adaptation, since an economic crisis takes place in the short term while climate change adaptation is rather a long term action. An economic crisis does not imply a lack of future adaptation action.
- “Economic crisis and tourism”: for tourism, the economic crisis has an impact; however more positive than negative, as an economic crisis implies that more inland tourist will come to the Belgian coast.
- “Change coastal panorama”: it is important that the existing coastal view is preserved. It is likely that changes will occur, although the manner of realization is the most important (communication towards coastal stakeholders, integrated approach, and consensus).

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- “Global climate agreement, role of Europe, national adaptation strategy, coastal municipalities in general and coastal municipalities regarding to coastal tourism”: all institutional players have their role in climate change adaptation. Europe, national and regional governments have an important role to play in climate change adaptation, based on the existing division of competences. Nevertheless it is essential to involve the coastal municipalities throughout the development of an adaptation strategy. As shown on the graph the role of a national climate change adaptation strategy in triggering climate change action was seen as the most important driver.
 - “Further regionalism of the North sea”: a further transfer of competences does not immediately imply an improvement of efficiency and coordination.
 - “Investing in research (government)”: research and investment in research on climate change and adaptation thereto are seen as very important as it creates a better understanding of what’s happening and what needs to be done. Nevertheless a lack of certainty on the effects and impacts of climate change can not lead to a lack of action. Therefore research does not only need to be focussed on a better understanding of climate change but also on finding innovative solutions.
 - “Awareness, education, media”: awareness was seen as a very important driver of change. Education and media both play an important role to achieve more understanding, however education has been seen as more objective and more open to interaction than media. Awareness does not only imply the relevant sectors and governments but also the general public. This discussion leads to a new driver of change, namely “communication of adaptation possibilities to sectors”.
 - “Communication of adaptation possibilities to sectors”: communication should not only signify adaptation possibilities but also research results. Communication leads to a better awareness, consequently a better cooperation and positive action will be reached.
 - “Integration between stakeholders and government”: stakeholders should not only be informed of climate change adaptation but should also be involved in the policy development process. The discussion showed that a good adaptation strategy can only be achieved when researchers, stakeholders and government collaborate in order to establish solutions for climate change: in other words the creation of an integrated coastal vision.

Conclusion

The most important identified drivers of change were investing in research and communication of scientific data to the sectors/stakeholders combined with cooperation to reach an integrated coastal vision.



Pictures: Workshop in action.

Remarks

- The results were affected by the way of questioning, namely that they needed to score certainty and importance at the same time, which lead sometimes to a similar score, even though certainty and importance are two different elements.
- The way of formulating the different drivers, sometimes lead to a restrictive interpretation of the drivers.
- It was not easy to think outside the box of a preferred future, sectoral approach and the existing institutional framework.
- The majority agreed with the original positioning of the drivers of change.
- High representation of the scientific world.