





"Baltic Challenges and Chances for local and regional development generated by Climate Change"

# **Final Report**

# Questionnaire Results – Regional Conditions, Problems and Potentials due to Climate Change

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#### 1 Introduction

Centre for Climate Science and Policy Research (CSPR) has lead Work Package 3 in BalticClimate. One of CSPR's tasks has been to report the Target Area participants' perceptions of climate change and their perception about the BalticClimate project. Two rounds of questionnaires were sent out to different actors of the project, e.g. project stakeholders, persons working with a BalticClimate Target Area or a BalticClimate Work Package. The intension was to survey where the organisations and local areas stand in respect to their understandings and attitudes to climate change and their work with climate change mitigation and adaptation. The first round was distributed in the beginning of the project, autumn 2009, and included questions on expectations of the project. The second round was distributed in spring 2011 including questions on perceptions of what the project has given and contributed. The Russian Target Area was included as a Target Area later than the others. Thus, the first round to Russia was distributed in autumn 2010 and the second in late spring 2011. This resulted in Russian responses not being included in the overall result that was calculated for the Target Area reports<sup>1</sup>. Hence, when mentioning "overall result" in this final report the Russian responses are excluded, unless other information is given. These overall figures are used since those are the ones that have been used in the project evaluations.

Three of the questions in the questionnaires have functioned as indicator questions for project evaluations. The three indicators were: (1) Percentage of interviewed organizations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities; percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2) ways in which they can mitigate climate change, and (3) – ways in which they can adapt to climate change.

This final report contains four parts: the two first sections include general results from the first- and second round, respectively, the third; discussions and conclusions and the last section contains appendices with copies of the two questionnaires and all Target Area reports for both the first and second round. Thus, if you are specifically interested in one or several Target Areas, please locate the specific reports for those Target Areas in the Appendices and you will find all available information. In addition, the overall results are included in each of all Target Area reports.

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<sup>&</sup>lt;sup>1</sup> The overall result in the second round Russian Target Area report contained the Russian response as well but not the other second round Target Area reports.







### 2 General Results – First Round

This section contains a summary of the result of the first questionnaire round. In some cases specific Target Area results are highlighted but generally, the overall results are mentioned.

The number of responses for the different Target Area varied, for example, 10 % of the responses were from the Estonian Target Area and 27 % form the Lithuanian Target Area. Resulting in different Target Areas to weight different in the overall result – a circumstance which we want to emphasize.

The result showed that over 80 % of the respondents thought that we will get a warmer climate, especially in the winter. Over 50 % of the respondents thought that there will be more precipitation during the year; a larger part of the responses thought that the increase in precipitation will occur during winter than during summer. There were, however, a considerable proportion of the respondents who believed that the amount of precipitation during the year will decrease.

One question in the survey concerned the perception of climate change consequences on the respondent's sector. The majority of the respondents thought that climate change will affect his/her sector both today and in 20 years – about the same percentage both for today and the future. The overall perception was that the effects today will be both minor or moderately negative and positive. Compared to the perception of today's effects, a higher percentage thought that the future effects on sectors will be major positive and negative. However, the majority believed that the effects will be moderately negative and positive for the future as well.

Another question concerned climate change effects on conditions for a number of other specified sectors<sup>2</sup>. The general perception was that biodiversity and frequency of weather extremes will be affected most negatively – about 70-60 % of the overall respondents believed that the conditions for those sectors will be worse or much worse. The results showed that there is more hope in energy supply, water supply and industry. The perception was that the seriousness of consequences will increase with time. On a scale from 1 to 10, the most frequent answer for today's seriousness was 1-3, for 20 years ahead: 3-6 and 100 years from now: a median around 7.

Is your organisation working actively with climate change? This was one of the questions which functioned as a project indicator throughout the project. The overall result for this question indicates that 61 %<sup>3</sup> of the respondents work in organisations which in turn worked actively with climate change. The Swedish response had the highest percentage of "yes" answers (94 %) fallowed by Latvia and Germany. Estonia, Finland and Lithuania had a lower

<sup>&</sup>lt;sup>2</sup> Agriculture, Forestry, Fishing, Industry, Water Supply, Energy Supply, Human health, Coastal infrastructure, Frequency of weather extremes, Biodiversity

<sup>&</sup>lt;sup>3</sup> Russian Target Area excluded







percentage; however, still more than 42 % answered that their organisation worked actively with climate change. The exception was the Russian Target Area result where only 7 % of the respondents answered that that their organisation is working actively with climate change.

In a follow up question they were asked if they work with climate change in their personal current work position. The resulting picture was slightly different from the previous question. Generally, a higher ratio of the respondents answered that they work with climate change in their work position compared to climate change work in the organisation. This was, nevertheless, not the case for the Russian result where the same ratio (7 %) answered that they work with climate change in their position.

One question treated the usefulness and reliability of information sources. The respondents considered the most useful sources of information to be Scientific Reports, Scenarios, Internet and Training Courses. Media, Local Officials and Local Researchers were not seen as useful. The result of reliable sources was slightly different. The most reliable were considered to be Scientific Reports and Scenarios but the least reliable were Internet, Other Media and Local Officials.

The two other indicators were included in one question. The respondents were asked how informed they consider that they are about different climate change fields. Climate change adaptation and mitigation were the two fields which functioned as indicators. Over 70 % had the perception that they were at least "fairly well" informed about causes of climate change. Somewhat fewer thought that they were at least fairly well informed about mitigation of climate change (64 %) and effects of climate change. The respondents had the perception that they were least informed about climate change adaptation (37 %).

In the first questionnaire round, the respondents were asked about their BalticClimate expectations. Raised awareness was the outcome expected by most respondents but many also expected increased personal skills, contacts and influence decisions. Political support was only expected by a few.







## 3 General Results – Second Round

The second questionnaire was distributed in spring 2011 but as mentioned in the introduction, the Russian Target Area was surveyed about two months later than the others and was not included in the analysis of the overall result. As in the first round the number of respondents from the different Target Areas varied. Swedish results contributed the least with only 8 % whereas Finland and Germany both contributed 26 % to the overall result. The majority of the respondents were involved in a Target Area and about 35 % said that they were BalticClimate stakeholders and involved in a work package, respectively. Only 34 % of the respondents also answered the first questionnaire. Consequently, a comparison between the two surveys gets a bit deceptive. This will be further discussed in the next section,







Reflection and Conclusion. This section contains a summary of the result of the second questionnaire round. In some cases specific Target Area results are highlighted but generally the overall result is the one mentioned.

The indicator questions were included in this questionnaire as well. In the question about respondents' organisation working actively with climate change, 89 % of the Swedish respondents answered that their organisation does. Germany and Finland responses were slightly below the Swedish, 87 % and 77 % respectively. About 50 % of the Estonians, Latvians, Lithuanians and Russians responded that their organisation works actively with climate change. The same pattern was seen for the question on climate change activities in the personal work position. Swedish, German and Finnish responses had the highest ratio of climate change activities in present work position while the Target Area of Estonia, Latvia, Russia and Lithuania had lower ratios.

The perception on most reliable source of information is Scientific Reports, the respondents considered Training Courses to be the second most reliable and Other Media the least reliable. Scientific Reports were also considered as the most useful source followed by Local Researchers. "Other Media" was, as well as the least reliable, considered as the least useful source.

How informed the respondent consider that he/she is about climate change mitigation and adaption was the second and third indicator used for the BalticClimate project. The question also included other climate change fields than mitigation and adaptation, for example, causes and effects. The result for the second questionnaire indicated that they are most informed about effects; about 87 % answered that they were at least "fairly well" informed. 78 % considered themselves to be at least fairly well informed about mitigation and 65 % about adaptation.

In the first survey the respondents were asked what they expect from the BalticClimate project. In the second, they were instead asked what effects they consider that BalticClimate has had. 75 % of the respondents thought that BalticClimate has led to raised awareness; raised awareness was the effect with highest ratio followed by "increased personal competence" and "establish contacts". "Political support" and "influence decisions" had the least number of respondents considering that as effects (about 20 % to 30 %).

Another question evaluating the project treated the usefulness of BalticClimate activities. The respondents were asked to rank the activities. The result indicated that the Sustainable Development Guidelines and the Vulnerability Analysis work in local/regional groups were the two most useful activities. However, there was not a big difference in mean value between the different activities.

The question on seriousness of climate change consequences, today, in 20 years and in 100 years, was included in this second questionnaire as well. The respondents should rank







between 1 and 7 instead of between 1 and 10 as in the first questionnaire. The result showed that the median for today's seriousness was 3; for 20 years ahead: 4; and for 100 year ahead: 6. This is the same pattern as in last questionnaire but the result indicated that the perception of seriousness of climate change consequences in 100 years increased compared to the last survey.

More than 50 % of the respondents answered that they plan to work with climate change after the BalticClimate project and about 10 % answered that they will not. The rest answered that they do not know if they will continue with climate change work after BalticClimate.







#### 4 Reflection and Conclusion

The three indicator questions which functioned as BalticClimate indicators in the project evaluations were reflected on in each of all Target Area Reports from the second round (Appendix 9-16, page J-2-P-1). Overall targets for the three indicators were set after the first round. The objective was to fulfil these targets by the end of the BalticClimate project. By the second questionnaire analysis the intension was to compare the questionnaire results of the second round with the first round. Unfortunately, only about one third of all the respondents from the first round also answered the second questionnaire. In addition, some of the Target Areas had very few respondents. Due to the circumstances no statistical tests on differences and changes over time and between Target Areas were conducted. *The reflections and conclusions drawn on tendencies and differences are therefore not statistically significant*.

The question, "is your organsiation working actively with climate change?" was one of the indicators. 61 % of all respondents in the first round answered that their organisation did work actively with climate change. The target was that 71 % should answer that they actively integrate the question on climate change in their development activities. In the second questionnaire, 69 % answered that their organisation is working actively with climate change, Table 1. Thus, the target was not met, and it is hard to draw any conclusions from this since it is such small difference and not the same group of respondents as in the first questionnaire. For the specific Target Areas, three out of six had an increased ratio of respondents' organisations working actively with climate change. Finland and Germany did not reach the target in the first round but managed in the second round. On the other hand, for the Latvian responses, 71 % of the respondent's organisations worked with climate change during the first round but only 56 % during the second round.

Table 1: Percentage of surveyed organizations that actively integrate the issue of climate change into their development activities

| Is your organization working actively with climate change? |                 |      |      |  |  |  |  |  |  |  |
|--|-----------------|------|------|--|--|--|--|--|--|--|
|  | Baseline Target |      |      |  |  |  |  |  |  |  |
| Respondents  | 2009            | 2011 |      |  |  |  |  |  |  |  |
| Estonia  | 42%             | 47%  | 71%  |  |  |  |  |  |  |  |
| Finland  | 47%             | 77%  | 71%  |  |  |  |  |  |  |  |
| Germany  | 67%             | 87%  | 71%  |  |  |  |  |  |  |  |
| Latvia   | 71%             | 56%  | 71%  |  |  |  |  |  |  |  |
| Lithuania  | 52%             | 46%  | 71%  |  |  |  |  |  |  |  |
| Sweden   | 94%             | 89%  | 71%  |  |  |  |  |  |  |  |
| Russia   | 7 %             | 7 %  | 71 % |  |  |  |  |  |  |  |
| Overall  | 61%             | 69%  | 71%  |  |  |  |  |  |  |  |







64 % of the respondents in the first round answered that they were at least "fairly well" informed about ways mitigate climate change, 37 % that they were at least fairly well informed about adaptation to climate change. The targets set after the first round were 81 % and 57 % for mitigation and adaptation respectively, Table 2. The result for mitigation increased to 78 %, a notable increase but still below the target. The result for adaptation increased to 65 % which is well above the target. Even though it is not possible to draw any certain conclusions, the results indicate that something has happened with the understanding of climate change adaptation during the BalticClimate period.

Table 2: Percentage of surveyed persons in BalticClimate Target Areas that feels at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

Do you think you are well informed about...?

|             | the wa   | ys in which | h you mitigate | the ways in which you can |      |        |  |
|-------------|----------|-------------|----------------|---------------------------|------|--------|--|
|             | Baseline | 9           | Target         | Baseline                  |      | Target |  |
| Respondents | 2009     | 2011        |                | 2009                      | 2011 |        |  |
| Estonia     | 67%      | 62%         | 81%            | 25%                       | 74%  | 57%    |  |
| Finland     | 87%      | 90%         | 81%            | 33%                       | 70%  | 57%    |  |
| Germany     | 62%      | 94%         | 81%            | 40%                       | 77%  | 57%    |  |
| Latvia      | 65%      | 67%         | 81%            | 25%                       | 44%  | 57%    |  |
| Lithuania   | 35%      | 48%         | 81%            | 23%                       | 43%  | 57%    |  |
| Sweden      | 100%     | 89%         | 81%            | 94%                       | 55%  | 57%    |  |
| Russia      | 24%      | 40%         | 81%            | 20%                       | 30%  | 57%    |  |
| Overall     | 64%      | 78%         | 81%            | 37%                       | 65%  | 57%    |  |

In summary, the overall results of the questionnaires indicate that BalticClimate has had different important effects, the respondents especially considered that they have gained raised awareness. The results also indicate that many of the activities in the BalticClimate project have been useful for the participants.







# **Appendices**







### Appendix A - Questionnaire 1

# BalticClimate Baltic Challenges and Chances for local and regional development generated by Climate Change

# Questionnaire to Project Participants and identified stakeholders/possible partners

#### To Whom it may concern,

You have received a questionnaire from the project BalticClimate, which is co-financed by the EU Baltic Sea Region Programme 2007-2013 (http://eu.baltic.net/). BalticClimate focuses on supporting regions, municipalities, and cities in the Baltic Sea Region to pro-actively deal with the issue of climate change.

This questionnaire surveys regional conditions, problems and potentials in general and due to climate change in particular, perceptions of climate change, level of information, and expectations on the project and is sent out by the Centre for Climate Science and Policy Research (CSPR), Linköping University, Sweden, who leads Work Package 3 within BalticClimate. The data will be handled carefully and all respondents are granted full anonymity. If you have any queries, please do not hesitate to contact Therese Asplund at therese.asplund@liu.se

We would greatly appreciate if you could devote about fifteen minutes of your time to answer this brief questionnaire attached to this letter. Please return the questionnaire either to: <a href="mailto:balticclimate@tema.liu.se">balticclimate@tema.liu.se</a> or to the person having handed or sent out the questionnaire to you. If you submit the questionnaire electronically, please do not forget to save the changes before submitting it. Please reply by the 5<sup>th</sup> of March 2009 at the latest.

We are grateful for your contribution,

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Questionnaire to Project Participants and identified stakeholders/possible partners of BalticClimate



| 1a. What sector do you work      | in?                              |                                   |
|----------------------------------|----------------------------------|-----------------------------------|
| 1b. What is the name of your     | Organisation?                    |                                   |
| 1c. What are the primary act     | ivities carried out by your Or   | ganisation?                       |
| 1d. Demographic information      | 1.                               |                                   |
| What is your gender?             | Male                             | Female                            |
| What is your country of          | Estonia  Finland                 | Poland                            |
| residence?                       | Finland                          | Sweden Other places specify       |
|                                  | ☐ ☐ Germany ☐ Latvia             | Other, please specify             |
|                                  | Lithuania                        |                                   |
| What is your year of birth?      | Бинани                           |                                   |
|                                  |                                  |                                   |
|                                  |                                  |                                   |
|                                  |                                  |                                   |
|                                  |                                  |                                   |
| 1a Is it planned that you now    | consilve (If soveral entions ann | ly, please select more than one.) |
|                                  | alticClimate Work Packages       | ry, please select more than one.) |
|                                  |                                  | t activities: Gävleborg, Western  |
|                                  | nen, Harjumaa, Raplamaa, Ces     | 0                                 |
| Pskov                            | , <u>J</u> , <u>F</u> , & & &    |                                   |
| are an identified stakehold      | ler not presently engaged in the | BalticClimate project             |
| Other, please describe in one so |                                  | • •                               |
| _                                |                                  |                                   |







# 2. What are in your opinion

| Today    |   | 1  |   | ork in:   |  |
|----------|---|--|---|---|--|
| •        |   | 1.   |   |   |  |
|          |   | 2.   |   |   |  |
|          |   | 3.   |   |   |  |
|          | 0 1   |  |   |   |  |
|          | n for the coming  | 1.   |   |   |  |
| 20 years | s period  | 2.   |   |   |  |
|          |   | 3.   |   |   |  |
| 21 41 4  |   | 1 4 4 1 6  | • 41 4                                    | 1 ' 0   |  |
|          | nree primary region   |  | ing the sector you w                      | vork in?  |  |
| Today    |   | 1.   |   |   |  |
|          |   | 2.   |   |   |  |
|          |   | 3.   |   |   |  |
| Foregon  | n for the coming  | 1  |   |   |  |
|          | n for the coming  | 1.   |   |   |  |
| 20 years | s period  | 2.   |   |   |  |
|          |   | 3.   |   |   |  |
| Today:   | Yes   | □ No □   | Don´t know                                |   |  |
| I        | f yes, please indicat   | e positive and nega  | tive impacts of clima                     | nte change on your se<br>crate or major regiona |  |
| I:<br>I: | f yes, please indicat<br>ndicate with an "X"                        | e positive and nega  | tive impacts of clima                     |   |  |
| I:<br>I: | f yes, please indicat<br>ndicate with an "X"                        | e positive and negat, if the impacts willor:  Minor regional | tive impacts of climal have a minor, mode | Major regional                                  |  |
| I:<br>I: | f yes, please indicat<br>ndicate with an "X"<br>mpact on your secto | e positive and negat, if the impacts willor:  Minor regional | tive impacts of climal have a minor, mode | Major regional                                  |  |







If yes, please indicate positive and negative impacts of climate change on your sector. Indicate with an "X", if the impacts will have a minor, moderate or major regional impact on your sector:

|                               |  | Minor re impact                | egional | Moder<br>region   | rate<br>al impact | Major r<br>impact            | egional       |
|-------------------------------|--|--------------------------------|---------|-------------------|-------------------|------------------------------|---------------|
| Pe                            | ositive impact   | S                              |         |                   |                   |                              |               |
|                               | egative<br>npacts  |                                |         |                   |                   |                              |               |
|                               | <b></b>  |                                |         |                   |                   |                              |               |
| 2d. In 20 yo                  | ears, how do y   | ou think ten                   | nperatu | re and p          | orecipitation     | have char                    | nge in your   |
| Temperatur<br>Temperatur      | re:<br>re will change r  | nainly during                  |         | varmer<br>ummerti | me wint           | er<br>ertime                 | don´t knov    |
| 2e. To what<br>following s    | n: n will change r t degree do yo ectors and act rse" to "much | u think clim<br>ivities in you | g:      |                   | affect the co     | ertime<br><b>onditions f</b> |               |
|                               | Much<br>worse  | Worse                          | Unch    | nanged            | Better            | Much<br>better               | Don't<br>know |
| Agriculture                   |  |                                |         |                   |                   |                              |               |
| Forestry                      |  |                                |         |                   |                   |                              |               |
| Fishing                       |  |                                |         |                   |                   |                              |               |
| Industry                      |  |                                |         |                   |                   |                              |               |
| Water supp                    | ly   |                                |         |                   |                   |                              |               |
| Energy                        |  |                                |         |                   |                   |                              |               |
| supply                        |  |                                |         |                   |                   |                              |               |
| Human                         |  |                                |         |                   |                   |                              |               |
| health                        |  |                                |         |                   |                   |                              |               |
| Coastal                       |  |                                |         |                   |                   |                              |               |
| infrastructu                  | re   |                                |         |                   |                   |                              |               |
|                               | - C  |                                |         |                   |                   |                              |               |
| Frequency of                  | of   |                                |         |                   |                   |                              |               |
| Frequency of weather          | of   |                                |         |                   |                   |                              |               |
| Frequency of weather extremes |  |                                |         |                   |                   |                              |               |
| Frequency of weather          | y  |                                |         |                   |                   |                              |               |







| 2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region? Please use a scale from 1 to 10, 1 would mean that it is not a serious problem at all and 10 would mean that it is extremely serious.  Not a serious problem  A very serious problem |                 |                |                |                 |        |      |  |
|---|-----------------|----------------|----------------|-----------------|--------|------|--|
| <i>1</i>  | 3               | 4              | 5 6            | 7               | 8 9    | ] 10 |  |
| In 20 years tim   | ne              |                |                |                 |        |      |  |
| In 100 years ti   | me              |                |                |                 |        |      |  |
| 3a. Is your organisation currently working actively with climate change?  |                 |                |                |                 |        |      |  |
| □Yes [  | □No             |                |                |                 |        |      |  |
| If yes, how:  |                 |                |                |                 |        |      |  |
|   |                 |                |                |                 |        |      |  |
| 3b. Does your   | present posi    | tion include   | issues related | l to climate cl | nange? |      |  |
| □Yes [  | No              |                |                |                 |        |      |  |
| If yes, please o  | continue. Other | erwise go to q | juestion 3e.   |                 |        |      |  |
| 3c. What clim   | ate change r    | elated tasks   | are you invol  | ved with?       |        |      |  |
|   |                 |                |                |                 |        |      |  |

**3d.** What sources of information for climate change have you used or do you use and how trustworthy do you find them? Please rank each source of information from 1 to 5 with 1 meaning "least useful" or "least reliable" and 5 meaning "most useful" or "most trustworthy"

| Useful | Reliable | Source of information        |
|--------|----------|------------------------------|
| Rank   | Rank     | Research/Scientific reports. |







| Rank   | Rank      |        | Clin | Climate scenarios from National Climate Computing Centres or the like. |                |                   |       |  |
|--|-----------|--------|------|--|----------------|-------------------|-------|--|
| Rank   | Rank      |        | Rese | earchers in my   | region/organ   | isation.          |       |  |
| Rank   | Rank      |        | Offi | cials in my reg  | ion/organisat  | ion.              |       |  |
| Rank   | Rank      |        | Sou  | rces available o   | on the Interne | et.               |       |  |
| Rank   | Rank      |        | Sou  | rces available t<br>national pape                                      |                | media, e.g. local | and   |  |
| Rank   | Rank      |        | Trai | ning courses, e  | etc.           |                   |       |  |
| Rank   | Rank      |        | Othe | er information   | sources, pleas | se list and rank: |       |  |
| Rank   | Rank      |        | Othe | Other information sources, please list and rank:                       |                |                   |       |  |
| 3e. Personally, do you think that you are well informed or not about |           |        |      |  |                |                   |       |  |
|  |           | Very v |      | Fairly well  | Not well       | Not informed      | Don't |  |
| the cause  | s of      | inforn | 1ea  | informed   | informed       | at all            | know  |  |
| climate cha  |           |        |      |  |                |                   |       |  |
| the effect   | ets of    |        |      |  |                |                   |       |  |
| the ways you mitigate change?  | in which  |        |      |  |                |                   |       |  |
| the ways<br>which you o<br>to climate c                              | can adapt |        |      |  |                |                   |       |  |

| 3 f. What kind of scientific knowledge do you ask for in order to increase the possibilities |
|--|
| to a sustainable management of your region?  |
|  |
|  |
|  |
|  |

**4a.** Have you, within your present position, participated in other sustainable development projects or activities? Please list the two most valuable projects or activities, according to you.

If it is planned that you are a representative of a Project Partner/Associated Organization in the BalticClimate project, please continue. Otherwise we thank you for your cooperation!

