

# Methods to inform society about coastal risks - DE

## 1. Policy Objective & Theme

- ADAPTATION TO RISK: Managing impacts of climate change and safeguarding resilience of coasts/coastal systems
- ADAPTATION TO RISK: Preventing and managing natural hazards and technological (human-made) hazards
- ADAPTATION TO RISK: Integrating coherent strategies covering the risk-dimension (prevention to response) into planning and investment

## 2. Key Approaches

- Integration
- Participation
- Knowledge-based
- Technical

## 3. Experiences that can be exchanged

A sound communication strategy was developed and educational material (booklet and exhibition) published to inform the inhabitants of flood-prone areas of risks and how to reduce them.

## 4. Overview of the case

A communication strategy was developed to inform inhabitants of flood-prone areas of the North Sea coast about the risks of flooding, to raise awareness of the public and decision-makers. The effect of the information booklet was evaluated.

## 5. Context and Objectives

### a) Context

Almost a quarter of Schleswig-Holstein is flood-prone: at the North Sea and Elbe estuary which is less than 5 metres above sea level, and at the Baltic Sea coast less than 3 metres. The test areas for this study were the North Sea island Pellworm, the island Nordstrand with a connection to the mainland, the Elbe estuary city Glückstadt, and the city Eckernförde at a Baltic Sea bay where only part of the city area is flood-prone.

People tend to become indifferent to risks when they have chosen to take the risk to live in a flood-prone area. An earlier study about risk perception in St. Peter-Ording had revealed an information deficit, a lack of preparedness, and the wish of people to participate in coastal defence planning and action. Only a well informed society is convinced to take protective measures and to participate in decision-making processes concerning coastal protection. Acceptance of protective measures rises with the grade of information about risks in the population. Information material and exhibitions on storm floods and storm flood protection exist.

### b) Objectives

The aims were to develop a communication strategy for information about storm flood risks in Schleswig-Holstein that addresses the information needs and wishes of people. Awareness was to be raised for coastal and catastrophic protection to lower the risks for residents in flood-prone areas.

## 6. Implementation of the ICZM Approach (i.e. management, tools, resources)

### a) Project Management

The case study was co-ordinated and co-financed by the Ministry of the Interior of Schleswig-Holstein / Emergency Planning & Disaster Management Division, and the Schleswig-Holstein State Ministry for Agriculture, Environment and Rural Areas / Coastal Defence Division.

### b) ICZM tools

An information booklet on storm flood risks and protection measures was developed based on recommendations from the analysis. An impact study evaluated the public perception of the booklet, of storm flood risks and protective measures, about climate change impact and participatory action in two separate questionnaires (sent to the same households 8 weeks apart). Based on all the results and findings a communication strategy was developed and a travelling exhibition produced including recommendations from mixed target groups.

Existing communication strategies, material, and exhibitions in partner countries and Germany were researched and literature on the topic was analysed. Recommendations for risk communication are to focus communication on personal affectedness and on the effectiveness of preventive measures that people can take themselves. People tend to become indifferent to risks when they have chosen to take the risk to live in a flood-prone area. Current risks should therefore be pronounced to re-sensitize people. Risks should be described clearly and manageable, not stressing dangers more than necessary (which could result in a feeling of helplessness). Photos and illustrations provide intuitive access to scientific contents and the description of measures taken by authorities. Sources for further and more detailed information should be given, contact persons named. The quality of the information and the sources stress the trustworthiness of the information given.

The general public in selected communities at North and Baltic Sea was asked to evaluate the booklet and state their knowledge about coastal protection about their own preventive action and participation in decision-making about storm flood protection. About 70% thought the booklet useful. People at the North Sea coast had a higher risk awareness than at the Baltic Sea coast. About 80% of the respondents of the questionnaires wished for regular communication on the topic of coastal protection at least once per year, and 70% consider radio and television as most important communication channels but also official publications and newspaper and magazine reports are highly approved. Only about 36% estimate the internet as a very important source of information. Almost all people are convinced that climate change is happening, and more than 80% agree that it will influence future storm floods. About 23% would participate in coastal defence, 80% have not been taking an active part at the time of the study.