4b. Why do you participate in the BalticClimate project?







| <u>l.</u> | What effects are you expecting from BalticClimate?                           |
|-----------|--|
| Ц         | Raising awareness of climate change.   |
| Ц         | Gaining political support or financial resources for my organisation's work. |
| Ц         | Developing my personal skills/competence.                                    |
|           | Influencing decision making in my region.                                    |
|           | Establishing contacts with other organisations.                              |
|           | No specific effects.   |
|           | er expected effects, please describe in one sentence:                        |
|           |  |

Thank you for your cooperation!

Mattias Hjerpe, CSPR and Dennis Ehm, ARL







# "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix B - Questionnaire Results First Round, Estonian Target Area

June 7, 2010

Author:

Markus Vihma, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







## **Summary**

This document provides an overview of responses given to the questionnaire sent out in spring 2009. It consists of two parts: General characteristics of all respondents and country specific overview of perceptions.

Out of 32 questionnaires sent out to Estonian partners, 12 people responded, which contributes 10% to the overall response stock within the project, Figure 1. Most of the Estonian respondents were involved in the target area or work packages and there was only one stakeholder (Figure 4).

Estonian respondents are slightly more optimistic than the overall project respondent—many people do not believe that climate change has yet had an effect on their sector (33%) or will have in 20 years (25%) (Figure 6). Nevertheless they expect increasing summer temperatures and more precipitation throughout the year (Figure 9 and Figure 10). About one third of the Estonian respondents (33%) consider climate change to be an extremely important issue in a hundred years perspective (Figure 15). The most vulnerable sectors are considered to be: forestry, health, water supply, coastal infrastructure and biodiversity (Figure 13). Frequency of weather extremes is expected to increase and energy supply and fishing were considered the least vulnerable sectors (Figure 13).

Currently 50% of respondents (Figure 17) and 42% of their organisations (Figure 16) work with climate change. It stands out that Estonian respondents are neither well-informed about adaptation nor mitigation of climate change (Figure 20). Still the Estonian respondents perceived influencing decisions as the most favoured outcome of the BalticClimate project (Figure 22).







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# General characteristics of all respondents

The first two graphs (Figure 1 and Table 3) describe how many responses were received from each TA. Response rates shown in Table 3 declare that the number of questionnaires sent out varies by country and therefore has affected the number of responses received. This has to be kept in mind when looking at graphs with overall perceptions because, for example, as Estonia contributed 10% of total responses and Lithuania 27%, the latter has more influence over end-results from a country's perspective. This way weight of individual answers was not diminished.

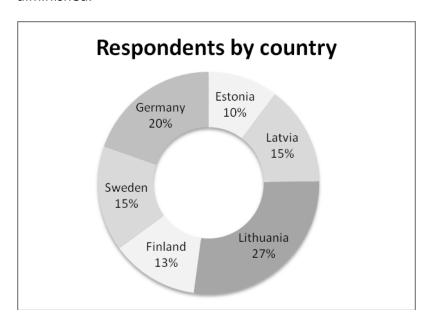


Figure 1: Percentage of total respondents by country

Table 3: Response rates by country and total

| Country   | Distributed | Responses |     | _          |
|-----------|-------------|-----------|-----|------------|
|           | No.         | No.       | %   | % of total |
|           |             |           |     | BSr        |
| Estonia   | 32          | 12        | 38% | 10%        |
| Finland   | 32          | 15        | 47% | 13%        |
| Germany   | 75          | 23        | 31% | 20%        |
| Latvia    | 78          | 17        | 22% | 15%        |
| Lithuania | 38          | 32        | 84% | 27%        |
| Sweden    | 107         | 18        | 17% | 15%        |
| Total     | 362         | 117       | 32% | 100%       |







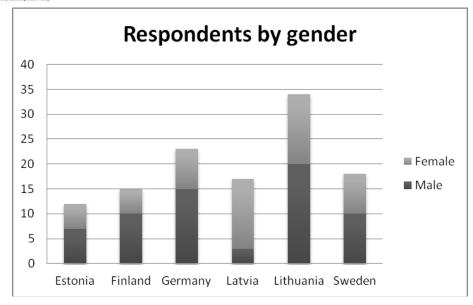


Figure 2: Total respondents by gender

Figure 2 describes gender division differences in participating countries. All had slightly more male respondents whereas Latvia as an exception had a strong female presence.

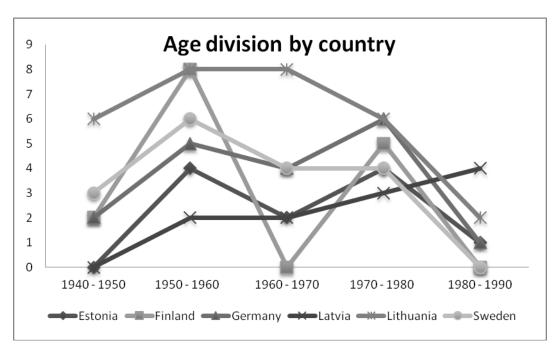


Figure 3: Age division by country

The graph explaining age division by country Figure 3 is in absolute terms therefore it reflects the varying number of respondents. The exact value of points is less important than the shape of the lines. It must be noted that a Lithuanian born in 1937 was counted in the group of 1940 - 1950 and another decade was not added for one entity. The most numerous age groups are 1950-1960 and 1970-1980.







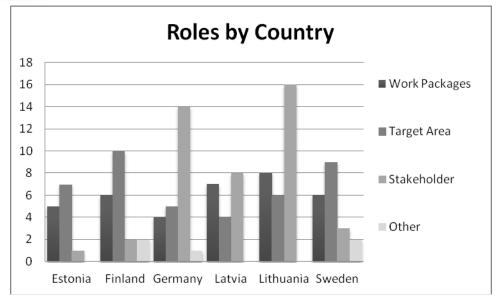


Figure 4: Roles in the project by country

Figure 4 shows what roles the respondents have in the BalticClimate project. Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number people directly involved in work packages is more or less the same throughout countries, changing up to two persons from the average of six.



Figure 5: Overall roles by gender

As seen on Figure 5 here is not a huge inequality when it comes to gender distribution by roles. Still it's visible that there are 12 more women involved in work packages, 7 more men in target areas and 4 more male stakeholders.







# **Country specific overview of perceptions**

# 2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

Figure 6 combines a bar graph that shows specific country's perception with a line to project overall opinions today and in 20 years.

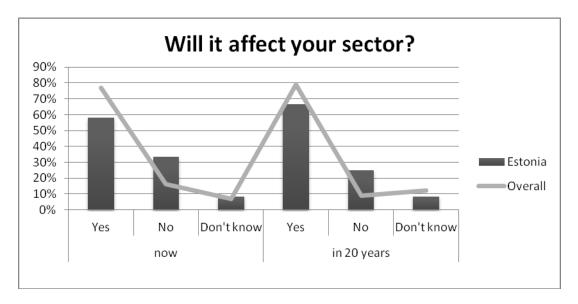


Figure 6: Estonian respondents' perception on the impacts of climate change in comparison with the overall

It shows that Estonian respondents are slightly more optimistic than is the overall respondent. 58% of the Estonian respondents believe it will affect their sector today and 67% in 20 years comparing to the 77% and 79% respectively of the overall respondents. The level of Estonian respondents who do not know what will happen is similar to the overall respondents.







#### How?

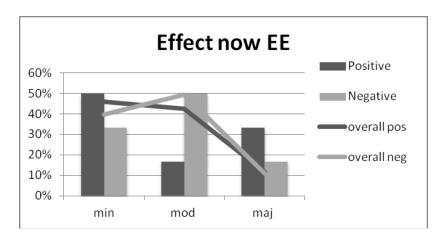


Figure 7: Estonian TA perceptions of the nature of impacts today in comparison to the overall.

Figure 7 has three categories for assessing the severity of effects: minor, moderate and major. The slight optimism of Estonians is also described in this graph. It explains that more people believe in major positive changes than the rest. Then again not many believe in moderate positive changes and it questions that optimism. Two opposing views are prevailing and it seems more people (50%) do not believe in positive effects. The negative effect columns follow the line that depicts overall opinion – that is most people believe there will be some negative changes (50% moderate + 17% major)

## And in 20 years?

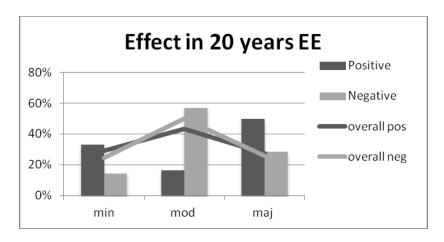


Figure 8: Estonian TA perceptions of the nature of impacts in 20 years in comparison to the overall..

Figure 8 shows believed effects in 20 years. It's clear that more people believe in coming major changes – 29% in negative and 50% in positive. This increase comes at the cost of







declining belief in minor changes, both positive and negative. Belief in moderate change remains almost unchanged.







# 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 9and Figure 10 show perceptions of Estonian respondents on temperature and precipitation change in 20 years. The first column, total, describes the nature of change which is followed by seasonal division. None of the Estonian respondents believed in lower temperature and less precipitation (8% are unsure when it comes to precipitation). A majority believed in temperature increase in winter (83%), 25% believed it may occur in summer. The reason why those percentages do not add up to an even 100% is that a few believed in increase both in summer and in winter temperatures. The same applies to the precipitation graph showing a more equal seasonal distribution with 58% and 50% respectively.

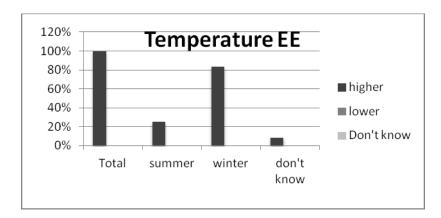


Figure 9: Estonian TA perceptions of temperature change

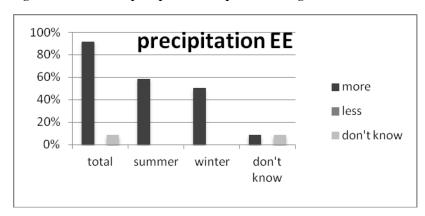


Figure 10: Estonian TA perceptions of precipitation change







## **Overall perception for comparison:**

The next graphs (Figure 11 and Figure 12) provide a comparison with the overall respondents' perceptions. The temperature graph highly resembles the Estonian one, but the precipitation graphs are more diverse. Of the overall respondents, 28% believed in less coming precipitation but similarly there is no strong consensus on seasonal distribution.

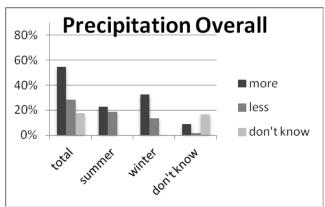


Figure 11: Overall perception on precipitation change.

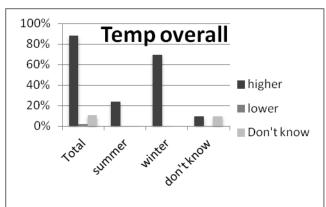


Figure 12: Overall perception on temperature change.







# 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The next following graphs, Figure 13 and Figure 14, show how specific sectors will be affected. Negative effects are projected on negative scale, positive, unchanged and don't know on positive.

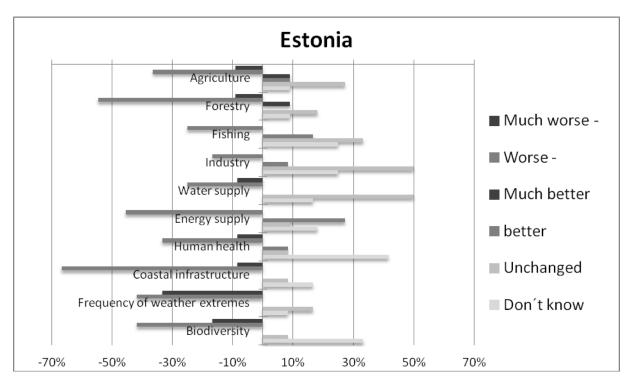


Figure 13: Estonian TA perceptions of changes in sectors and activities due to climate change

Estonian repondents' perceptions in Figure 13 show pessimism on future scenarios. There is no single sector or activity where the situation is clearly believed to get better. The most positive future is predicted for agriculture (9% believe in much better future and 9% in better) and energy supply (27% better) but they too are accompanied by quite strong negative belief - 9% believe in much worse and 36% in worse future for agriculture and 45% in worse future for energy supply. Also fishing (17% better versus 25% worse) and industry (8% better versus 17% worse) sector are believed to be relatively well off. A grimmer future is predicted for everything else with 'frequency of weather extremes' and 'biodiversity' standing out from the crowd.







## Overall perception for comparison:

Overall the perceptions are similar predicting worse future for biodiversity and frequency of weather extremes. Nevertheless there is more hope in energy supply, water supply and industry. 32% believe the situation for energy supply will be better and 2% say much better (at the same time only 21% say worse and 1% much worse), 14% better and 1% much better for industry (against 15% worse and 1% much worse) and 12% better and 1% much better for water supply (against 37% worse and 2% much worse). Despite the somewhat optimistic or balancing figures, future of activities is believed to worsen accrosing to the overall respondents.

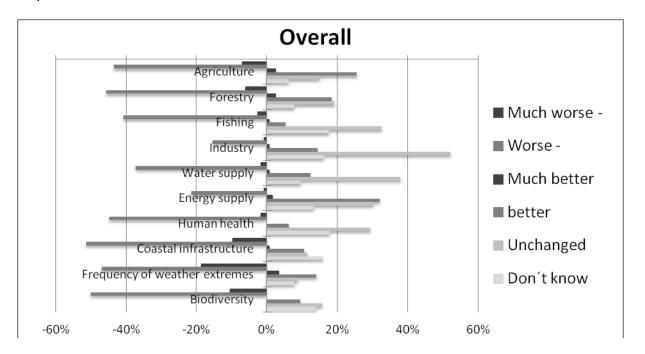


Figure 14: Overall perceptions of changes in sectors and activities due to climate change







# 2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

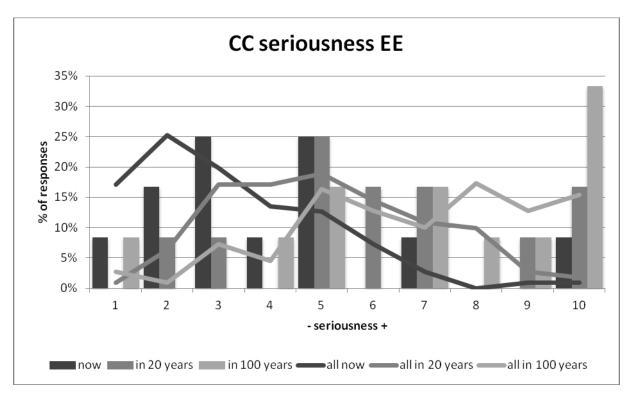


Figure 15: Seriousness of climate change today, in 20 years and in 100 years as is perceived by everyone and respondents from Estonian TA.

Figure 15 explains how serious issue climate change is believed to be. The seriousness scale on the graphs increases from left to right with 1 being the least serious and 10 the most.

As there were 10 options to choose from and Estonia only had 12 respondents, instead of looking at exact columns one should concentrate on groups and patterns. Columns describing seriousness now are more grouped together to the 'not serious' part of the scale with 17% evaluating it with 2, 25% with 3 and 25% with 5. In 20 years the opinions peak around seriousness level 6 (25% giving 5, 17% 6 and 17% 7 for seriousness). Although a notable amount of people assess it with 10 (17%), the columns have grouped together in the middle of the scale. In the case of 100 years a third (33%) believes climate change to be an extremely serious issue (graded 10). With a smaller peak around seriousness level 6 it can be said the perceptions have grouped to the right side of the graph.

The previous description corresponds to the overall perception. A slight difference may be noted when it comes to 20 year predictions – overall median is around 5 but Estonian respondents see it to be slightly more serious with a median around 6. That is because more respondents think of it as extremely serious matter (grading with 9 or 10).







# 3a. Is your organisation currently working actively with climate change?

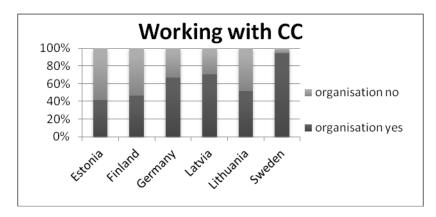


Figure 16: Are organisations of respondents working with climate change?

Figure 16 explains if the organisations of respondents are already actively working with climate change. Swedish respondents are clearly leading the way here (94% saying yes) with Latvian and German respondents following with 71% and 67% respectively answering yes. Estonian, Finnish and Lithuanian respondents are showing somewhat smaller activity with Estonian organisations being most inactive in working with climate change and 58% answering "no".

## 3b. Does your present position include issues related to climate change?

When it comes to working with climate change in personal position, Figure 17 shows different results. Swedish respondents still are still working the most with climate change (94% "yes") but Finnish respondents come in close on second place (87% "yes"). Instead of Estonian respondents being less involved, Latvian and Lithuanian respondents showed bigger inactivity with climate change in the respondents' present position (67% and 68% saying "no" respectively). Also German respondents' involvement shows a decline to 52% answering "yes". More Estonian respondents worked personally with climate change (50%) than they know that of their organisation.







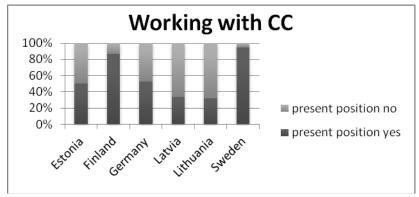


Figure 17: Does present position of the respondents include work related to climate change?

# 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 18 and Figure 19depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all useful/reliable and 5 very useful/ reliable. The results are as follows:

The most useful sources for Estonian respondents are considered to be scenarios and scientific reports which are also seen as reliable. Nevertheless there is little use for local researchers as it is considered the least useful. There was also little expected from the media in terms of its usefulness and reliability. Although Internet is considered very useful, ranking third, respondents' devastating evaluation of its reliability show little faith in it.

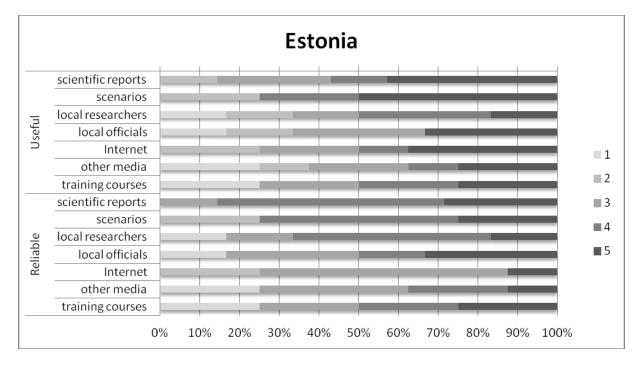


Figure 18: Usefulness and reliability of information sources according to Estonian TA's answers.







## **Overall perception for comparison:**

The overall respondent considered the most useful sources to be: research/scientific reports, scenarios, internet and training courses whereas media, local officials and local researches were not seen as useful. High reliability was omitted to research/scientific reports and scenarios while the least reliable were media, internet and local officials. Also despite a high notion of usefulness of training courses they were not considered to be very reliable.

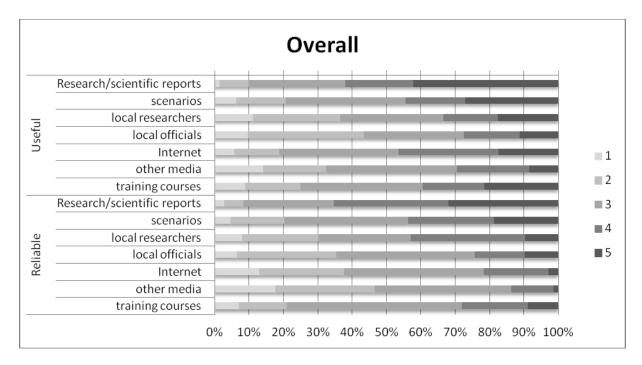


Figure 19: Usefulness and reliability of information sources according to everyone's answers.

## 3e. Personally, do you think that you are well informed or not about ....

Figure 20 and Figure 21 depict the respondents' awareness level of causes, effects, mitigation and adaptation. Responses that came from Estonia are quite positive and everyone seems to have a clear understanding of the nature of climate change and how to mitigate it. Despite the fact there is much smaller understanding on how to adapt to the coming situation – only 8% are very well informed and 67% say they are not well informed.







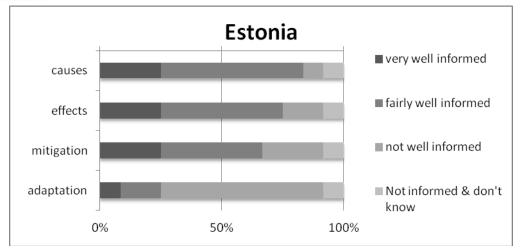


Figure 20: Shows how well are Estonian respondents informed about causes, effects, mitigation and adaptation of climate change.

## **Overall perception for comparison:**

Overall it can be said that people are informed about the causes and effects of climate change and ways how to mitigate it, although there still is a gap with 22% of respondents not being well informed about the causes and 32% about the effects and mitigation. The situation is not as bright when it comes to climate adaptation. Only 7% of respondents are very well informed whereas 52% are not.

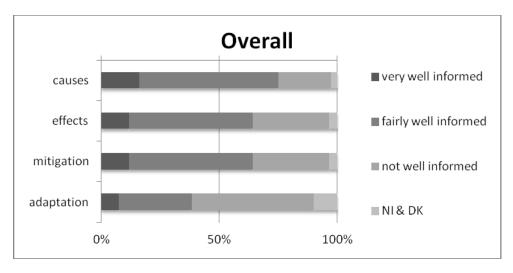


Figure 21: Shows how well are all respondents informed about causes, effects, mitigation and adaptation of climate change.







## 4d. What effects are you expecting from BalticClimate?

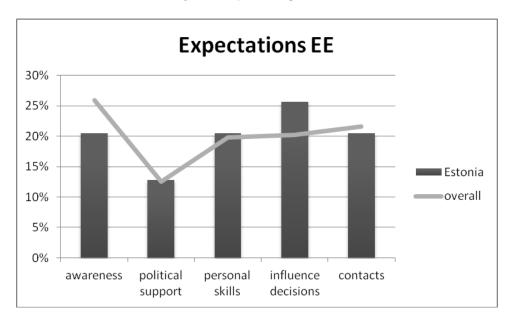


Figure 22: Estonian and overall expectations from the project

Figure 22 depicts hopes and dreams of BalticClimate project and explains whether the respondents expect increased awareness, more political support, higher personal skills, to influence decisions or to obtain new contacts from the project.

Although the differences are not that very big, respondents are mostly expecting the project to have influence decisions (26%). Estonian respondents expect it even more than is done overall in the project. Political support is least expected both by Estonian respondents (13%) and overall (also 13%). Estonian respondents expect greater awareness as much as anything else (21%) but notably less than is expected overall within the project (26%). Still it can be said that all of the above are expected fairly equally.







# "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix C - Questionnaire Results First Round, Finnish Target Area

June 7 2010

Author:

Markus Vihma, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







## **Summary**

This document provides an overview of responses given to the questionnaire sent out in spring 2009. It consists of two parts: General characteristics of all respondents and country specific overview of perceptions.

Out of 32 questionnaires sent out to Finnish partners, 15 people responded, which contributes 13% to the overall response stock within the project, Figure 23. Most of the Finnish respondents were involved in the target area or work packages and there were two persons identified as 'stakeholders' Figure 26.

Finnish respondents are slightly more pessimistic than the overall project respondent — everyone believes that climate change has effect on their sector already now and will have in 20 years (Figure 30). They expect increasing winter temperatures and more precipitation throughout the year (Figure 31 and Figure 32). The most vulnerable sectors are considered to be fishing, coastal infrastructure and biodiversity (Figure 36). Frequency of weather extremes is expected to increase but agriculture, forestry and energy supply are believed to win from changing climate (Figure 36).

Currently 87% of respondents (Figure 39) and 47% of their organisations (Figure 38) work with climate change. It stands out that Finnish respondents are not well-informed about adaptation to climate change (Figure 42) and mitigation together with causes and effects of climate change still leave room for better informing. This may influence raising awareness and influencing decisions which Finnish respondents perceived as the most favoured outcomes of the BalticClimate project.







# Finland

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## **General characteristics of respondents**

Figure 23 and Table 4 describe how many responses were received from each TA. Response rates shown in Table 4 declare that the number of questionnaires sent out varies by country and therefore has affected the number of responses received. This has to be kept in mind when looking at graphs with overall perceptions because, for example, as Estonia contributed 10% of total responses and Lithuania 27%, the latter has more influence over end-results from a country's perspective. This way weight of individual answers was not diminished.

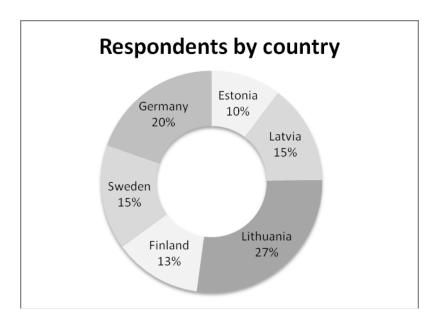


Figure 23: Percentage of total respondents by country

Table 4: Response rates by country and total.

| Country   | Distributed | Responses |     |            |
|-----------|-------------|-----------|-----|------------|
|           | No.         | No.       | %   | % of total |
|           |             |           |     | BSr        |
| Estonia   | 32          | 12        | 38% | 10%        |
| Finland   | 32          | 15        | 47% | 13%        |
| Germany   | 75          | 23        | 31% | 20%        |
| Latvia    | 78          | 17        | 22% | 15%        |
| Lithuania | 38          | 32        | 84% | 27%        |
| Sweden    | 107         | 18        | 17% | 15%        |







**Total** 362 117 32% 100%

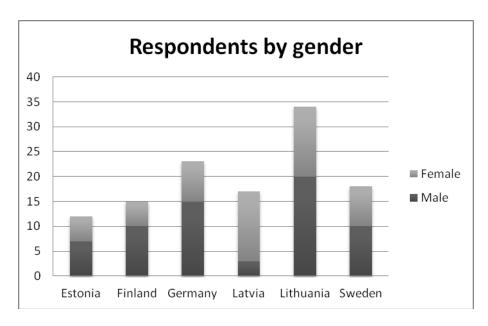


Figure 24: Total respondents by gender

Figure 24 describes gender division differences in participating countries. All had slightly more male respondents whereas Latvia as an exception had a strong female presence.

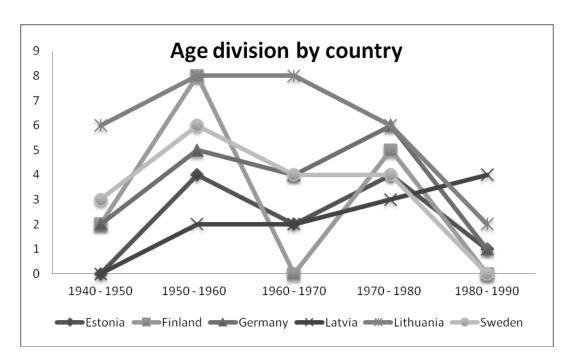


Figure 25: Age division by country

The graph explaining age division by country (Figure 25) is in absolute terms therefore it reflects the varying number of respondents. The exact value of points is less important than







the shape of the lines. It must be noted that a Lithuanian born in 1937 was counted in the group of 1940 - 1950 and another decade was not added for one entity. The most numerous age groups are 1950-1960 and 1970-1980.

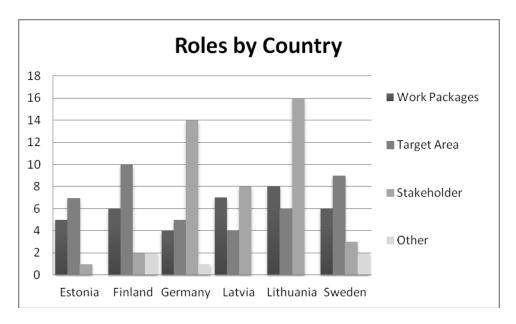


Figure 26: Roles in the project by country

Figure 26 shows what roles the respondents have in the BalticClimate project. Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number people directly involved in work packages is more or less the same throughout countries, changing up to two persons from the average of six.









Figure 27: Overall roles by gender

As seen in Figure 27 there is not huge inequality when it comes to gender distribution by roles. Still it is visible that there are 12 more women involved in work packages, 7 more men in target areas and 4 more male stakeholders.

## **Country specific overview of perceptions**

2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

Figure 28 combines a bar graph that shows specific country's perception with a line to project overall opinions today and in 20 years.







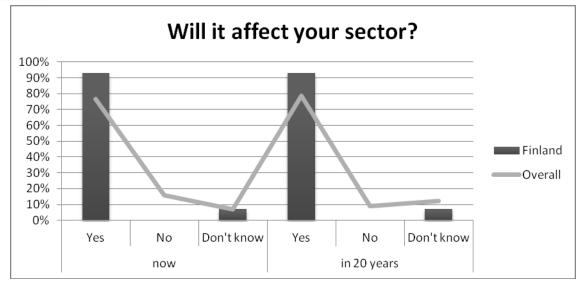


Figure 28: Finland's respondents' perceptions on the impacts of climate change in comparison with the overall.

Figure 28 shows that Finnish respondents are convinced that climate change will change their sectors now and in 20 years as 93% of respondents replied "yes" to both. It is high above the overall respondent's level of 77% (now) and 79% (in 20 years). No one from Finland believed that climate change is not affecting their sector. Overall perception is slightly different as at least some feel there will not be any change (16% now and 5% in 20 years).

#### How?

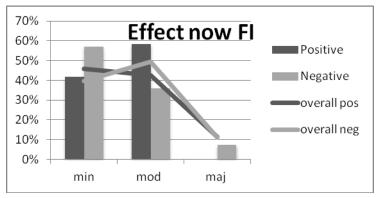


Figure 29: Finnish TA perceptions of the nature of impacts today in comparison to the overall.

Figure 29 has three categories for assessing the severity of effects: minor, moderate and major. Finnish respondents don't believe climate change will impose major effects on TA, neither positive (0%) nor negative (7%). Instead they feel that positive effect will be mainly moderate (58%) and negative minor (57%). Overall pattern is slightly different giving more room to moderate negative effects (49%) and less to positive 43%.







### And in 20 years?

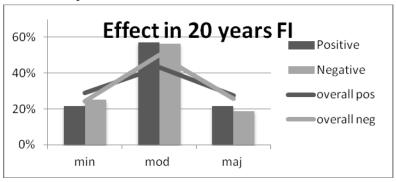


Figure 30: Finnish TA perceptions of the nature of impacts in 20 years in comparison to the overall.

Finnish perception follows the overall with a slight difference in stressing more moderate changes than minor and major. However both positive and negative effects are perceived to occur in 20 years with 57% and 56% of respondents believing in them respectively, Figure 30.







# 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 31 and Figure 32 show perceptions of Finnish respondents on temperature and precipitation change in 20 years. The first group, total, describes the nature of change which is followed by seasonal division. There is strong consensus that future temperatures will be higher and mainly during winter.

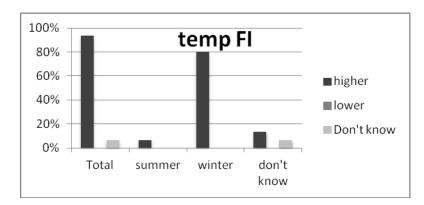


Figure 31: Finnish TA perceptions of temperature change

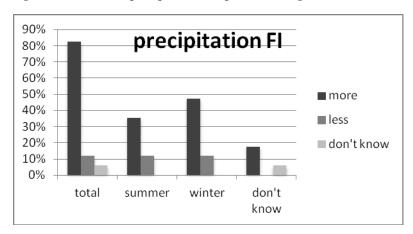


Figure 32: Finnish TA's perception of precipitation change

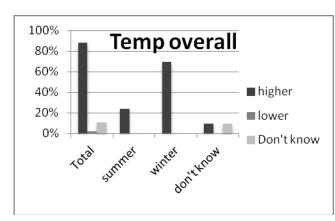
Figure 32 explains perceptions on precipitation change. There too is a wide belief in increase (82%) but should it occur mainly during summer or winter is yet uncertain. Opinions tend to move towards winter (47% versus 35% in summer).







### **Overall perception for comparison:**



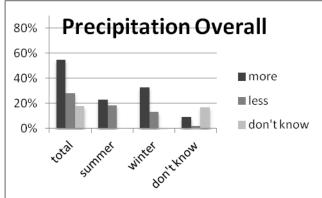


Figure 34: Overall perceptions on temperature change

Figure 33: Overall perceptions of precipitation change

Figure 34 and Figure 33 provide a comparison with the overall respondents' perception. The temperature graph highly resembles the Finnish one but the precipitation graphs are more diverse. 28% believed in less coming precipitation (comparing to 12% of Finnish respondents) but similarly there is no strong consensus on seasonal distribution.

# 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The next following graphs, Figure 35 and Figure 36, show how specific sectors will be affected. Negative effects are projected on negative scale, positive, unchanged and don't know on positive.







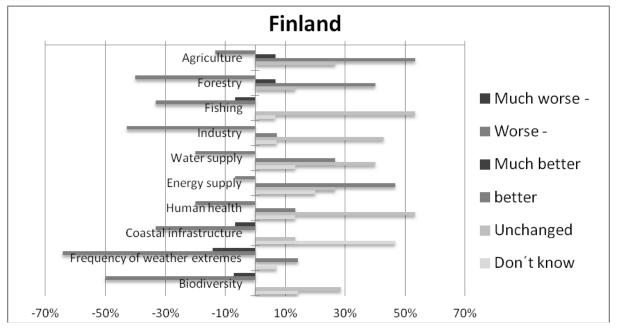


Figure 35: Finnish TA perceptions of changes in sectors and activities due to climate change

Figure 35 shows that Finnish respondents are optimistic in many sectors – agriculture, forestry and energy supply sectors are believed to get better with some help from climate change. Agriculture is believed to get much better by 7% and better by 53% of Finnish respondents, forestry much better by 7% and better by 40% and energy supply better by 47%. They are believed to get worse by 13%, 40% and 7% respectively. Despite the slight breeze of optimism it is believed that biodiversity and fishing sectors will suffer (biodiversity will be much worse off by 7% of Finnish respondents and worse by 50% and fishing much worse by 7% and worse by 33%) and weather extremes will occur more often (believed to get much worse by 14% and worse by 64% of Finnish respondents. No one believes in any positive change for weather extremes and biodiversity and only 14% believe it for fishing sector.

### **Overall perception for comparison:**

Overall the perceptions are predicting worse future for biodiversity and frequency of weather extremes. Nevertheless there is more hope in energy supply, water supply and industry. 32% believe the situation for energy supply will be better and 2% say much better (at the same time only 21% say worse and 1% much worse), 14% better and 1% much better for industry (against 15% worse and 1% much worse) and 12% better and 1% much better for water supply (against 37% worse and 2% much worse). Despite the somewhat optimistic or balancing figures, future of activities is believed to worsen according to the overall respondents.







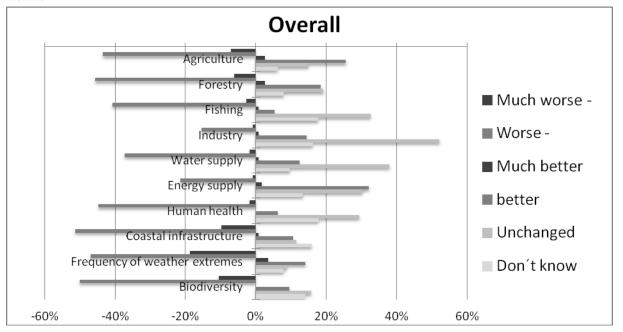


Figure 36: Overall perceptions of changes in sectors and activities due to climate change

2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

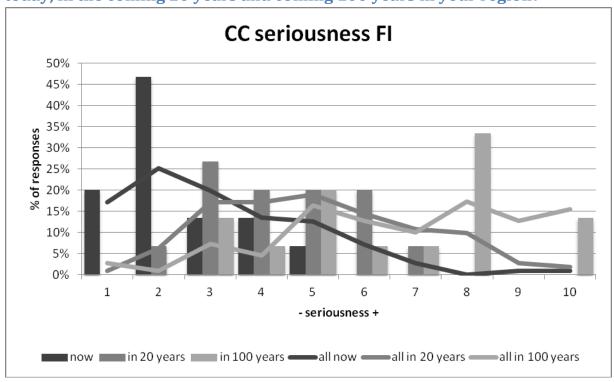


Figure 37: Seriousness of climate change today, in 20 years and in 100 years as is perceived by everyone and respondents from Finnish TA.

Figure 37 explains how serious issue climate change is believed to be. The seriousness scale on the graphs increases from left to right with 1 being the least serious and 10 the most. 20% of Finnish respondents rate today's seriousness with 1 and 47% with 2. Seriousness of







20 years perspective peaks around 4 & 5 whereas in 100 years it is believed to cause some stir. 33% of respondents say it is a severe problem giving it an '8' and 13% a full 10.







### 3a. Is your organisation currently working actively with climate change?

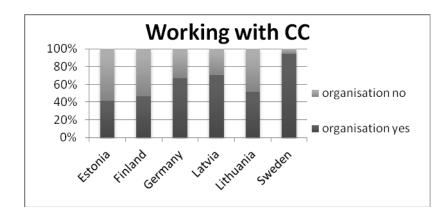


Figure 38: Are organisations of respondents working with climate change?

Figure 38 explains if the organisations of respondents are already actively working with climate change. Swedish respondents are clearly leading the way here (94% saying yes) with Latvian and German respondents following with 71% and 67% respectively answering yes. Estonian, Finnish and Lithuanian respondents are showing somewhat smaller activity with Estonian organisations being most inactive in working with climate change and 58% answering "no".

### 3b. Does your present position include issues related to climate change?

When it comes to working with climate change in personal position, Figure 39 shows different results. Swedish respondents still are still working the most with climate change (94% "yes") but Finnish respondents come in close on second place (87% "yes"). Instead of Estonian respondents being less involved, Latvian and Lithuanian respondents showed bigger inactivity with climate change in the respondents' present position (67% and 68% saying "no" respectively). Also German respondents' involvement shows a decline to 52% answering "yes". More Estonian respondents worked personally with climate change (50%) than they know that of their organisation.







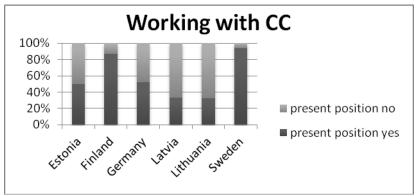


Figure 39: Does present position of the respondents include work related to climate change?

# 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 40 and Figure 41 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all useful/reliable and 5 very useful/reliable. The results are as follows:

The most useful and also reliable source of information was considered by Finnish respondents to be scientific reports. Also internet and scenarios were seen as useful but when it came to reliability, internet didn't show as good result anymore. It was considered to be rather unreliable with only 23% respondents grading it with 4 and the rest below that. Alongside with Internet local researchers and training courses were considered to be among the least reliable information sources. Local officials on the other hand were considered rather reliable as were scenarios.







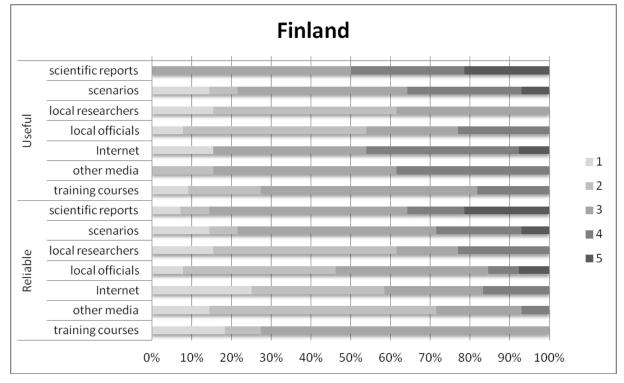


Figure 40: Usefulness and reliability of information sources according to Finnish TA's answers.

## **Overall perception for comparison:**

The overall respondent considered the most useful sources to be: research/scientific reports, scenarios, internet and training courses whereas media, local officials and local researches were not seen as useful. High reliability was omitted to research/scientific reports and scenarios while the least reliable were media, internet and local officials. Also despite a high notion of usefulness of training courses they were not considered to be very reliable.







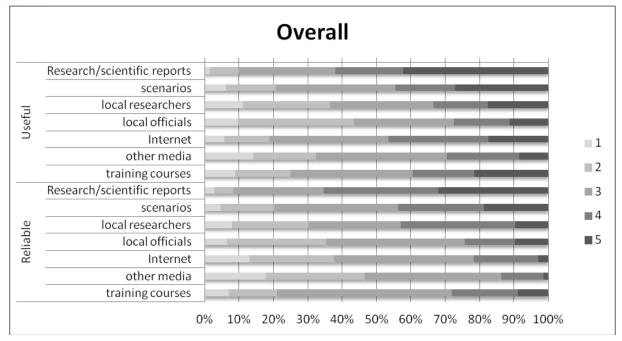


Figure 41: Usefulness and reliability of information sources according to everyone's answers.

### 3e. Personally, do you think that you are well informed or not about ....

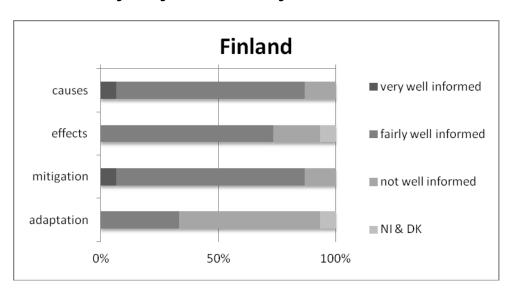


Figure 42: Shows how well are Finnish respondents informed about causes, effects, mitigation and adaptation of climate change.

Figure 42 explains how well are the respondents informed about causes and effects of climate change, its mitigation and how to adapt to new situation. It is fairly clear that most of the Finnish respondents are well informed about causes and therefore about mitigation of climate change with only 13% answering 'not well informed' on both. Effects are slightly less clear and it can be said that there lies a vast gap in informing people about the adaptation to climate change as a whole 60% of respondents claimed they were 'not well informed'.







### **Overall perception for comparison:**

Overall, Figure 43, it can be said that people are informed about the causes and effects of climate change and ways how to mitigate it, although there still is a gap with 22% of respondents not being well informed about the causes and 32% about the effects and mitigation. The situation is not as bright when it comes to climate adaptation. Only 7% of respondents are very well informed whereas 52% are not.

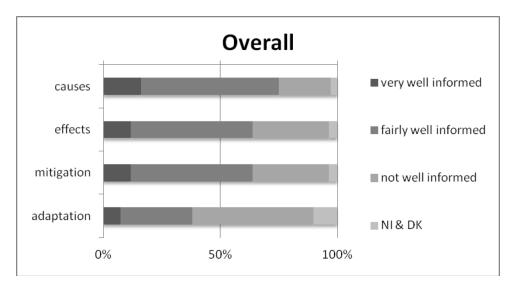


Figure 43: Shows how well are all respondents informed about causes, effects, mitigation and adaptation of climate change.

### 4d. What effects are you expecting from BalticClimate?

When it comes to expectations from the whole project, Finnish respondents don't differ much from the rest, Figure 44. However there are some clear distinctions. Greater awareness is most anticipated and is closely followed by influencing decisions. Not as much as the overall respondents are Finnish respondents hoping to gain new contacts with only 16% claiming that against 22% from overall. Also neither political support nor personal skills were the key elements Finns went for the BalticClimate project.

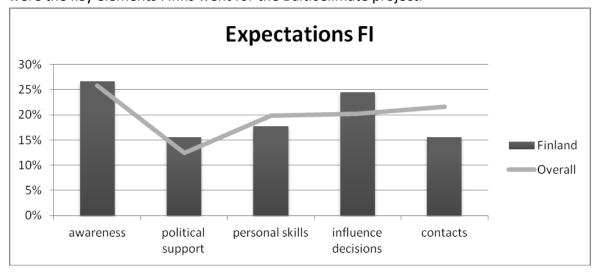


Figure 44: Finnish and overall expectations from the project.  $\boldsymbol{.}$ 







# "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix D - Questionnaire Results First Round, Latvian Target Area

June 7 2010

Author:

Markus Vihma, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







## **Summary**

This document provides an overview of responses given to the questionnaire sent out in spring 2009. It consists of two parts: General characteristics of all respondents and country specific overview of perceptions.

Out of 78 questionnaires sent out to Latvian partners, 17 people responded, which contributes 15% to the overall response stock within the project (Table 5). Most of them were identified as 'stakeholders' or people involved in the work packages (Figure 48).

Latvian respondents feel on average similarly to overall respondents that climate change is already affecting their sectors now and will do so in 20 years (Figure 52). Temperature is expected to rise and mainly in winter but when it comes to precipitation, people have opposing views (Figure 53 and Figure 54). Almost every sector is predicted to suffer from climate change except for industry, water supply and energy supply (Figure 57).

Currently a third (33%) of respondents (Figure 61) and 71% of their organisations (Figure 60) work with climate change. It stands out that Latvian respondents are not well informed about different aspects of climate change (Figure 64). They know the most about what causes it but even here no one consider themselves to be very well informed. When it comes to adaptation to climate change, a severe gap lies in knowledge (Figure 64). It may become a problem when trying to fulfil the main expectation from the project which is raising awareness (Figure 66). Establishing new contacts and developing personal skills are also seen by Latvian respondents as favoured outcomes of the BalticClimate project.







# Latvia

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# General characteristics of all respondents

Figure 45 and Table 5 describe how many responses were received from each TA. Response rates shown in Table 5 declare that the number of questionnaires sent out varies by country and therefore has affected the number of responses received. This has to be kept in mind when looking at graphs with overall perceptions because, for example, as Estonia contributed 10% of total responses and Lithuania 27%, the latter has more influence over end-results from a country's perspective. This way weight of individual answers was not diminished

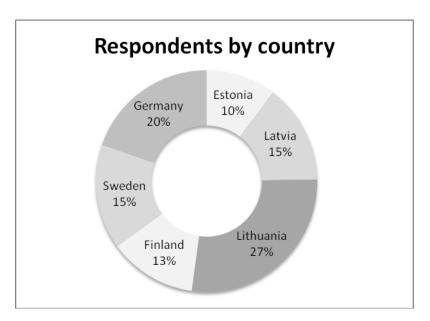


Figure 45: Percentage of total respondents by country

Table 5: Response rates by country and total.

| Country | Distributed | Responses |     |            |
|---------|-------------|-----------|-----|------------|
|         | No.         | No.       | %   | % of total |
|         |             |           |     | BSr        |
| Estonia | 32          | 12        | 38% | 10%        |
| Finland | 32          | 15        | 47% | 13%        |
| Germany | 75          | 23        | 31% | 20%        |
| Latvia  | 78          | 17        | 22% | 15%        |







| Lithuania | 38  | 32  | 84% | 27%  |
|-----------|-----|-----|-----|------|
| Sweden    | 107 | 18  | 17% | 15%  |
| Total     | 362 | 117 | 32% | 100% |

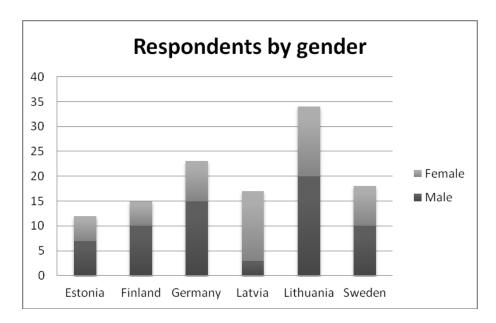


Figure 46: Total respondents by gender

Figure 46 describes gender division differences in participating countries. All had slightly more male respondents whereas Latvia as an exception had a strong female presence.