Recommendations for a communication strategy are: combine communication media to target the different awareness groups. People with risk awareness are actively looking for information while those unaware of risks have to be sensitized for the topic. New forms of information distribution should be used additional to traditional information spreading (calendars, postcards, theatre performances, SMS messages, etc.). Regular information should be produced for television and radio. Official publications, flyers, information events, newspaper articles should be produced to mediate information about regional implications and personal protective measures. Information about local implications of climate change is needed. Information material should follow a uniform layout. Possibilities for public participation need to be increased. When a communication strategy has been developed it needs to be communicated to all responsible authorities and offices that release information material on the topic and the responsible persons have to be trained.

The exhibition was produced in steps and following the recommendations of the impact assessment: literature research and analysis, analysis of strengths and weaknesses of best examples, concept development in workshops discussing content, layout, and logistics, and production of the actual exhibition. Two random groups (picked from the street at separate dates) were asked to study an existing exhibition, to evaluate it and make recommendations on how to improve the attractiveness and raise the amount of easily-understandable content. One group was presented with additional (new) posters and asked to comment on them as well. Recommendations were developed from the different analyses: reduce text to most important information, explain technical terms separately, use coloured graphs and illustrations with clear relationship to the text, practical advice, further regional information sources, clearly identify the information pavilion, additional advertisements. Storm floods and risks, coastal and disaster protection, climate change and rising sea level were the three topics for the new exhibition. Provocative questions and interactive media urge the exhibition visitor to draw the connection between storm flood risks and their own life and surroundings, thus creating interest.

## 7. Cost and resources

The Schleswig-Holstein case study cost €273,000 of which 50% was financed by ERDF funds.

## 8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

A communication strategy was developed based on literature and best practice analyses and user feedback. Accordingly a booklet was produced. It met the needs of the people and stimulated them to think about flood risks and prevention. An exhibition was developed based on the feedback from potential users and on the analyses of the literature and best practice examples.

## 9. Success and Fail factors

The first questionnaire was sent back by 16.7% of the people, the second by only 13.71%, probably due to the repetition – one can expect a return rate of 15-20%. Additional knowledge was gained about the risk perception of people, their wishes for information, and the preferred modes of information dissemination via television and radio. Some wishes were to be regularly informed, to gain specific information on regional protection measures, and how to behave in case of a catastrophe. Up to 40% of the people who had received the booklet were stimulated to think about the topic flood risk and prevention. Feedback from potential users added to the literature and best practice analyses on how to convey information to the target groups, and how to design the information material. The Baltic Sea coast population was identified to have a considerably lower risk perception. Thus, the communication strategy for the Baltic Sea coast has to concentrate on awareness-raising. More options for participation have been identified as a need.

## 10. Unforeseen outcomes

None.

## 11. Prepared by








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## 13. Sources

- Coastal flood risk and trends for the future in the North Sea Region, results and recommendations of project Safecoast - Synthesis report (May, 2008). Safecoast project team.
- Final report on the cooperation programme Interreg-IIIB project Safecoast - The informed society (March 2008). Safecoast project team.
- <http://www.hsi.schleswig-holstein.de> (Up-to-date storm flood information for Schleswig-Holstein)
- <http://www.safecoast.org>
- Sturmflut - wat geht mi dat an? Sturmfluten - Wissenswertes und Hinweise zum Selbstschutz (March 2008). Ministry of the Interior Schleswig-Holstein / Emergency Planning & Disaster Management Division and Schleswig-Holstein Ministry for Agriculture, Environment and Rural Areas / Coastal Flood Defence & Coastal Protection Division.
- The informed society - Action 2 final report (September 2007). Knolle, M., Grunenberg, H., Heinrichs, H., Leuphana University Lüneburg / Institute for Environmental and Sustainability Communication for the Ministry of the Interior Schleswig-Holstein / Emergency Planning & Disaster Management Division and Schleswig-Holstein Ministry for Agriculture, Environment and Rural Areas / Coastal Flood Defence & Coastal Protection Division.

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-  Safecoast (8.41 MB) 
  -  Safecoast final report action 2 english (780.29 KB) 
  -  Safecoast\_final\_report\_action\_2\_exhibition\_english (4.42 MB) 
  -  safecoast\_\_west (1.33 MB) 