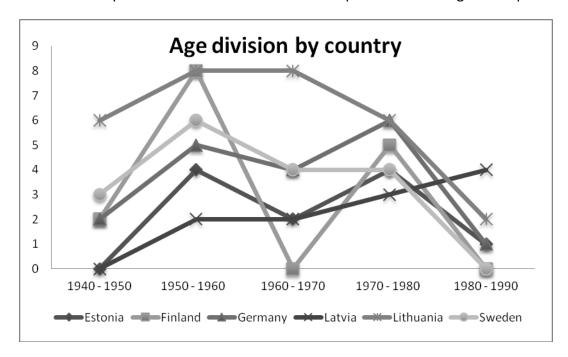


Figure 47: Age division by country

The graph explaining age division by country Figure 47 is in absolute terms therefore it reflects the varying number of respondents. The exact value of points is less important than







the shape of the lines. It must be noted that a Lithuanian born in 1937 was counted in the group of 1940 - 1950 and another decade was not added for one entity. The most numerous age groups are 1950-1960 and 1970-1980.

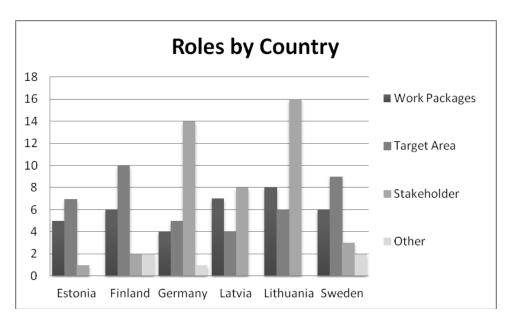


Figure 48: Roles in the project by country

Figure 48 shows what roles the respondents have in the BalticClimate project. Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number people directly involved in work packages is more or less the same throughout countries, changing up to two persons from the average of six.









Figure 49: Overall roles by gender

As seen on Figure 49 there is not huge inequality when it comes to gender distribution by roles. Still it is visible that there are 12 more women involved in work packages, 7 more men in target areas and 4 more male stakeholders.

# Country specific overview of perceptions

2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

It can be said that Latvian respondents feel the same as the overall BalticClimate project participants when it comes to consequences of climate change, Figure 50. Majority (82%) believes climate change is affecting their sector now. A smaller majority (75%) believe it will be true for 20 years from now as well. The only difference is that every Latvian respondent have an opinion on today's events and no one replied 'don't know'.







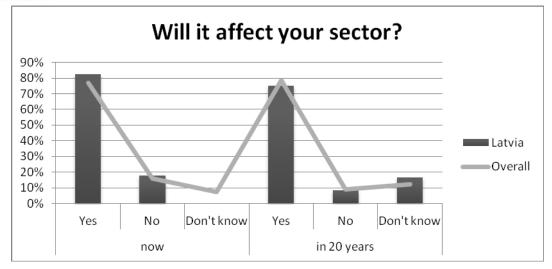


Figure 50: Latvian respondents' perceptions on the impacts of climate change in comparison with the overall.

### How?

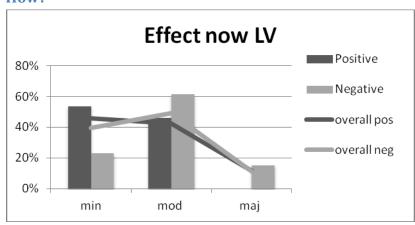


Figure 51: TA perceptions of the nature of impacts today in comparison to the overall.

Figure 51 has three categories for assessing the severity of effects: minor, moderate and major. A slight negativity prevails when it comes to the nature of effects. The majority of Latvian respondents believe in moderate negative effects (62%) and no one believes in major positive, they tend to believe in minor positive instead (54%).







### And in 20 years?

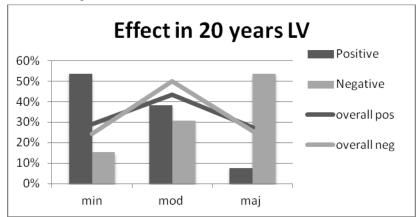


Figure 52: TA perceptions of the nature of impacts in 20 years in comparison to the overall.

The negativity is rocketing when it comes to 20 year predictions, Figure 52. Majority of Latvian respondents (54%) believe in major negative effects and only 8% in positive. That is notably more pessimistic than the overall respondents' perception of project participants.

# 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 53 and Figure 54show perceptions of Latvian respondents on temperature and precipitation change in 20 years. The first column, total, describes the nature of change which is followed by seasonal division

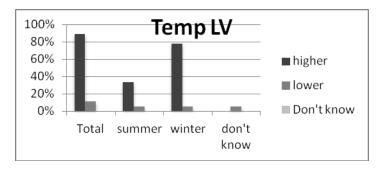


Figure 53: TA perceptions of temperature change

As Figure 53 describes temperatures are expected to increase by 89% of respondents and it is expected to take place mostly during the winter. Also increase in precipitation (Figure 54) is expected but by less people (50%) and it applies mainly to winter. 38% expect less precipitation, both in summer and winter.







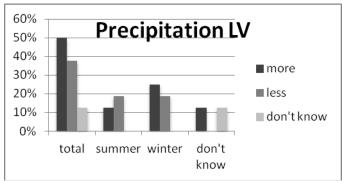
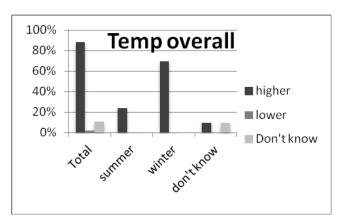


Figure 54: TA's perception of precipitation change

### **Overall perception for comparison:**



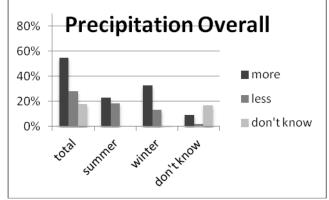


Figure 55: Overall perceptions on temperature change

Figure 56: Overall perceptions of precipitation change

When comparing Latvian respondents' perceptions (Figure 53 and Figure 54) with the overall respondents' perceptions (Figure 55 and Figure 56) there is not a great difference to be found. The overall respondents expect slightly more precipitation during summer but that is all.

# 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The next following graphs, Figure 57 and Figure 58, show how specific sectors will be affected. Negative effects are projected on negative scale, positive effects, unchanged and don't know on positive scale.

Latvian respondents feel that the sectors that will be worst off are agriculture (65% saying worse and 12% much worse), coastal infrastructure (59% saying worse and 18% much worse) and there will be worse (53%) or much worse (18%) weather extremes. Most positively is seen future energy supply with 35% anticipating better situation, 6% much better and only 29% worse. Industry, water supply and fishing sectors are predicted to stay more or less the same.







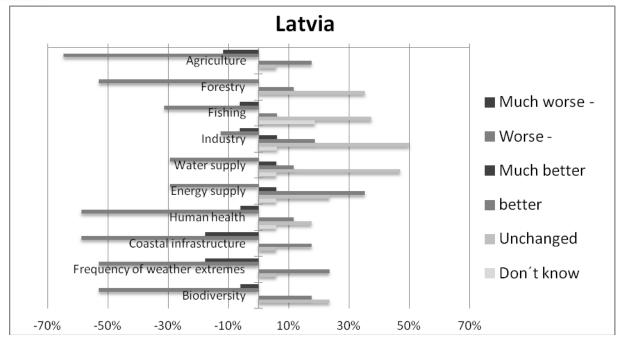


Figure 57: TA perceptions of changes in sectors and activities due to climate change

### **Overall perception for comparison:**

Overall the perceptions are predicting worse future for biodiversity and frequency of weather extremes. Nevertheless there is more hope in energy supply, water supply and industry. 32% of the overall respondents believe the situation for energy supply will be better and 2% say much better (at the same time only 21% say worse and 1% much worse), 14% better and 1% much better for industry (against 15% worse and 1% much worse) and 12% better and 1% much better for water supply (against 37% worse and 2% much worse). Despite the somewhat optimistic or balancing figures, future of activities is believed to worsen according to the overall respondents.







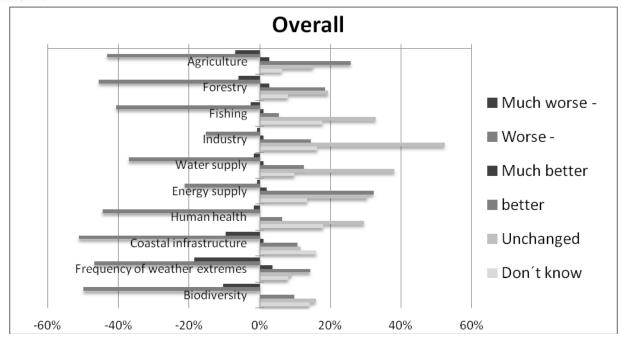


Figure 58: Overall perceptions of changes in sectors and activities due to climate change

# 2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

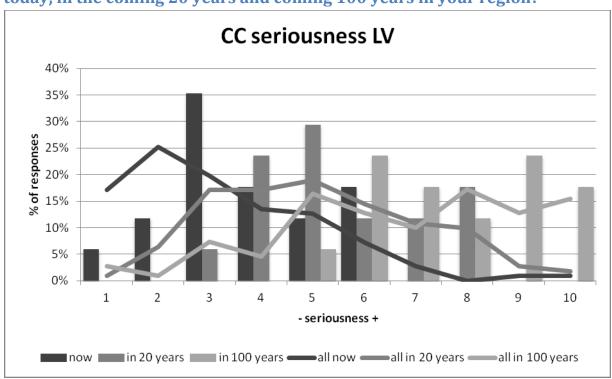


Figure 59: Seriousness of climate change today, in 20 years and in 100 years as is perceived by everyone and respondents from Latvian TA.

Figure 59 explains how serious issue climate change is believed to be. The seriousness scale on the graphs increases from left to right with 1 being the least serious and 10 the most.







The seriousness levels today and in 20 years are believed to be more or less the same as do the overall project respondents believe. A difference lies in 100 years perspective where Latvian respondents see the future in much grimmer colours as all their responses grouped in the far right end of the scale beyond 6. The overall respondents' perceptions were more evenly distributed.

## 3a. Is your organisation currently working actively with climate change?

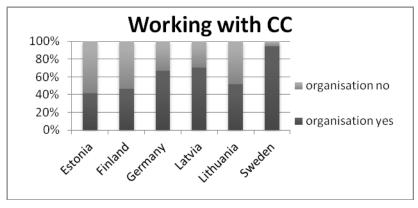
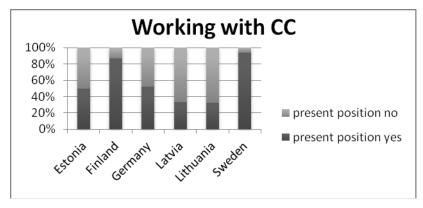


Figure 60: Are organisations of respondents working with climate change?

Figure 60 explains if the organisations of respondents are already actively working with climate change. Swedish respondents are clearly leading the way here (94% saying yes) with Latvian and German respondents following with 71% and 67% respectively answering yes. Estonian, Finnish and Lithuanian respondents are showing somewhat smaller activity with Estonian organisations being most inactive in working with climate change and 58% answering "no".

# 3b. Does your present position include issues related to climate change?

When it comes to working with climate change in personal position, Figure 61 shows different results. Swedish respondents still are still working the most with climate change (94% "yes") but Finnish respondents come in close on second place (87% "yes"). Instead of









Estonian respondents being less involved, Latvian and Lithuanian respondents showed bigger inactivity with climate change in the respondents' present position (67% and 68% saying "no" respectively). Also German respondents' involvement shows a decline to 52% answering "yes". More Estonian respondents worked personally with climate change (50%) than they know that of their organisation.

# 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 62 and Figure 63depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all useful/reliable and 5 very useful/reliable. The results are as follows:

Figure 61: Does present position of the respondents include work related to climate change?

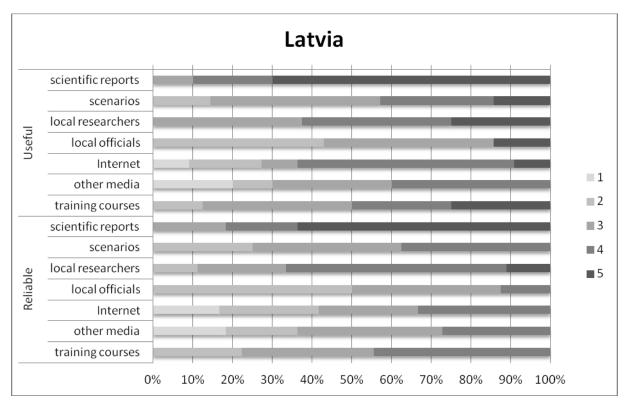


Figure 62: Usefulness and reliability of information sources according to TA's answers.

Latvian respondents have great confidence in scientific results. They found them highly useful and reliable. They found local researchers and training courses useful as well but a little less. They were seen as more reliable than the rest sources but not nearly as much as







scientific reports. The least useful sources were believed to be local officials, internet and other media. Neither were they seen as too reliable.

### **Overall perception for comparison:**

The overall respondent considered the most useful sources to be: research/scientific reports, scenarios, internet and training courses whereas media, local officials and local researches were not seen as useful. High reliability was omitted to research/scientific reports and scenarios while the least reliable were media, internet and local officials. Also despite a high notion of usefulness of training courses they were not considered to be very reliable.

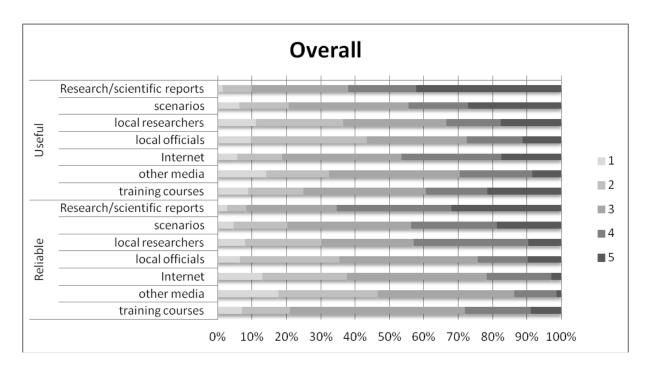


Figure 63: Usefulness and reliability of information sources according to everyone's answers.







## 3e. Personally, do you think that you are well informed or not about ....

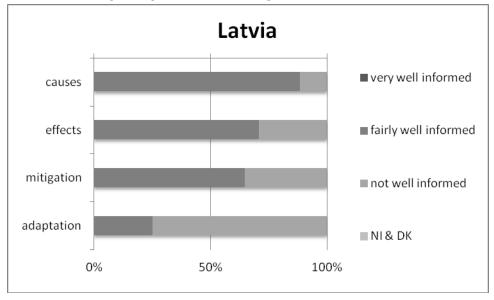


Figure 64: Shows how well are respondents informed about causes, effects, mitigation and adaptation of climate change.

Latvian respondents seem to be fairly well informed about the causes of climate change according to Figure 64. There are more of them left on the dark side about the effects and mitigation with 29% and 35% claiming to be not well informed respectively. A huge gap lies in knowledge about adaptation – a full 75% of Latvian respondents are 'not well informed'.

### **Overall perception for comparison:**

Overall it can be said that people are informed about the causes and effects of climate change and ways how to mitigate it, although there still is a gap with 22% of respondents not being well informed about the causes and 32% about the effects and mitigation, Figure 65. The situation is not as bright when it comes to climate adaptation. Only 7% of respondents are very well informed whereas 52% are not.







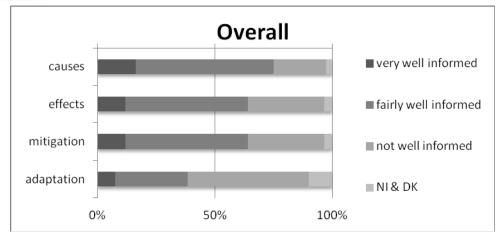


Figure 65: Shows how well are all respondents informed about causes, effects, mitigation and adaptation of climate change.







# 3d. What effects are you expecting from BalticClimate?

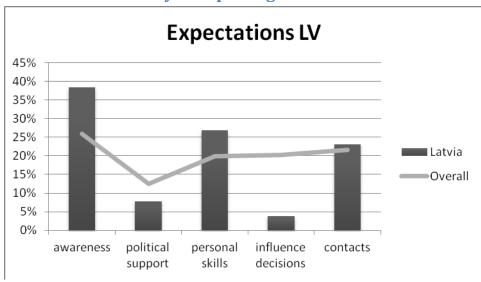


Figure 66: Latvian and overall expectations from the project.

According to Figure 66 it can be said that Latvian respondents are mainly expecting increased awareness (38%) as a result of BalticClimate project. Political support and influence on decision are hardly anticipated at all. Instead the Latvian respondents long for better personal skills and more contacts.







# "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix E - Questionnaire Results First Round, German Target Area

June 7 2010

Author:

Markus Vihma, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







## **Summary**

This document provides an overview of responses given to the questionnaire sent out in spring 2009. It consists of two parts: General characteristics of all respondents and country specific overview of perceptions.

Out of 75 questionnaires sent out to German partners, 23 people responded, which contributes 20% to the overall response stock within the project (Table 6). Most of German respondents were identified as 'stakeholders' and the numbers of people involved in the target area or work packages were almost equal (Figure 70).

German respondents are slightly more optimistic than the overall project respondent – many people do not believe that climate change has yet had an effect on their sector (35%) or will have in 20 years (18%) (Figure 72). They expect increasing temperatures mostly in winter but there is no consensus when it comes to precipitation – some expect more of them, some less (Figure 75 and Figure 76). Almost every sector is predicted to suffer from climate change and only some respondents predict better or the same future for coastal infrastructure, industry, energy supply and human health (Figure 79).

Currently 52% of respondents (Figure 83) and 67% of their organisations (Figure 82) work with climate change. It stands out that German respondents are not well-informed about different aspects of climate change (Figure 86). They know the most about what causes it but when it comes to effects of climate change and how to mitigate or adapt to it, a visible gap lies in knowledge. It may become a problem when trying to fulfil the main expectations from the BalticClimate project which are influencing decisions and rising awareness (Figure 88). Establishing new contacts was also perceived by German respondents as a favoured outcome of the BalticClimate project.







# **Germany**

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# General characteristics of all respondents

Figure 67 and Table 6 describe how many responses were received from each TA. Response rates shown in Figure 2 declare that the number of questionnaires sent out varies by country and therefore has affected the number of responses received. This has to be kept in mind when looking at graphs with overall perceptions because, for example, as Estonia contributed 10% of total responses and Lithuania 27%, the latter has more influence over end-results from a country's perspective. This way weight of individual answers was not diminished

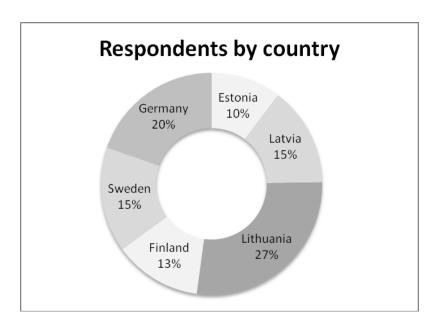


Figure 67: Percentage of total respondents by country

Table 6: Response rates by country and total.

| Country   | Distributed | Responses |     |            |
|-----------|-------------|-----------|-----|------------|
|           | No.         | No.       | %   | % of total |
|           |             |           |     | BSr        |
| Estonia   | 32          | 12        | 38% | 10%        |
| Finland   | 32          | 15        | 47% | 13%        |
| Germany   | 75          | 23        | 31% | 20%        |
| Latvia    | 78          | 17        | 22% | 15%        |
| Lithuania | 38          | 32        | 84% | 27%        |
| Sweden    | 107         | 18        | 17% | 15%        |







**Total** 362 117 32% 100%

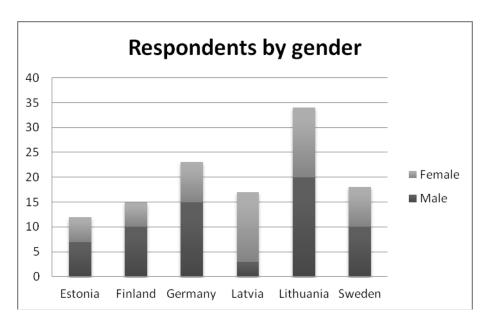


Figure 68: Total respondents by gender

Figure 68 describes gender division differences in participating countries. All had slightly more male respondents whereas Latvia as an exception had a strong female presence.

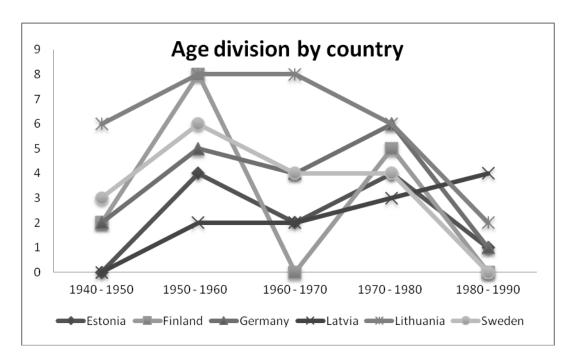


Figure 69: Age division by country

The graph explaining age division by country (Figure 69) is in absolute terms therefore it reflects the varying number of respondents. The exact value of points is less important than







the shape of the lines. It must be noted that a Lithuanian born in 1937 was counted in the group of 1940 - 1950 and another decade was not added for one entity. The most numerous age groups are 1950-1960 and 1970-1980.

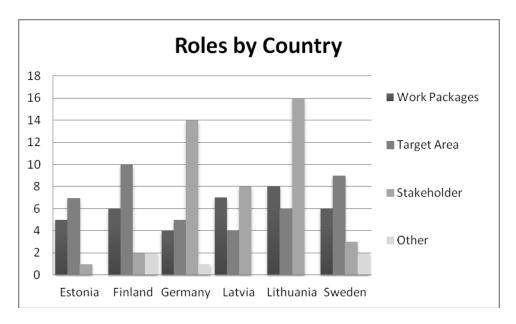


Figure 70: Roles in the project by country

Figure 70 shows what roles the respondents have in the BalticClimate project. Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number people directly involved in work packages is more or less the same throughout countries, changing up to two persons from the average of six.









Figure 71: Overall roles by gender

As seen on Figure 71 there is not huge inequality when it comes to gender distribution by roles. Still it is visible that there are 12 more women involved in work packages, 7 more men in target areas and 4 more male stakeholders.

# Country specific overview of perceptions

# 2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

Figure 72 combines a bar graph that shows specific country's perception with a line to project overall opinions today and in 20 years.

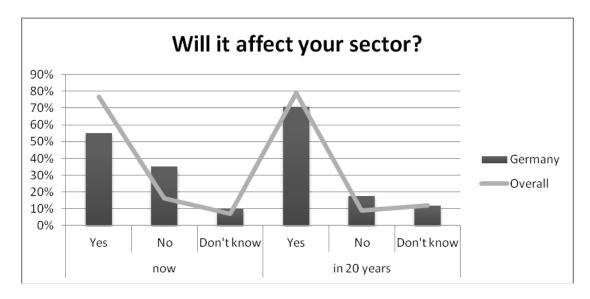


Figure 72: German respondents' perceptions on the impacts of climate change in comparison with the overall.







Figure 72 describes that although German respondents strongly believe in climate change affecting their sectors now (55%) and in 20 years (71%), more people do not believe in the effects happening now (35%) than the overall respondent (16%). Although this gap is smaller when it comes to 20 year perspectives (71% Germans saying 'yes' vs. 79% overall) it is still existent.

#### How?

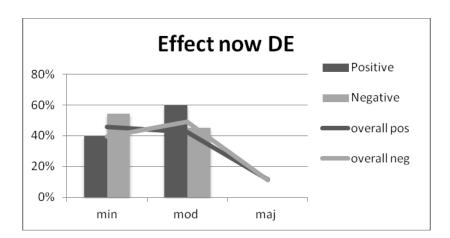


Figure 73: German TA perceptions of the nature of impacts today in comparison to the overall.

Figure 73 has three categories for assessing the severity of effects: minor, moderate and major. German respondents evidently do not believe in either positive or negative major changes at the moment whereas they see more moderate positive changes and more minor negative changes happening than overall respondents.

#### And in 20 years?

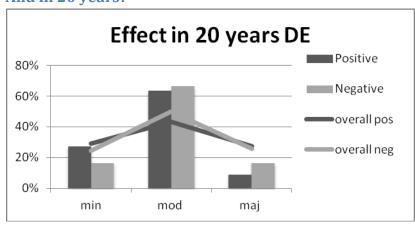


Figure 74: German TA perceptions of the nature of impacts in 20 years in comparison to the overall.

When it comes to 20 year perspective, Figure 74, more believe in major positive (9%) and negative (17%) changes but still less than overall respondents. This comes at the expense of strong belief in moderate changes with both positive and negative changes are expected by 64% and 67% respectively.







# 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 75 and Figure 76show perceptions of German respondents on temperature and precipitation change in 20 years. The first column, total, describes the nature of change which is followed by seasonal division. There is strong consensus that future temperatures will be higher and mainly during winter. Opinions are divided when it comes to precipitation. 36% are saying there will be more and the same amount of people expects less precipitation. 27% of them are clearly stating they just do not know. Although there is no strong consensus, it can be said that majority of respondents are expecting more precipitation during winter and less during summer.

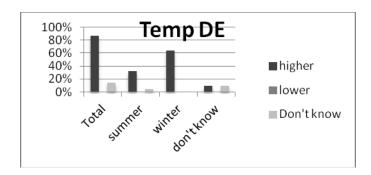


Figure 75: Finnish TA perceptions of temperature change

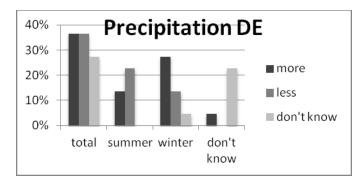


Figure 76: Finnish TA's perception of precipitation change

#### **Overall perception for comparison:**

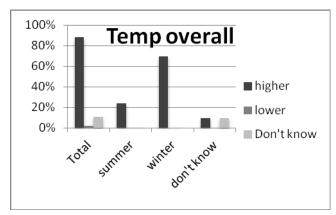


Figure 77: Overall perceptions on temperature change

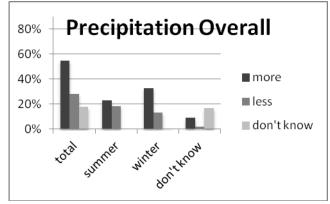


Figure 78: Overall perceptions of precipitation change







Figure 77 and Figure 78 provide a comparison with overall perception. The temperature graph highly resembles to the German one but the precipitation graph is different. The overall respondents expect more precipitation than the German respondents.

# 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The next following graphs, Figure 79 and Figure 80, show how specific sectors will be affected. Negative effects are projected on negative scale, positive effects, unchanged and don't know on positive scale.

German respondents are generally pessimistic when it comes to sectoral overview of future effects. It's visible that the best future is predicted to agriculture (25% saying better) and coastal infrastructure (11% saying better and 5% much better) but at the same time there are more respondents who believe the situation will worsen (45% for agriculture and for coastal infrastructure 37%) or gets much worse (10% and 11% respectively). Industry and energy supply are believed to stay more or less the same but forestry sector will greatly worsen along with weather extremes.

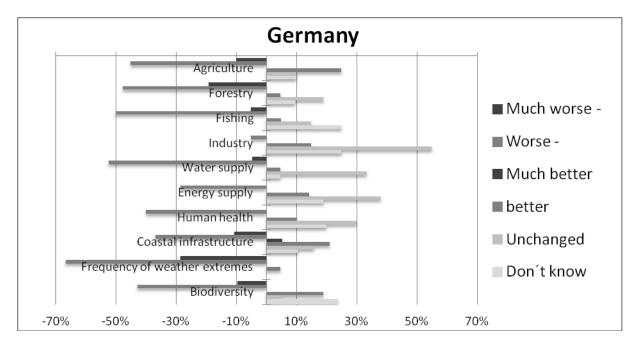


Figure 79: TA perceptions of changes in sectors and activities due to climate change

#### **Overall perception for comparison:**

Overall the perceptions are predicting worse future for biodiversity and frequency of weather extremes. Nevertheless there is more hope in energy supply, water supply and industry. 32% believe the situation for energy supply will be better and 2% say much better (at the same time only 21% say worse and 1% much worse), 14% better and 1% much better for industry (against 15% worse and 1% much worse) and 12% better and 1% much better for water supply (against 37% worse and 2% much worse). Despite the somewhat optimistic







or balancing figures, future of activities is believed to worsen according to the overall respondents.

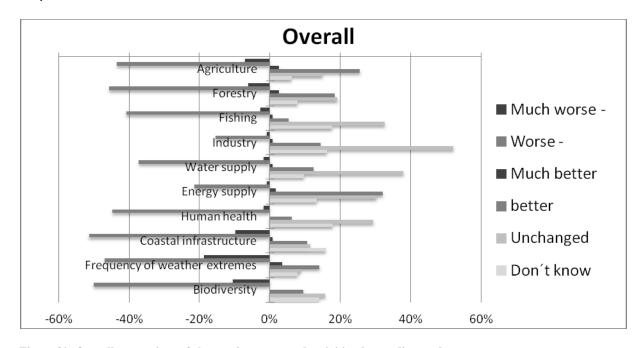


Figure 80: Overall perceptions of changes in sectors and activities due to climate change

2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

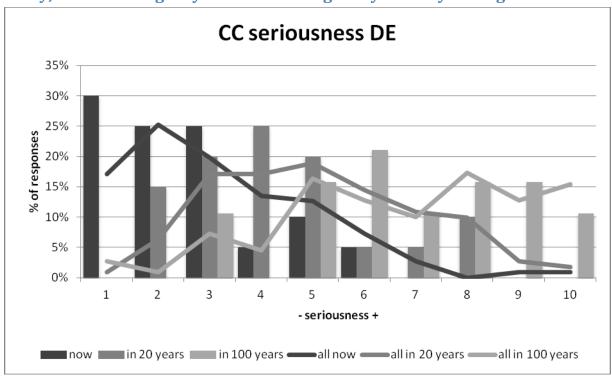


Figure 81: Seriousness of climate change today, in 20 years and in 100 years as is perceived by everyone and respondents from German TA.







Figure 81 explains how serious issue climate change is believed to be. The seriousness scale on the graphs increases from left to right with 1 being the least serious and 10 the most. German respondents' perceptions are quite in accordance with how the BalticClimate project participants answered overall but it can be said that all 3 timescales are seen slightly less serious by German respondents.

## 3a. Is your organisation currently working actively with climate change?

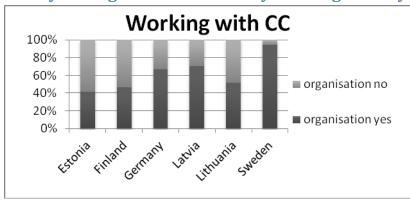


Figure 82: Are organisations of respondents working with climate change?

Figure 82 explains if the organisations of respondents are already actively working with climate change. Swedish respondents are clearly leading the way here (94% saying yes) with Latvian and German respondents following with 71% and 67% respectively answering yes. Estonian, Finnish and Lithuanian respondents are showing somewhat smaller activity with Estonian organisations being most inactive in working with climate change and 58% answering "no".

## 3b. Does your present position include issues related to climate change?

When it comes to working with climate change in personal position, Figure 83 shows different results. Swedish respondents still are still working the most with climate change (94% "yes") but Finnish respondents come in close on second place (87% "yes"). Instead of Estonian respondents being less involved, Latvian and Lithuanian respondents showed bigger inactivity with climate change in the respondents' present position (67% and 68% saying "no" respectively). Also German respondents' involvement shows a decline to 52% answering "yes". More Estonian respondents worked personally with climate change (50%) than they know that of their organisation.







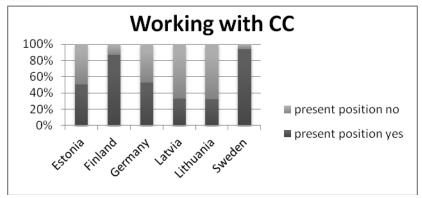


Figure 83: Does present position of the respondents include work related to climate change?

# 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 84 and Figure 85 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all useful/reliable and 5 very useful/reliable. The results are as follows:

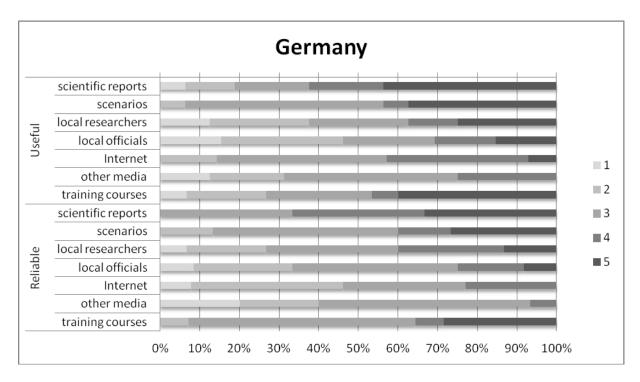


Figure 84: Usefulness and reliability of information sources according to TA's answers.

German respondents were generally quite positive about the usefulness of information sources rating scientific reports, scenarios and training courses the highest. Internet and other media were among the least useful of sources. When it came to reliability, "luckily" the usefulness and reliability were in accordance – scientific reports, scenarios and training







courses were also considered the most reliable. At the same time internet and other media continued to share the last places also in terms of reliability.

#### **Overall perception for comparison:**

The overall respondent considered the most useful sources to be: research/scientific reports, scenarios, internet and training courses whereas media, local officials and local researches were not seen as useful. High reliability was omitted to research/scientific reports and scenarios while the least reliable were media, internet and local officials. Also despite a high notion of usefulness of training courses they were not considered to be very reliable. All in all German respondents were much more positive about usefulness of information sources with more people giving them with maximum points than the overall respondents.

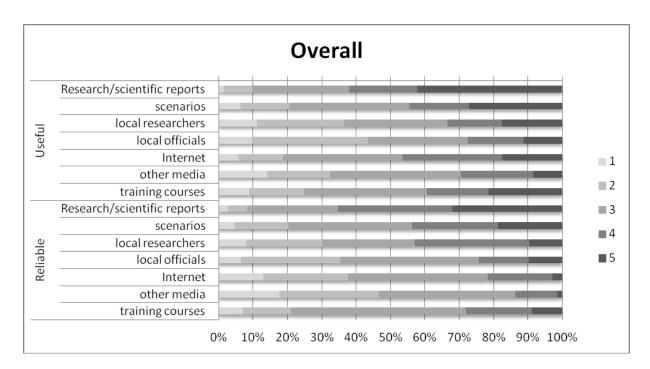


Figure 85: Usefulness and reliability of information sources according to everyone's answers







## 3e. Personally, do you think that you are well informed or not about ....

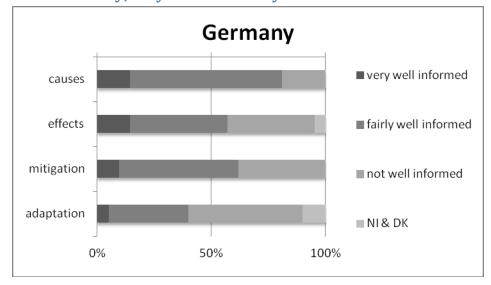


Figure 86: Shows how well are respondents informed about causes, effects, mitigation and adaptation of climate change.

German respondents are fairly well informed about the causes of climate change but twice as much people claimed to be 'not well informed' when it comes to effects (38%). Mitigation is understood in almost the same proportions but adaptation leaves quite a lot to wish for with exactly half of the respondents saying they are 'not well informed', Figure 86.

## Overall perception for comparison:

Overall, Figure 87, it can be said that people are informed about the causes and effects of climate change and ways how to mitigate it, although there still is a gap with 22% of respondents not being well informed about the causes and 32% about the effects and mitigation. The situation is not as bright when it comes to climate adaptation. Only 7% of respondents are very well informed whereas 52% are not.

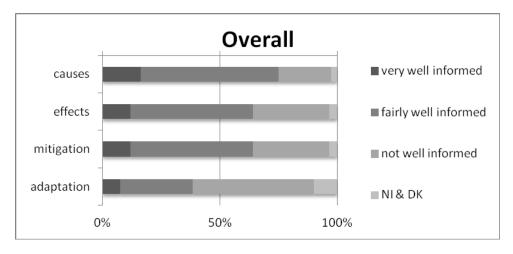


Figure 87: Shows how well are all respondents informed about causes, effects, mitigation and adaptation of climate change.







## 4d. What effects are you expecting from BalticClimate?

German respondents are expecting from the project more or less the same results as are the rest of their international partners in the BalticClimate project. It can be said though that awareness is slightly less important and establishing new contacts slightly more. As the fluctuation stays in 5%, it can hardly be said there are drastic differences, Figure 88.

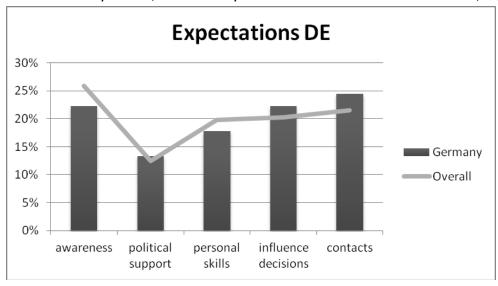


Figure 88: German and overall expectations from the project..







# "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix F - Questionnaire Results First Round, Lithuanian Target Area

June 7 2010

Author:

Markus Vihma, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







# **Summary**

This document provides an overview of responses given to the questionnaire sent out in spring 2009. It consists of two parts: General characteristics of all respondents and country specific overview of perceptions.

Out of 38 questionnaires sent out to Lithuanian partners, 32 people responded, which contributes 27% to the overall response stock within the project, Figure 89. Most of Lithuanian respondents were identified as 'stakeholders', the numbers of people involved in work packages and in target areas were similar (Figure 92).

Lithuanian respondents feel on average similarly to overall project respondent that climate change will affect their sectors both now and in 20 years (Figure 94). Temperature is expected to rise and mainly in winter but when it comes to precipitation, people have opposing views (Figure 97 and Figure 98). Mostly they expect less precipitation. The most vulnerable sectors are considered to be agriculture, forestry, coastal infrastructure and biodiversity (Figure 101). Industry, energy supply, water supply and human health are believed to remain the same or worsen just a bit. A great change is predicted to the frequency of extreme weather but there is no consensus on whether it will increase or decrease.

Currently 32% of Lithuanian respondents (Figure 105) and 52% of their organisations (Figure 104) work with climate change. They seem to be fairly well informed about climate change but they could use more information – about causes and effects, its mitigation and especially about how to adapt to it (Figure 108). This can become helpful for trying to fulfil the main expectation from the project which is raising awareness (Figure 110). Establishing new contacts and developing personal skills were other favoured outcomes of the BalticClimate project.







# Lithuania

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## General characteristics of all respondents

Figure 89 and Table 7 describe how many responses were received from each TA. Response rates shown in Table 7 declare that the number of questionnaires sent out varies by country and therefore has affected the number of responses received. This has to be kept in mind when looking at graphs with overall perceptions because, for example, as Estonia contributed 10% of total responses and Lithuania 27%, the latter has more influence over end-results from a country's perspective. This way weight of individual answers was not diminished

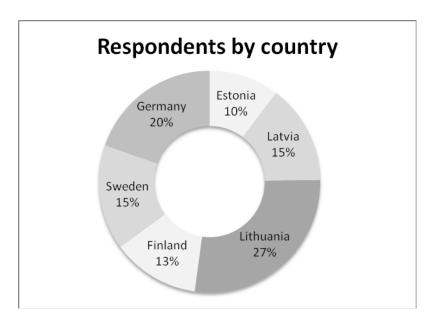


Figure 89: Percentage of total respondents by country

Table 7: Response rates by country and total.

| Country   | Distributed | Responses |     |            |
|-----------|-------------|-----------|-----|------------|
|           | No.         | No.       | %   | % of total |
|           |             |           |     | BSr        |
| Estonia   | 32          | 12        | 38% | 10%        |
| Finland   | 32          | 15        | 47% | 13%        |
| Germany   | 75          | 23        | 31% | 20%        |
| Latvia    | 78          | 17        | 22% | 15%        |
| Lithuania | 38          | 32        | 84% | 27%        |
| Sweden    | 107         | 18        | 17% | 15%        |
| Total     | 362         | 117       | 32% | 100%       |







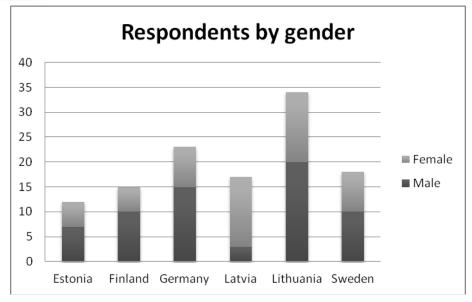


Figure 90: Total respondents by gender

Figure 90 describes gender division differences in participating countries. All had slightly more male respondents whereas Latvia as an exception had a strong female presence.

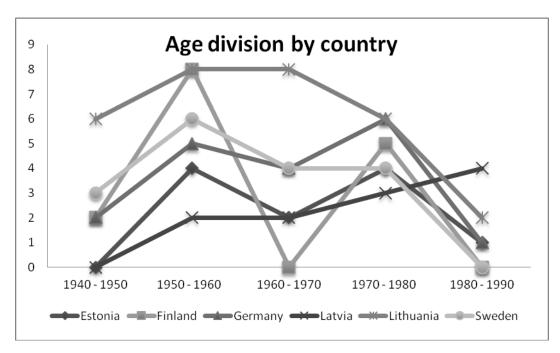


Figure 91: Age division by country

The graph explaining age division by country (Figure 91) is in absolute terms therefore it reflects the varying number of respondents. The exact value of points is less important than the shape of the lines. It must be noted that a Lithuanian born in 1937 was counted in the group of 1940 - 1950 and another decade was not added for one entity. The most numerous age groups are 1950-1960 and 1970-1980.







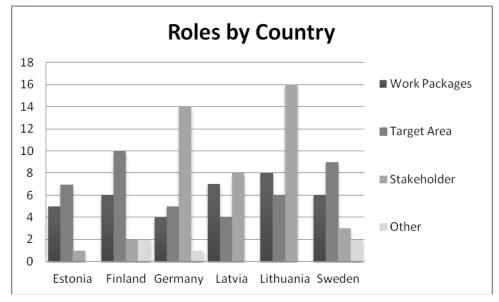


Figure 92: Roles in the project by country

Figure 92 shows what roles the respondents have in the BalticClimate project. Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number people directly involved in work packages is more or less the same throughout countries, changing up to two persons from the average of six.



Figure 93: Overall roles by gender

As seen on Figure 93 there is not huge inequality when it comes to gender distribution by roles. Still it is visible that there are 12 more women involved in work packages, 7 more men in target areas and 4 more male stakeholders.







# **Country specific overview of perceptions**

# 2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

Figure 94 explains that a strong majority of Lithuanian respondents believe that climate change is affecting their sector now (81%) and will do so in 20 years (79%). The percentage disagreeing is slightly smaller than the overall respondent on both occasions, 10% and 4% vs. overall 16% and 9% for now and 20 years respectively.

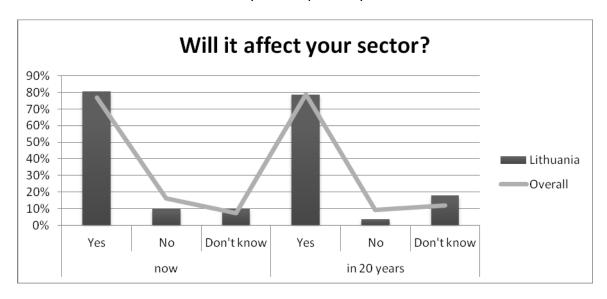


Figure 94: Lithuanian respondents' perceptions on the impacts of climate change in comparison with the overall.

#### How?

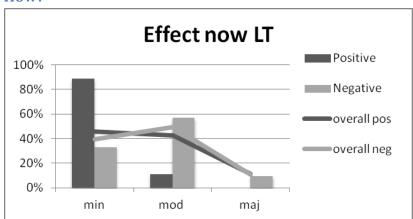


Figure 95: TA perceptions of the nature of impacts today in comparison to the overall.

Figure 95 has three categories for assessing the severity of effects: minor, moderate and major. From the Lithuanian respondents' answer a strong pattern comes visible as a strong majority (89%) feel there are minor positive effects happening now but 57% of them believe in moderate negative and 10% in major negative effects. The negative scale is similar to overall respondents' perceptions but positive is not as positive.







## And in 20 years?

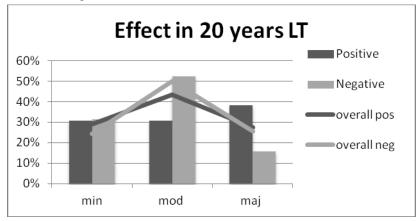


Figure 96: TA perceptions of the nature of impacts in 20 years in comparison to the overall.

Lithuanian respondents are more optimistic when it comes to 20 years predictions, Figure 96. They anticipate (38%) major positive effects and not so much negative (16%). Nevertheless 53% of respondents were certain of upcoming moderate negative effects which is similar to the overall respondents' opinion. Still quite a big portion (31%) feel there will be only minor positive effects.

# 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 97 and Figure 98 show perceptions of Lithuanian respondents on temperature and precipitation change in 20 years. The first column, total, describes the nature of change which is followed by seasonal division

Figure 97 explains that 83% of respondents are anticipating temperature rise and mainly during winter. The rest claim they just do not know what will happen. Figure 98 shows that half of the respondents are expecting less precipitation and 23% more, the rest do not know about that. The decline in precipitation is expected mainly to take place during summer but there is no strong consensus on that matter.

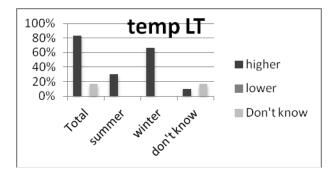


Figure 97: TA perceptions of temperature change







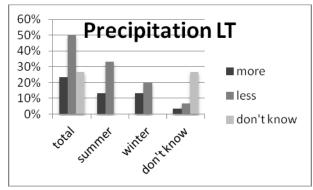


Figure 98: TA's perception of precipitation change

## **Overall perception for comparison:**

The next graphs (Figure 99 and Figure 100) provide a comparison with overall perception.

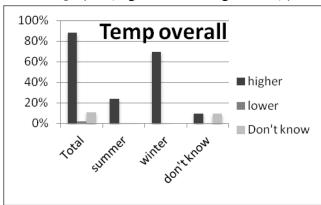
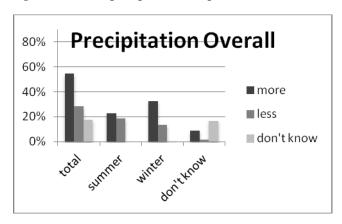


Figure 99: Overall perceptions on temperature



 ${\bf Figure~100:~Overall~perceptions~of~precipitation~change}$ 

The overall respondents expect the temperature change to occur similarly to the German respondents' expectations but expectations from precipitation are different. The overall respondents' opinion is that there will be more precipitation, mainly in winter. Lithuanian respondents feel the opposite.







# 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The next following graphs, Figure 101 and Figure 102, show how specific sectors will be affected. Negative effects are projected on negative scale, positive effects, unchanged and don't know on positive scale.

It can be said that Lithuanian respondents are most optimistic about frequency of weather extremes with 13% saying the situation will get much better and 29% better. Despite the relatively high positive grades, almost the same amount of people fear for worse (23%) or much worse (10%). Changes in biodiversity are seen as the greatest and the situation is predicted to get worse by 56% and much worse by 19% of respondents. Also coastal infrastructure and agriculture are predicted to be in a tight position with similar answer rates. At least industry sector is strongly believed to stay unchanged (61% of respondents believe it).

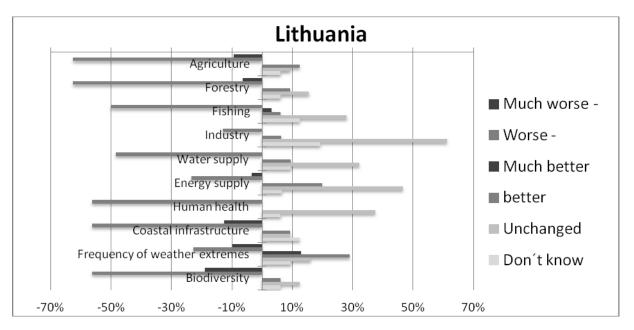


Figure 101: TA perceptions of changes in sectors and activities due to climate change

#### **Overall perception for comparison:**

Overall the perceptions are predicting worse future for biodiversity and frequency of weather extremes. Nevertheless there is more hope in energy supply, water supply and industry. 32% believe the situation for energy supply will be better and 2% say much better (at the same time only 21% say worse and 1% much worse), 14% better and 1% much better for industry (against 15% worse and 1% much worse) and 12% better and 1% much better for water supply (against 37% worse and 2% much worse). Despite the somewhat optimistic or balancing figures, future of activities is believed to worsen according to the overall respondents.







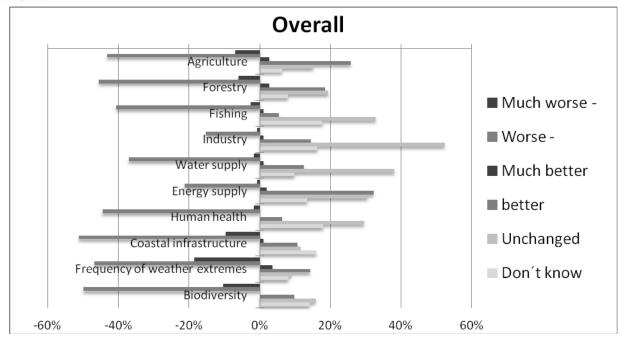


Figure 102: Overall perceptions of changes in sectors and activities due to climate change

# 2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

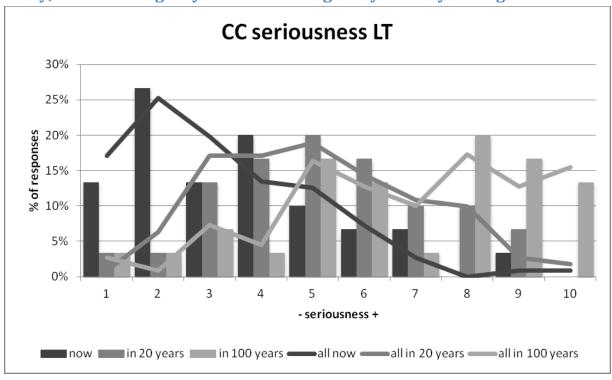


Figure 103: Seriousness of climate change today, in 20 years and in 100 years as is perceived by everyone and respondents from Lithuanian TA.

Figure 103 explains how serious issue climate change is believed to be. The seriousness scale on the graphs increases from left to right with 1 being the least serious and 10 the most.







Lithuanians respondents' answers correspond to the overall perceptions. Climate change is not considered now a very serious issue (seriousness median is around 3&4), in 20 years the median is approx. at 5 and in 100 years around 7 in the seriousness scale.

## 3a. Is your organisation currently working actively with climate change?

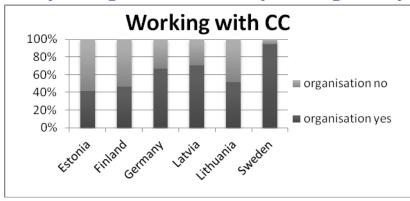


Figure 104: Are organisations of respondents working with climate change

Figure 104 explains if the organisations of respondents are already actively working with climate change. Swedish respondents are clearly leading the way here (94% saying yes) with Latvian and German respondents following with 71% and 67% respectively answering yes. Estonian, Finnish and Lithuanian respondents are showing somewhat smaller activity with Estonian organisations being most inactive in working with climate change and 58% answering "no".

## 3b. Does your present position include issues related to climate change?

When it comes to working with climate change in personal position, Figure 105 shows different results. Swedish respondents still are still working the most with climate change (94% "yes") but Finnish respondents come in close on second place (87% "yes"). Instead of Estonian respondents being less involved, Latvian and Lithuanian respondents showed bigger inactivity with climate change in the respondents' present position (67% and 68% saying "no" respectively). Also German respondents involvement shows a decline to 52% answering "yes". More Estonian respondents worked personally with climate change (50%) than they know that of their organisation.

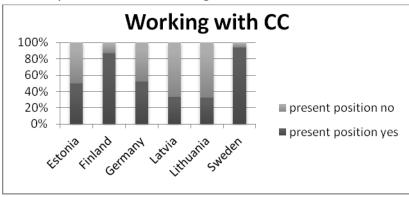


Figure 105: Does present position of the respondents include work related to climate change?







# 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 106 and Figure 107 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all useful/reliable and 5 very useful/reliable. The results are as follows:

Scientific reports were considered to be the most useful source of information with internet not leaving far behind. Also scenarios and training courses are quite useful to Lithuanian respondents. Other media was seen as the least useful. Scientific reports were also seen as the most reliable source of information alongside with training courses and scenarios. Not only that other media was seen not useful, it was also considered to be unreliable.

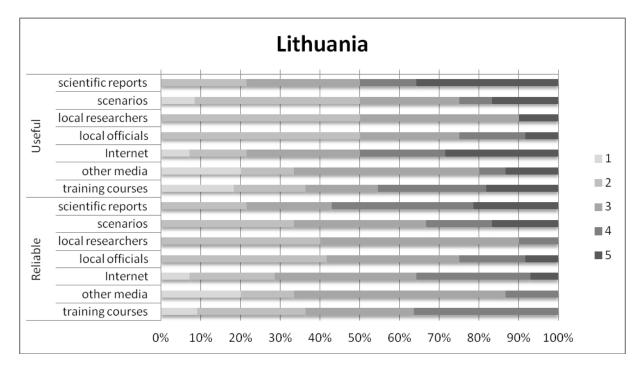


Figure 106: Usefulness and reliability of information sources according to TA's answers.

#### Overall perception for comparison:

The overall respondent considered the most useful sources to be: research/scientific reports, scenarios, internet and training courses whereas media, local officials and local researches were not seen as useful. High reliability was omitted to research/scientific reports and scenarios while the least reliable were media, internet and local officials. Also despite a high notion of usefulness of training courses they were not considered to be very reliable.







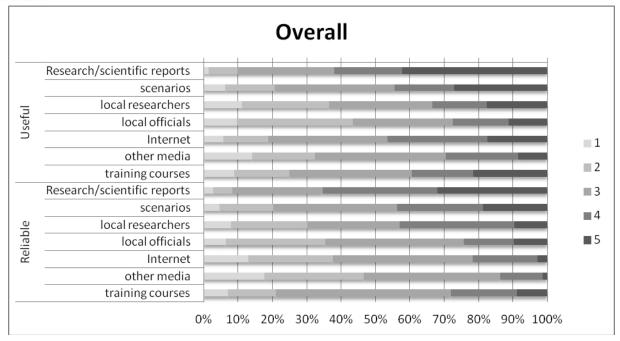


Figure 107: Usefulness and reliability of information sources according to everyone's answers.

## 3e. Personally, do you think that you are well informed or not about ....

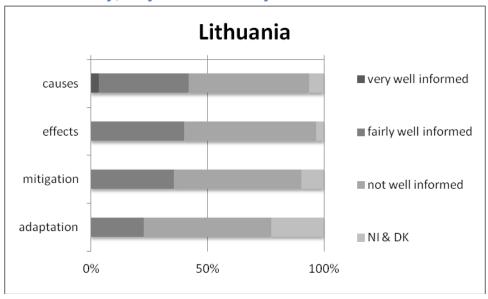


Figure 108: Shows how well are respondents informed about causes, effects, mitigation and adaptation of climate change.

Lithuanian respondents are not very well informed about anything that is described on Figure 108. They know the most about the causes of climate change but at the same time 52% of them claim to be not well informed about it. 55% say they are not well informed about adaptation together with 23% who claim to have no information at all or don't know exactly how to answer.







## **Overall perception for comparison:**

Overall it can be said that people are informed about the causes and effects of climate change and ways how to mitigate it, although there still is a gap with 22% of respondents not being well informed about the causes and 32% about the effects and mitigation, Figure 109. The situation is not as bright when it comes to climate adaptation. Only 7% of respondents are very well informed whereas 52% are not.

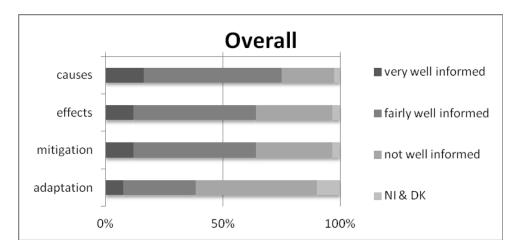


Figure 109: Shows how well are all respondents informed about causes, effects, mitigation and adaptation of climate change.

## 4d. What effects are you expecting from BalticClimate?

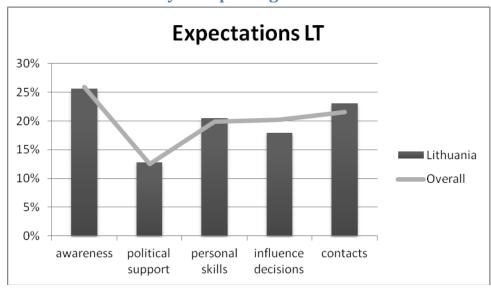
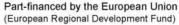


Figure 110: Lithuanian and overall expectations from the project.

As Figure 110 explains, Lithuanian respondents are mainly expecting greater awareness from the BalticClimate project. It was marked down by 26% of respondents. They are not that interested in gaining political support (13%). Lithuanian respondents are slightly more interested in obtaining new contacts and slightly less about influencing decisions than the overall respondents. All in all the perceptions are very similar.









# "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix G - Questionnaire Results First Round, Swedish Target Area

June 7 2010

Author:

Markus Vihma, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







# **Summary**

This document provides an overview of responses given to the questionnaire sent out in spring 2009. It consists of two parts: General characteristics of all respondents and country specific overview of perceptions.

Out of 107 questionnaires sent out to Swedish partners, 18 people responded, which contributes 15% to the overall response stock within the project (Figure 111). Most of Swedish respondents were involved in target areas or work packages, the rest were identified as 'stakeholders' or 'other' (Figure 114).

Swedish respondents feel on average slightly more pessimistic than the overall project respondent - almost everyone saying that climate change is affecting their sectors now and in 20 years (Figure 116). Both temperature and precipitation is expected to rise and mainly in winter (Figure 121 and Figure 122). The most vulnerable sectors are considered to be fishing, water supply, human health, biodiversity and coastal infrastructure and a severe change is expected in the frequency of weather extremes (Figure 123). However agriculture, forestry, energy supply and industry are believed to see better days.

Currently 94% of Swedish respondents (Figure 127) and also 94% of their organisations (Figure 126) work with climate change. They seem to be very well informed about climate change but they could use more information about the effect of climate change and how to adapt to it (Figure 130). This can become helpful for trying to fulfil the main expectation from the project which is raising awareness (Figure 132). Establishing new contacts and influencing decisions are also seen by Swedish respondents as favoured outcomes of the BalticClimate project.







# Sweden

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#### General characteristics of all respondents

Figure 111 and Table 8 describe how many responses were received from each TA. Response rates shown in Table 8 declare that the number of questionnaires sent out varies by country and therefore has affected the number of responses received. This has to be kept in mind when looking at graphs with overall perceptions because, for example, as Estonia contributed 10% of total responses and Lithuania 27%, the latter has more influence over end-results from a country's perspective. This way weight of individual answers was not diminished

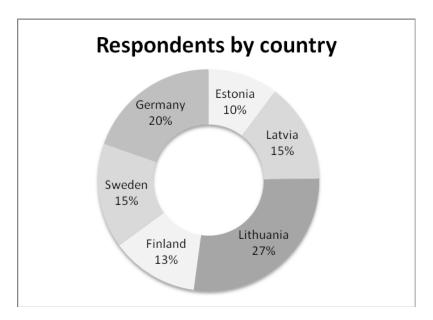


Figure 111: Percentage of total respondents by country

Table 8: Response rates by country and total.

| Country   | Distributed | Responses |     |            |
|-----------|-------------|-----------|-----|------------|
|           | No.         | No.       | %   | % of total |
|           |             |           |     | BSr        |
| Estonia   | 32          | 12        | 38% | 10%        |
| Finland   | 32          | 15        | 47% | 13%        |
| Germany   | 75          | 23        | 31% | 20%        |
| Latvia    | 78          | 17        | 22% | 15%        |
| Lithuania | 38          | 32        | 84% | 27%        |
| Sweden    | 107         | 18        | 17% | 15%        |
| Total     | 362         | 117       | 32% | 100%       |







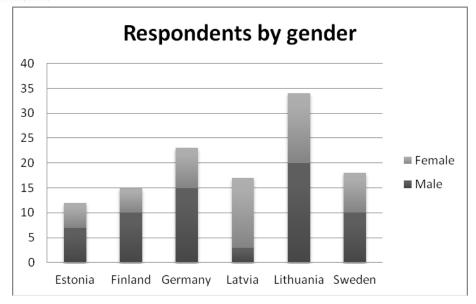


Figure 112: Total respondents by gender

Figure 112 describes gender division differences in participating countries. All had slightly more male respondents whereas Latvia as an exception had a strong female presence.

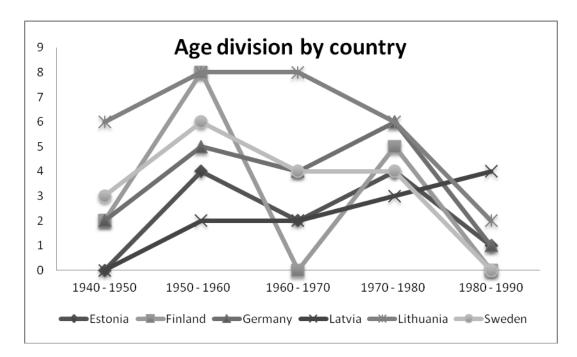


Figure 113: Age division by country

The graph explaining age division by country (Figure 113) is in absolute terms therefore it reflects the varying number of respondents. The exact value of points is less important than the shape of the lines. It must be noted that a Lithuanian born in 1937 was counted in the group of 1940 - 1950 and another decade was not added for one entity. The most numerous age groups are 1950-1960 and 1970-1980.







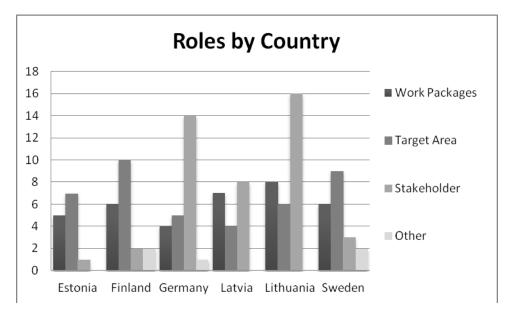


Figure 114: Roles in the project by country

Figure 114 shows what roles the respondents have in the BalticClimate project. Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number people directly involved in work packages is more or less the same throughout countries, changing up to two persons from the average of six.



Figure 115: Overall roles by gender







As seen on Figure 115 there is not huge inequality when it comes to gender distribution by roles. Still it is visible that there are 12 more women involved in work packages, 7 more men in target areas and 4 more male stakeholders.

#### Country specific overview of perceptions

## 2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

Figure 116 explains that Swedes strongly believe that climate change is affecting their sectors now (by 89% respondents) and will do so also in 20 years (by 88%). A minor fraction of respondents feel it will not affect but they are strongly outnumbered, even more in Sweden than the overall respondents within the BalticClimate project.

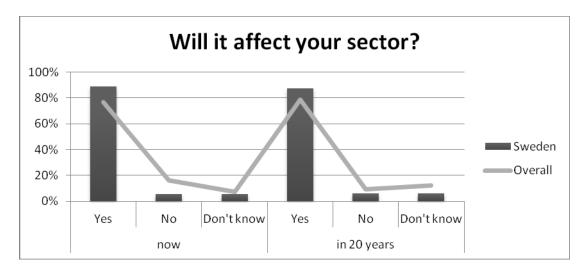


Figure 116: Swedish respondents' perceptions on the impacts of climate change in comparison with the overall.

#### How?

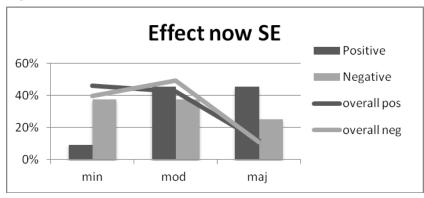


Figure 117: TA perceptions of the nature of impacts today in comparison to the overall.

Figure 117 has three categories for assessing the severity of effects: minor, moderate and major. Swedish respondents feel there are moderate (45%) or major (45%) positive effects already present. There are fewer people who believe in strong negative effects but still more than the overall respondents.







#### And in 20 years?

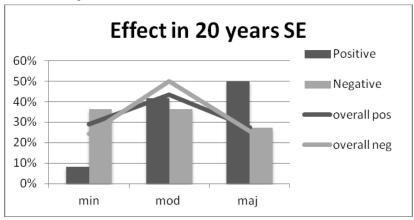


Figure 118: TA perceptions of the nature of impacts in 20 years in comparison to the overall.

Belief in major positive effects is higher (50%) when it comes to 20 year perspective, Figure 118. Levels of negative effect stay on the same as were on Figure 117 and it can be said that more Swedish respondents are expecting less negative effects than the overall respondents.

## 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 119 and Figure 120 show perceptions of Swedish respondents on temperature and precipitation change in 20 years. The first column, total, describes the nature of change which is followed by seasonal division

Figure 119 explains that 83% of respondents are anticipating temperature rise and mainly for winter (56%). The rest claim they just do not know what will happen. Figure 120 indicates that half of the respondents are expecting more precipitation. The increase in precipitation is expected mainly to take place in winter.

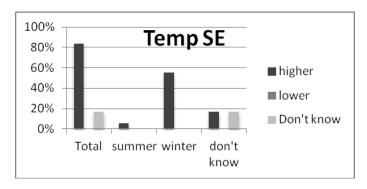


Figure 119: TA perceptions of temperature change







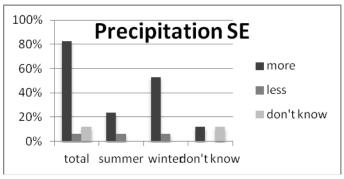


Figure 120: TA perceptions of precipitation change

#### Overall perception for comparison

The next graphs (Figure 121 and Figure 122) provide a comparison with overall perception.

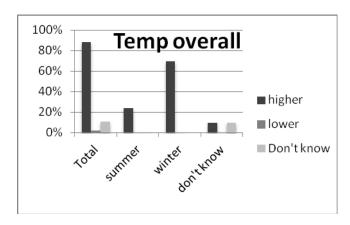


Figure 121: Overall perception on temperature change

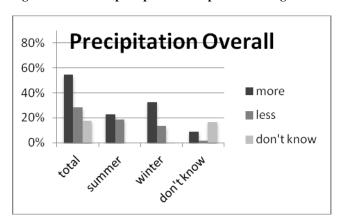


Figure 122: Overall perception on precipitation change.

The overall respondents expect the temperature change to occur similarly to the Swedish respondents expectations but expectations from precipitation are different. Swedish expect more precipitation to come than the overall respondents, of whom a considerable amount of people expect less precipitation.







#### 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The next following graphs, Figure 123 and Figure 124, show how specific sectors will be affected. Negative effects are projected on negative scale, positive effects, unchanged and don't know on positive scale.

Figure 123 explains that Swedish respondents are highly optimistic when it comes to energy supply. 6% of them expect the sector to get much better and 61% better. No one is predicting a grimmer future. On the other hand the frequency of weather extremes is expected to cause quite a stir. 17% of the Swedish respondents claim the situation gets much worse and 50% worse. Fortunately agriculture and forest sectors are seen to be profiting from climate change and they will turn out to be in a better (44% and 50% respectively) situation than before or even in much better (6% for both). Only 17% of respondents say it will get worse for agriculture and 6% believe that of forestry.

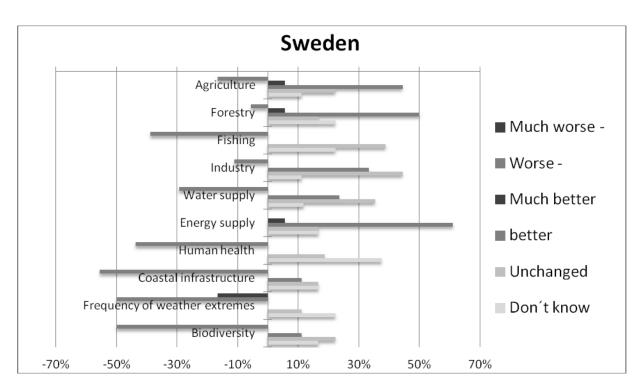


Figure 123: TA perceptions of changes in sectors and activities due to climate change

#### **Overall perception for comparison:**

Overall the perceptions are predicting worse future for biodiversity and frequency of weather extremes. Nevertheless there is more hope in energy supply, water supply and industry. 32% of the overall respondents believe the situation for energy supply will be better and 2% say much better (at the same time only 21% say worse and 1% much worse), 14% better and 1% much better for industry (against 15% worse and 1% much worse) and 12% better and 1% much better for water supply (against 37% worse and 2% much worse).







Despite the somewhat optimistic or balancing figures, future of activities is believed to worsen according to the overall respondents, Figure 124.

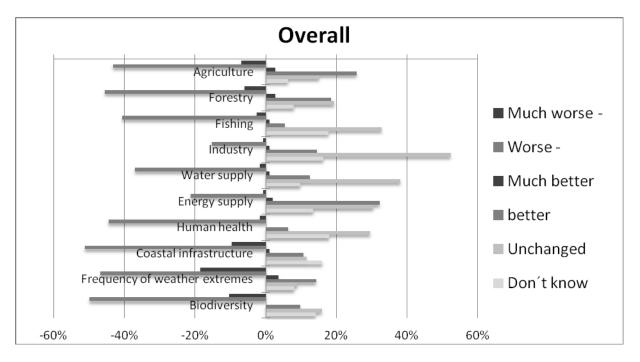


Figure 124: Overall perceptions of changes in sectors and activities due to climate change

2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

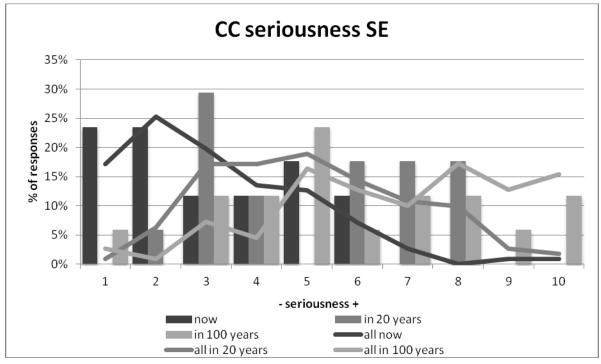


Figure 125: Seriousness of climate change today, in 20 years and in 100 years as is perceived by everyone and respondents from Lithuanian TA.







Figure 125 explains how serious issue climate change is believed to be. The seriousness scale on the graphs increases from left to right with 1 being the least serious and 10 the most.

Swedish respondents feel that at the moment the situation is not very serious, Figure 125. It gets more serious in 20 years but there is not a great difference in that and 100 years prediction. It can be said that although Swedish respondents consider the consequences to be more serious in 20 years than the overall respondents they are still more optimistic than the rest.

#### 3a. Is your organisation currently working actively with climate change?

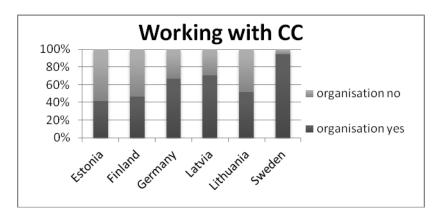


Figure 126: Are organisations of respondents working with climate change

Figure 126 explains if the organisations of respondents are already actively working with climate change. Swedish respondents are clearly leading the way here (94% saying yes) with Latvian and German respondents following with 71% and 67% respectively answering yes. Estonian, Finnish and Lithuanian respondents are showing somewhat smaller activity with Estonian organisations being most inactive in working with climate change and 58% answering "no".

#### 3b. Does your present position include issues related to climate change?

When it comes to working with climate change in personal position, Figure 127 shows different results. Swedish respondents still are still working the most with climate change (94% "yes") but Finnish respondents come in close on second place (87% "yes"). Instead of Estonian respondents being less involved, Latvian and Lithuanian respondents showed bigger inactivity with climate change in the respondents' present position (67% and 68% saying "no" respectively). Also German respondents' involvement shows a decline to 52% answering "yes". More Estonian respondents worked personally with climate change (50%) than they know that of their organisation.







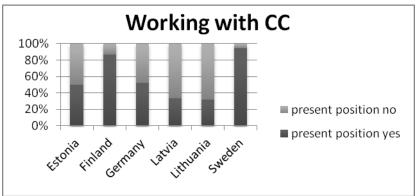


Figure 127: Does present position of the respondents include work related to climate change?

## 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 128 and Figure 129 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all useful/reliable and 5 very useful/reliable. The results are as follows:

The most useful sources for Swedish respondents are scientific reports and scenarios, also local researchers but to a smaller degree. The least useful sources were considered to be local officials, internet and other media. When it came to reliability scientific reports, scenarios and local researches again showed good results being considered as the most reliable sources. Internet, other media and training courses were sources most of the respondents wouldn't like to base their decisions on.







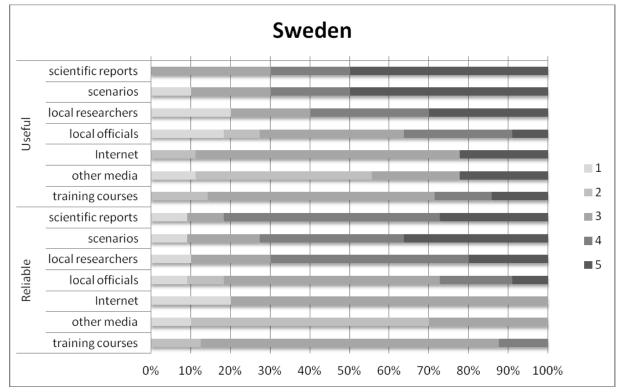


Figure 128: Usefulness and reliability of information sources according to TA's answers.

#### **Overall perception for comparison:**

The overall respondent considered the most useful sources to be: research/scientific reports, scenarios, internet and training courses whereas media, local officials and local researches were not seen as useful. High reliability was omitted to research/scientific reports and scenarios while the least reliable were media, internet and local officials. Also despite a high notion of usefulness of training courses they were not considered to be very reliable.







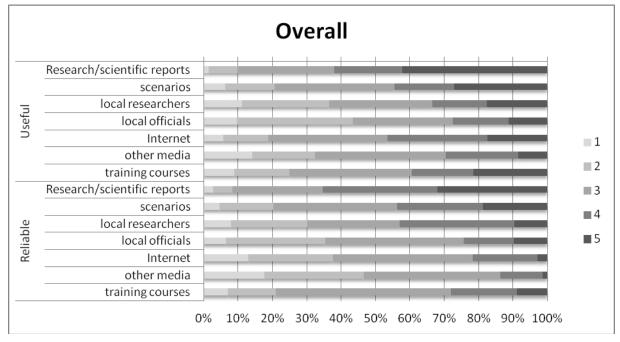


Figure 129: Usefulness and reliability of information sources according to everyone's answers.

#### 3e. Personally, do you think that you are well informed or not about ....

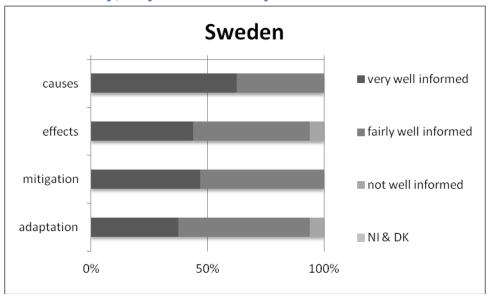


Figure 130: Shows how well are respondents informed about causes, effects, mitigation and adaptation of climate change.

Swedish respondents are very well informed about the causes, effects, mitigation and also adaptation of climate change (Figure 130). There is a little room for better informing about the effects and adaptation but then again only 6% of respondents claimed to be not well informed. When comparing to overall opinions (Figure 131) it can be said that Swedes are by far better informed than are project participants overall.







#### **Overall perception for comparison:**

Overall it can be said that people are informed about the causes and effects of climate change and ways how to mitigate it, although there still is a gap with 22% of respondents not being well informed about the causes and 32% about the effects and mitigation. The situation is not as bright when it comes to climate adaptation. Only 7% of respondents are very well informed whereas 52% are not.

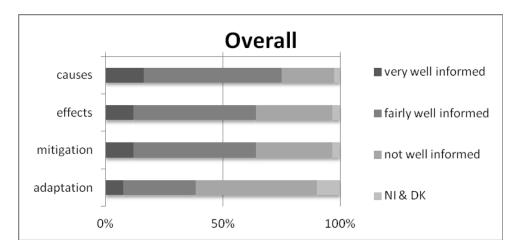


Figure 131: Shows how well are all respondents informed about causes, effects, mitigation and adaptation of climate change.

#### 4d. What effects are you expecting from BalticClimate?

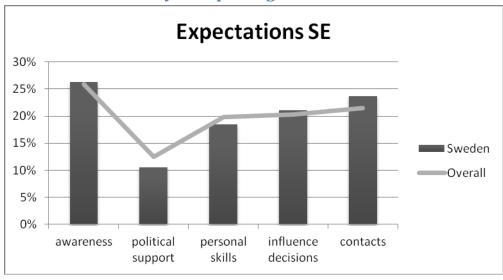


Figure 132: Swedish and overall expectations from the project.

Figure 132 depicts hopes and dreams of BalticClimate project and explains whether the respondents expect increased awareness, more political support, higher personal skills, to influence decisions or to obtain new contacts from the project.

Swedish respondents are mainly expecting from BalticClimate project increased awareness and more contacts. Political support is not very much anticipated for as only 11% expect that



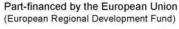




to happen. Overall the Swedish respondents' answers are fairly similar to the ones of overall project participants.









### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix H - Questionnaire Results First Round, Russian Target Area

July 20, 2011

Author:

Lotten Wiréhn, Centre for Climate Science and Policy Research



# Centre for Climate Science and Policy Research







#### **Summary**

This document provides an overview of responses given to the questionnaire sent out to the Russian Target area in autumn 2010. This is the same questionnaire as the one sent out to the six other Target areas in spring 2009. The report consists of a Target Area specific overview of the Russian perceptions but also comparisons to the overall result of the 2009 questionnaire.

30 responses were received from the Russian Target Area. Most of the Russian respondents answered that they were involved in the Russian Target Area and only a few answered to be involved in the Work Packages or had a role as a stakeholder. Only 7 % of the respondents answered that their organisation is actively working with the issue of climate change. 7 % also answered that they personally are working with climate change in their current work position. In a question on how well informed they consider themselves to be about climate change adaptation and mitigation, 24 % claim that they are very well or fairly well informed about mitigation and 20 % claim that they are very well or fairly well informed about adaptation.







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#### **General characteristics of Russian respondents**

About 50 % of the Russian respondents showed to be women and 50 % men. In the overall result of 2009 there were slightly more men than females. The respondents were asked to give their year of birth, Figure 133. People born in the  $60^{th}$  and  $80^{th}$  were the most numerous of the Russians whereas the most numerous groups of the questionnaire 2009 were people born in the  $50^{th}$  and  $70^{th}$ .

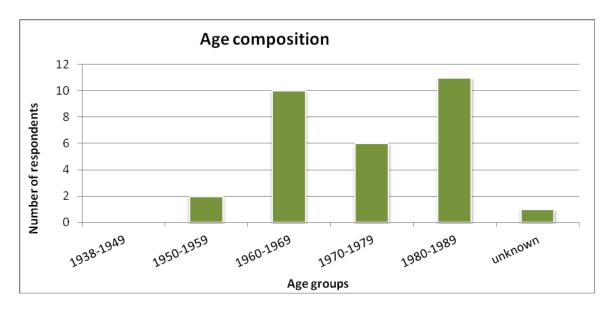


Figure 133: Age composition of Russian respondents

Figure 134 shows what roles the Russian respondents have in the BalticClimate project, note that more than one role could be selected. 80% answered that they are involved in the Target Area but only around 10% answered that they are a BalticClimate stakeholder or involved in a BalticClimate Work Package. In the overall response of 2009 Estonia, Finland and Sweden had a good representation of people involved in the target area whereas Germany, Lithuania and to a smaller extent Latvia had a notably big group of stakeholders answering the questionnaire. The number of people directly involved in work packages was more or less the same throughout Target Areas.







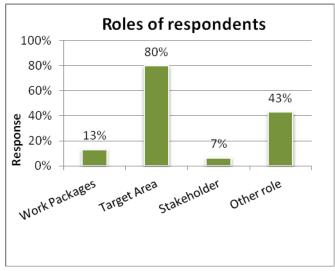


Figure 134: The Russian respondent's roles in the BalticClimate project.

#### Target area specific overview of perceptions

## 2c. In your opinion, do you think that consequences of climate change have an impact on the sector you work in:

Figure 135 shows the perceptions of the Russian respondents regarding the climate change impacts on their sector. The result shows that about 40 % consider that climate change will affect their sector both today and in the future. The result shows that the Russian respondents are more uncertain about their perception on future climate change consequences. These are lower rates than the overall result of the questionnaire 2009. 77% and 79% of the overall responses consider that climate change will affect their sector today and in 20 years, respectively.







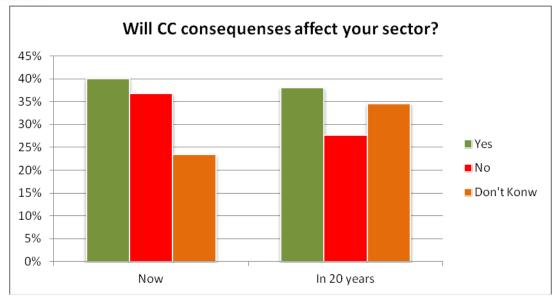


Figure 135: Russian respondents' perceptions on the impacts of climate change.

#### How will it affect your sector?

In this question the respondents could choose between three severity rates of the effects: minor, moderate and major. Figure 136 shows that "negative and positive moderate effects" for both the future and today were the most abundant answer; this was also true for the overall result of 2009. No Russian respondent considered that climate change has major positive effects today and about 10 % considered that it has major negative effects today. Some of the respondents considered that climate change has minor negative effects today (7%) and some more considered that it has positive effects today. Their perceptions of today's situation compared with the situation in 20 years were about the same for the positive effects. However, for the negative effects, there were a higher percentage of the respondents thinking it will have major negative effects whereas no one considered that climate change will have minor negative effects.

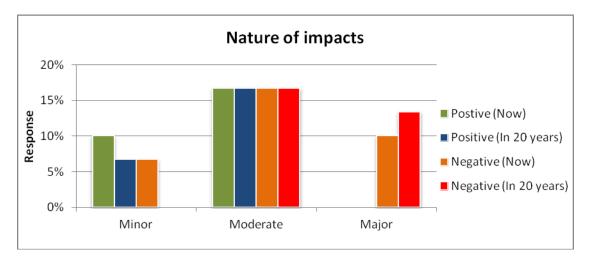


Figure 136: Russian Target Area perceptions of the nature of impacts today and in 20 years.







## 2d. In 20 years, how do you think temperature and precipitation have change in your region?

Figure 137 and Figure 138 show perceptions of Russian respondents on temperature and precipitation change in 20 years. 67 % considered that we will get a warmer climate; of them, a few more considered that winter will get warmer than that summer will be warmer. None of the respondents think it will get colder in the winter; everyone that thinks climate change will lead to colder weather believes that this change will be in the summer. Regarding the precipitation, no one answered that they think climate change will lead to less rain in 20 years; the perception for 67 % of the respondents was that there will be more rain. 50 % of them considered that there will be more rain in winter and 27 % that it will be more rain in summer.

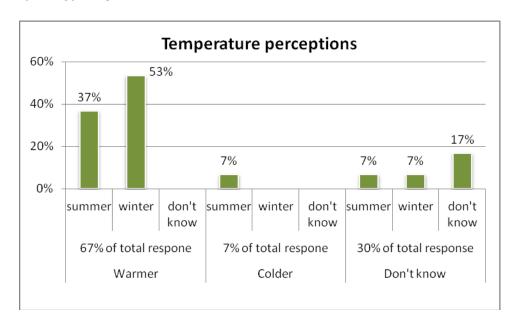


Figure 137: Russian TA perceptions of temperature change

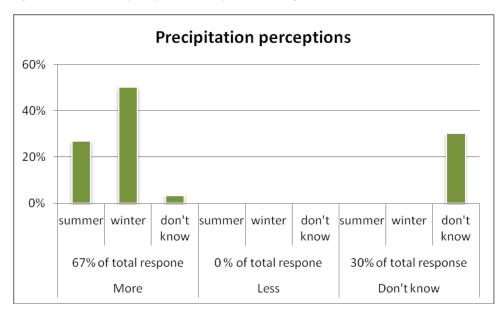








Figure 138: Russian TA's perception of precipitation change.

#### 2e. To what degree do you think climate change will affect the conditions for the following sectors and activities in your region?

The Russian respondents' perceptions of how climate change will affect the conditions for different sectors in the region are shown in Figure 139. For all sectors "much worse", "worse" and "unchanged" are the overrepresented answers. A few respondents (3- 10%) think that the situations for some sectors will get better with climate change; none think that the situation get be much better. The Russian result shows the same pattern as the overall result. However, the Russian respondents are slightly more optimistic. In the overall result, for all sectors except industry and energy supply, about 40 % or more answered that the conditions for the sectors will get worse.

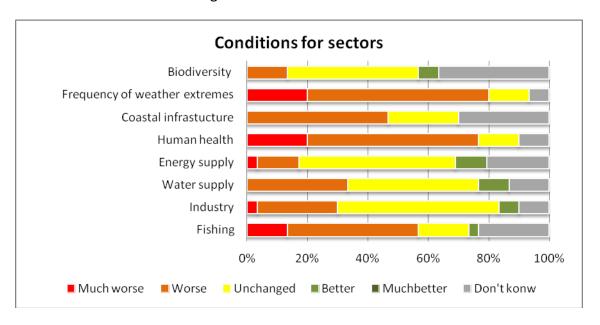


Figure 139: Russian TA perceptions of changes in sectors and activities due to climate change

## 2f. And how serious do you think the consequences of climate change are today, in the coming 20 years and coming 100 years in your region?

Figure 140 explains how serious the issue climate change consequences are considered to be by the Russian respondents. The seriousness increases from left to right in the figure, with 1 being the least serious and 10 most serious. The pattern of the result is quite clear; the most abundant answers of the today's seriousness are between 1 and 5 whereas 4-7 and 6-10 are the most abundant answers for the situation in 20 and 100 years, respectively. The same pattern is also true for the overall result of the questionnaire in spring 2009.







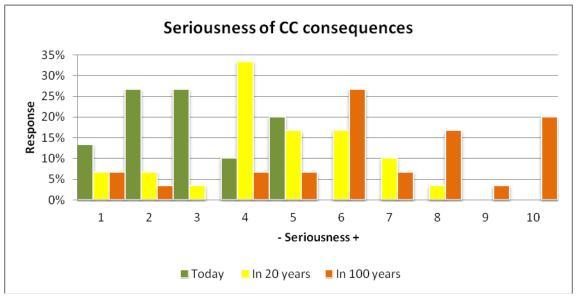


Figure 140: Seriousness of climate change today, in 20 years and in 100 years as it is perceived by Russian respondents.

## 3a and b. Is your organisation currently working actively with climate change? Does your present position include issues related to climate change?

The respondents were asked if their organisation is working actively with climate change, they were also asked if they work with climate change themselves in their present position, Figure 141. Very few (7%) answered that they or their organisation work actively with climate change. This is a very low rate compared to the result of the other Target areas in the spring 2009. 94 % of the Swedish respondents answered that their organisation is working with climate change. Estonian, respondents had the lowest rate but the result still showed that 58% of the respondents' organisations were working with climate change. About the same overall result was true for climate change in working position.







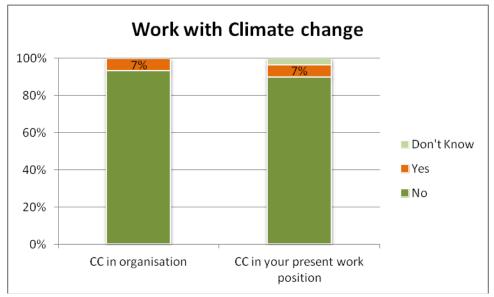


Figure 141: The respondents' organization and personal work position treating climate change issues.

## 3d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 142 depicts the usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated on a scale of 1-5 where 1 stands for not at all "useful/reliable" and 5 "very useful/ reliable".

Russian respondents considered that Climate Scenarios, Scientific Reports and "Other" Media are the most useful information sources. Training courses was considered least useful but also least reliable. Scientific Reports was considered most reliable.

The overall respondent of 2009 considered the most useful sources to be: Scientific Reports, Climate Scenarios, Internet and Training Courses whereas Media, Local Officials and Local Researches were not seen as useful. High reliability was omitted to Scientific Reports and Scenarios while the least reliable were Media, Internet and Local Officials.







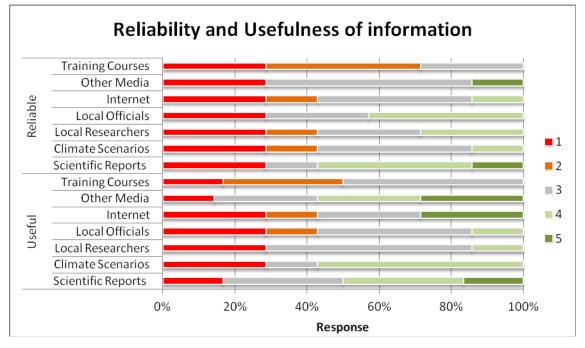


Figure 142: Usefulness and reliability of information sources according to Russian TA answers

#### 3e. Personally, do you think that you are well informed or not about....

Figure 143 depicts the respondents' perceptions of awareness level of climate change causes, effects, mitigation and adaptation. Only about 20 % consider themselves to be fairly or very well informed about climate change adaption and mitigation. More respondents, 40-50 %, considered that they are fairly or very well informed about climate change causes and effects.

The overall result of 2009 showed higher percentages of respondents that considered that they were very well or fairly well informed. Above 60 % of the respondents answered that they were be fairly or very well informed about causes, effects and mitigation whereas for adaptation this figure was slightly below 40 %.







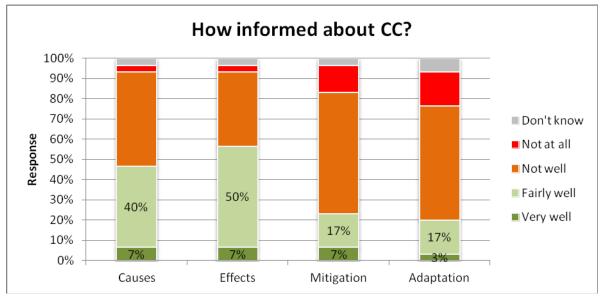


Figure 143: The perception of Russian respondents on how well informed they consider themselves to be about Causes, Effects, Mitigation and Adaptation of climate change

#### 4d. What effects are you expecting from BalticClimate?

Figure 144 depicts expectations of the BalticClimate project and explains whether the respondents expect increased awareness, more political support, higher personal skills, to influence decisions and/or to obtain new contacts from the project.

Although there are no big differences between the topics, the respondents mostly expected the project to raise awareness and establish contacts. Political support and influence decisions were least expected by the Russian respondents. Political support was also least expected in the overall result of 2009, however, influence decisions were not one of the least expected in the overall result. As in the Russian result, the overall result showed that raised awareness was the most expected influence of BalticClimate.









Figure 144: Russian expectations of the BalticClimate project.







Appendix I - Questionnaire 2



## Baltic Challenges and Chances for local and regional development generated by Climate Change

## Questionnaire to Project Participants and Stakeholders

#### To Whom it may concern,

You have received a questionnaire from the project BalticClimate (www.balticclimate.org), co-financed by the EU Baltic Sea Region Programme 2007-2013 (<a href="http://eu.baltic.net/">http://eu.baltic.net/</a>) and part of a flagship project of the EU Baltic Sea Region Strategy. BalticClimate supports regions and municipalities in the Baltic Sea Region to pro-actively deal with climate change.

This questionnaire surveys where we are now, in your organizations and in your local areas, with respect to actively working with climate adaptation and mitigation as well as to evaluate whether you think the various activities undertaken and experience made in the BalticClimate project have been useful. The questionnaire hence also supports the Mid-Term-Evaluation of the project. This questionnaire is sent out by Centre for Climate Science and Policy Research (CSPR), Linköping University, which is leading BalticClimate Work Package 3. All data will be handled carefully and all respondents are granted full anonymity. Results will only be presented in country, age-section or similar categories. If you have any queries, please do not hesitate to contact Lotten Wiréhn at lotten.wirehn@liu.se

We would greatly appreciate if you could devote 15 to 20 minutes of your time to answer the questionnaire attached to this letter. Please return it either to: <a href="mailto:balticclimate@tema.liu.se">balticclimate@tema.liu.se</a> or to the person having handed or sent out the questionnaire to you. If you submit the questionnaire electronically, please do not forget to save your changes before submitting it. Please reply by the 20<sup>th</sup> of February 2011 at the latest.

We are grateful for your contribution,

Mattias Hjerpe Assistant Professor, BalticClimate Work Package 3 leader mattias.hjerpe@liu.se

Linköping University Centre for Climate Science and Policy Research Nya Kåkenhus, SE-601 74 Norrköping Sweden Dennis Ehm Research assistant BalticClimate project coordinator Ehm@ARL-net.de

BalticClimate c/o Academy for Spatial Research and Planning Hohenzollernstr. 11, DE-30161 Hannover Germany











Mid-term-evaluation questionnaire to Project Participants and Stakeholders of BalticClimate



(European Regional Development Fund)



| 1a. What sector do you work   | in?  |   |
|---|--|---|
| 1b. What is the name of your  | Organisation?  |   |
| 1c. What are the primary acti   | vities carried out by your Or  | ganisation?   |
| 1d. Demographic information   |  |   |
| What is your gender? What is your country of residence?                     | ☐ Male ☐ Estonia ☐ Finland ☐ Germany ☐ Latvia ☐ Lithuania                                      | Female  Poland  Russia  Sweden  Other, please specify               |
| What is your year of birth?   |  |   |
| Participating/-ed in any of Gävleborg, Western Meck Panevezys Region, Pskov | the BalticClimate Work Packa<br>the BalticClimate local/region<br>lenburg, Keski-Suomen, Harju | nges?<br>al project activities? (in<br>umaa, Raplamaa, Cesu Region, |
|   | engaged in the BalticClimate particClimate questionnaire of Forntence:                         | 0   |
| 2a. Is your organisation curre  ☐Yes ☐No                                    | ently working actively with cl   | imate change?   |







| If yes, please de | scribe shortly how: |  |  |
|-------------------|---------------------|--|--|
|                   |                     |  |  |
|                   |                     |  |  |
|                   |                     |  |  |
|                   |                     |  |  |
|                   |                     |  |  |







| 2b. Does you   | r present                     | work ]          | positio  | on include issu                                 | es related to  | climate change?  |        |  |
|--|-------------------------------|-----------------|--|---|----------------|--|--------|--|
| Yes No If yes, please continue. Otherwise go to question 2e. |                               |                 |  |   |                |  |        |  |
| 2c. What clin  | mate chan                     | ge rela         | ted ta   | sks are you in                                  | volved with i  | in your everyday   | work?  |  |
| trustworthy  | do you fir                    | nd then         | n? Ple   | ase rank each i                                 | nformation so  | sed or do you use<br>ource from 1 to 5<br>seful" or "most tr | with 1 |  |
| Useful   | Reliable                      | )               | Source   | ce of informat                                  | ion            |  |        |  |
|  |                               |                 | Resea  | arch/Scientific                                 | reports.       |  |        |  |
|  |                               |                 |  | ate scenarios from the scenarios from the like. | om National (  | Climate Computir   | ng     |  |
|  |                               |                 | Resea  | archers in my re                                | egion/organis  | ation.   |        |  |
|  |                               |                 | Offici   | ials in my regio                                | on/organisatio | n.   |        |  |
|  |                               |                 | Sourc  | es available on                                 | the Internet.  |  |        |  |
|  |                               |                 |  | es available than al papers, TV.                | -              | nedia, e.g. local ar   | nd     |  |
|  |                               |                 | Train  | ing courses, etc                                | <b>.</b>       |  |        |  |
|  |                               |                 | Other information sources, please list and rank: |   |                |  |        |  |
|  |                               |                 | Other  | information so                                  | ources, piease | iist and fank.   |        |  |
| 2e. Personal   | ly, do you                    | think           | that y   | ou are well inf                                 | ormed or no    | t about  | 1      |  |
|  |                               | Very<br>  infor | y well Fairly well Not well Not informed Don't   |   |                |  |        |  |
| the causes   | the causes of                 |                 |  | informed  | informed       | at all   | know   |  |
|  | climate change                |                 | _  |   |                |  |        |  |
|  | the effects of                |                 |  |   |                |  |        |  |
| climate change   |                               |                 | 1  |   |                |  |        |  |
| the ways in which you mitigate climate change?               |                               |                 |  |   |                |  |        |  |
|  | he ways in which can adapt to |                 |  |   |                |  |        |  |







|  | Very well   | Fairly well   | Not well             | Not informed       | Don't   |
|--|---|---|----------------------|--------------------|---------|
|  | informed  | informed  | informed             | at all             | know    |
| the main challenges<br>of climate change in<br>your local/regional<br>area   |   |   |                      |                    |         |
| the main chances of climate change in your local/regional area   |   |   |                      |                    |         |
| what factors contribute to your organisation's capacity to respond to climate change   |   |   |                      |                    |         |
| 2f. What kind of supp to a sustainable managed as the sustainable managed a | gement in yo  | ur local/ regio   | nal area?            |                    |         |
| 3b. Why did you decide BalticClimate organize  |   |   | icClimate pi         | roject or attend   |         |
| 3c. What benefits do y organization?   | ou think Bal  | ticClimate ha   | ve had so far        | for your own       |         |
| 3d What benefits do y area?  | ou think Bal  | ticClimate hav  | ve had so far        | for your local/ re | egional |
| 3e. Please indicate who Raising awareness Gaining political so Developing my pe Influencing decision Establishing contain No specific effects  | of climate chapport or final<br>ersonal skills/on<br>on making in<br>cts with other | nange in genera<br>ancial resource<br>competence.<br>my region. | ıl.<br>s for my orga |                    |         |







| Other expected effects, please descri                         | ribe in one sentence:  |
|---|--|
| 0 0 1   | inue working with assessing challenges and chances of ion after the end of the BalticClimate project?  |
| ☐ Yes ☐ No  | o Don't know yet   |
| If yes, please describe your plans sho                        | nortly:  |
|   |  |
| for your work with climate change                             | ne following BalticClimate activities have been useful ge adaptation and mitigation, for instance in selected ctivities that apply, please indicate on a scale from 1-7, is "Very useful". |
|   | Not useful at all ← Very useful Don't  |
|   | 1 2 3 4 5 6 7  |
| Inventory activity: Challenges and                            |  |
| chances of climate change Inventory activity: Urban structure |  |
| maps  |  |
| Inventory activity: Stakeholder                               |  |
| mapping   |  |
| Vulnerability analysis: Exercises                             |  |
| Vulnerability analysis: Work in the local/regional groups     |  |
| Sustainable Development Guidelines                            |  |
| Other activities:   |  |
| 3h. What is in your opinion the mo                            | nost important lesson learnt from the BalticClimate  |
| ž -   | hallenges and chances facing your local/regional area e-project? If so, please describe in what way (more  |
| • •   | nallenges and chances facing your sector changed? If so, please describe in what way (positive or negative).   |
| 21 II   |  |
|   | ion the consequences of climate change today, in the   |
| from 1 to 7, where 1 means "Not ser                           | years for your local/ regional area? Please use a scale prious at all" and 10 "Very serious"   |
| In my local/regional area the                                 | Not serious Very serious Don't   |







| consequences of climate change | at all |   |   |   |   |   |   | know |
|--------------------------------|--------|---|---|---|---|---|---|------|
|                                | 1      | 2 | 3 | 4 | 5 | 6 | 7 |      |
| are today                      |        |   |   |   |   |   |   |      |
| will 20 years from now be      |        |   |   |   |   |   |   |      |
| will 100 years from now be     |        |   |   |   |   |   |   |      |

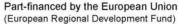
| 4. If you would like to inform us about more details of your present position, on  |
|--|
| BalticClimate or your work with climate change, please, indicate in the box below. |
|  |
|  |
|  |

Thank you for your cooperation!

Mattias Hjerpe, CSPR and Dennis Ehm, ARL









### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix J - Questionnaire Results Second Round, Estonian Target Area

#### **April**, 2011

Author:

Lotten Wiréhn, Centre for Climate Science and Policy Research – Water and environmental studies, Linköping University



# Centre for Climate Science and Policy Research







#### 5 Introduction and summary

This document presents an overview of the results from the questionnaire distributed in February 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders, the first survey was done in spring 2009. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first part of this report consists of a target area specific overview of results. The second part consists of a short reflection of the indicator questions, the results from this questionnaire are compared to results of 2009 and to the targets set up after the first questionnaire. The last part is an appendix describing the general characteristics of the respondents.

Out of 120 questionnaires distributed to Estonian partners, 15 persons responded. In total, 120 responses were received. The Estonian response, hence, contributed with 13% of the overall response stock. The response rates varied from country to country. Estonia which contributed with 13% of the total response had more influence over end-results than, for example, Sweden which contributed with 8% of total response. By keeping this in mind, the weight of individual answers is not diminished. Only 26% of the Estonian respondents and 36% of the total response also answered the questionnaire in 2009. It is, therefore, not possible to draw any truthful conclusions from the comparison of the two surveys.

The three types of respondents (Work Package involved, Target Area involved and BalticClimate Stakeholder) were all well represented in the Estonian response. Target area involved, though, was the most frequently answered role of the Estonian respondents. 47% of the Estonian respondents answered that their organisation currently work actively with climate change and 53% that their present work position include issues related to climate change. In 2009, 42% of the respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

60% of the Estonian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is about the same rate as last survey results, 67%. Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the respondents in 2009, 25%, considered that they were well informed about ways to adapt to climate change, this survey result shows that 73% considered that they are well informed about adaptation.







**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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6

#### **Country specific overview of perceptions**

#### 1e. Are you personally...?

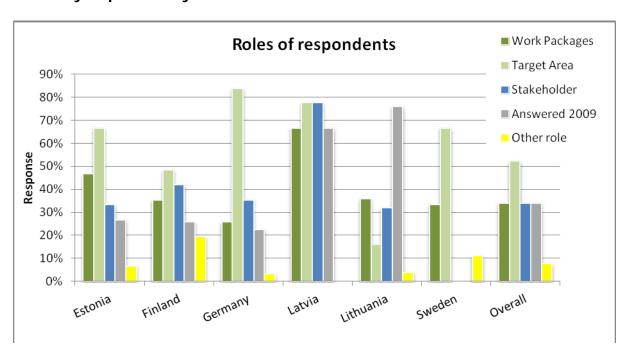


Figure 145: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 145 shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the persons that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the TA countries except Lithuania. People participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had the same percentage of representation. 36% of all respondents replied that they were surveyed in the last BalticClimate questionnaire in 2009. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

#### 2a. Is your organisation currently working actively with climate change?

Figure 146 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change is highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian and Lithuanian respondents show somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







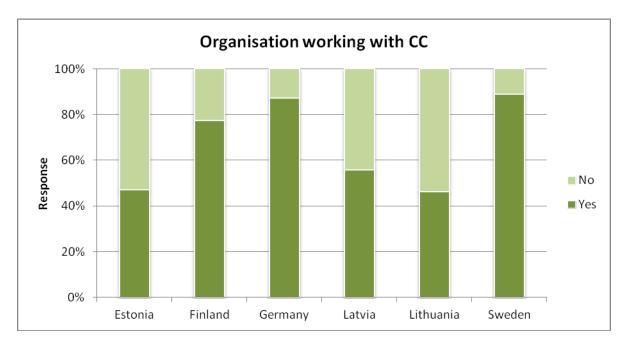


Figure 146: Percentage of respondents' organizations working actively with Climate change (CC)

### 2b. Does your present work position include issues related to climate change?

Question 2b asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 147. The figure illustrates the same tendency as Figure 146; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44% and 28% respectively.







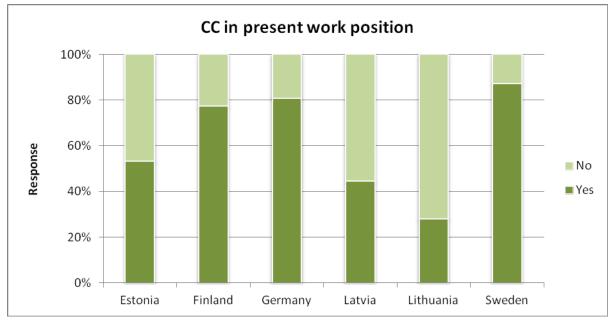


Figure 147: The percentage of the respondents that have a work position that include issues related to climate change

### 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 148 and Figure 149 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable sources for Estonian respondents were considered to be scientific reports together with researchers of the respondent's region/organisation; 44% of the respondents put these two sources to 5, no respondent considered it lower than 4. Nevertheless, climate scenarios were also considered relatively reliable, 60% considered this source as a 4 but none as a 5. Sources available through media were considered least reliable. Concerning the usefulness of information sources the same pattern as for reliability emerged; research/scientific reports and researchers of the respondent's region/organisation were considered most useful, 56% and 44%, respectively, considered this as 5, the rest considered it as a 4. Sources available through media were considered least useful.







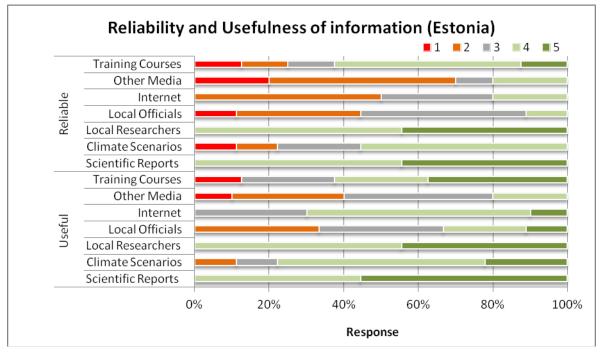


Figure 148: Usefulness and reliability of information sources according to Estonian TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

#### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 6 or 7. "Training courses" was considered the second most reliable source and "other media" the least reliable. Scientific reports were also considered to be the most useful sources of information. Local researchers had the second highest percentage of 6 and 7 rankings on the usefulness scale. Other media was considered least useful.







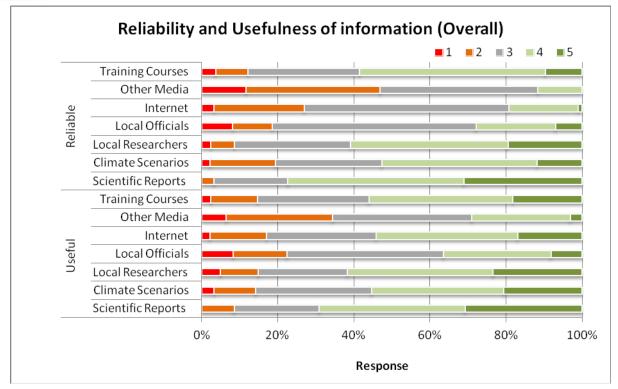


Figure 149: Usefulness and reliability of information sources based on all respondents.

#### 2e. Personally, do you think that you are well informed or not about...

Figure 150 and Figure 151 depict the respondents' level of awareness about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The Estonian result showed that "fairly well" was the most abundant answer for all categories. The respondents showed to be most informed about the effects of climate and least informed about the factors that contribute to their organization's capacity to respond to climate change.







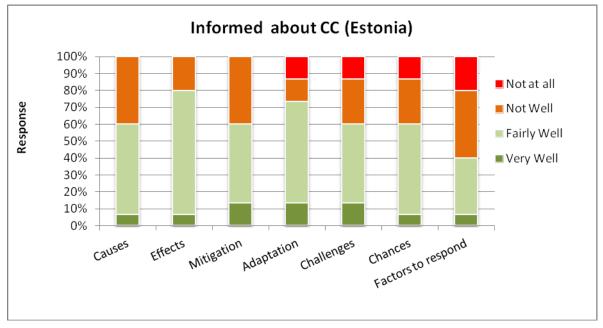


Figure 150: Illustrate how well Estonian respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered to be most informed about effects of climate change, 87% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 8%.







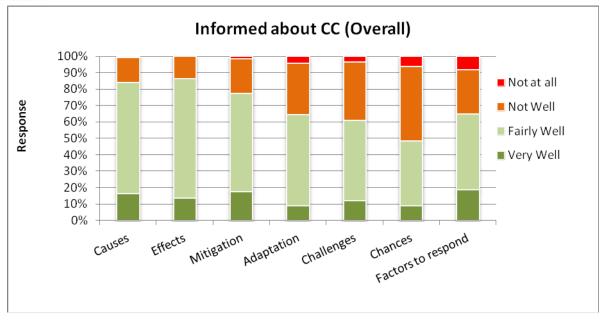


Figure 151: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

#### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 152 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected. 67% of the Estonian respondents considered that BalticClimate have resulted in raised awareness and personal competence. About haft of the Estonian respondents also filled in "influence of decision makes in the region" and "establishing contacts" as effects of BalticClimate. Only 7% thought that BalticClimate has not had any specific effects at all. The result from the Estonian respondents show the same pattern as the overall result, however the overall result is slightly below the Estonian for all effects but "raising awareness" and "no specific".







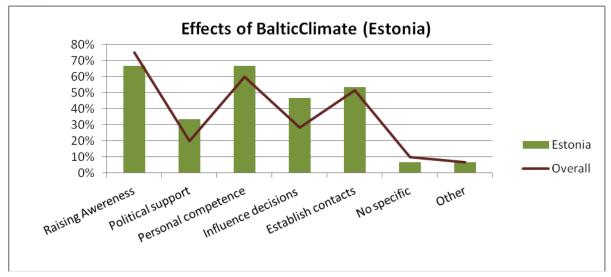


Figure 152: The figure show what effects the Estonian and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

# 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. The Estonian result showed that the majority, 60%, have plans to continue to work with climate change challenges and chances in their organizations after BalticClimate, Figure 153. None from the Estonian respondents answered that they will not continue, however, about 30% answered that they don't know if they will. The overall result also showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 10% will not and the rest do not know.







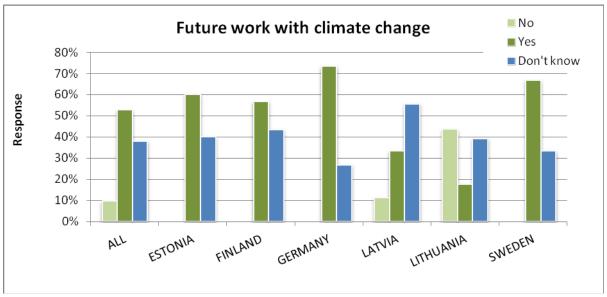


Figure 153: The respondents answer if they have plans to work with climate change challenges and chances after Baltic Climate

# 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Estonia are presented in Figure 154. Sustainable development guidelines and the work in the local/regional groups, as a part of the vulnerability analysis, were the two activates with highest frequency of respondents answering it to be very useful. The exercises in the vulnerability analysis had the lowest mean value, it should be stressed that there is a very small difference between the activity with highest mean value and the one with the lowest; ranging from 4,9 to 6.1.

The overall result, Figure 155, also showed that the sustainable development guidelines and the work in the local/ regional groups were the two activates with highest frequency of respondents considering it to be very useful, although, the rate was not as high as for the Estonian result. The overall result also showed very small difference between the activity with highest mean value and the one with lowest. Except from "other activity", the urban structure maps had the lowest mean value of usefulness, 4,6, and sustainable development guidelines had the highest mean value of usefulness, 5,4.







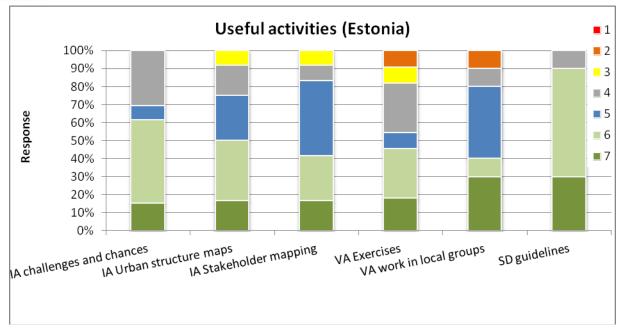


Figure 154: These are the results for Estonia. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 12-35 % answered "don't know" depending on type of activity.

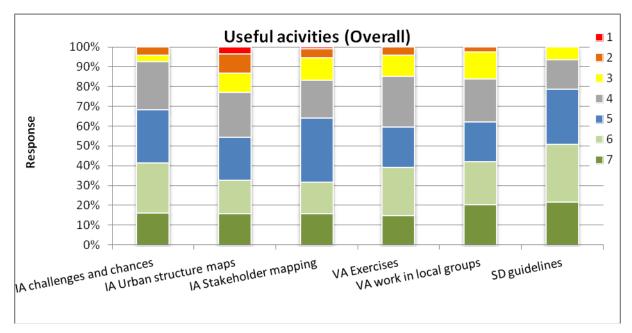


Figure 155: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-33% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 156 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The Estonian results show no absolute patterns, however, the result shows that the response of seriousness of today's consequences are most frequently considered to be 2 to 4 on the scale to 7. The seriousness in 20 years shows no pattern, however, 4 and 5 were the most frequent answer. Estonian respondents considered consequences in 100 years to be higher than today and in 20 years, 6 and 7 were the two most frequent answers.

Although there is no clear pattern in the Estonian results, the overall results clearly demonstrates the tendency. The seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

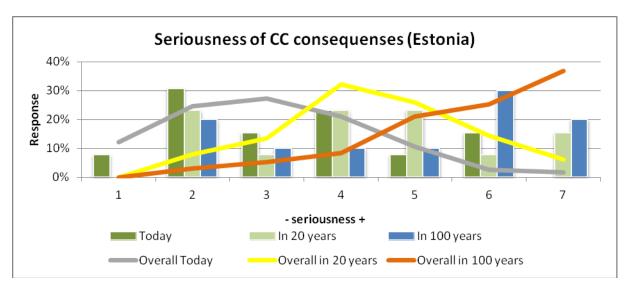


Figure 156: How respondents (Estonian and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-31 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways in which they mitigate climate change, and (3) - ways in which they can adapt to climate change.



Overall





47% of the Estonian respondents answered that their organisation currently work actively with climate change and 53% that their present work position include issues related to climate change. In 2009, 42% of the respondents answered that their organisation integrates the issue of climate change into their development activities. Overall targets were set after the first survey for the three indicators, the first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, see Table 9. Thus, the percentage of Estonian BalticClimate organisations that actively work with climate change is higher for this result than for the last survey, but Estonia did not reach the target alone. The overall result did not reach the target of 71% either. It is hard to draw any conclusions of the result and comparisons since it, in the overall result and for some target area result, is such small difference in percentage between the years together with the fact that about two thirds of the overall respondents did not answer the questionnaire in 2009.

Table 9: Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

61%

| Is your organisation currently working actively with climate change? |          |      |        |  |
|--|----------|------|--------|--|
| Respondents  | Baseline |      | Target |  |
|  | 2009     | 2011 |        |  |
| Estonia  | 42%      | 47%  | 71%    |  |

69%

71%

60% of the Estonian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is slightly below the rate of the last survey result (67%). The overall result for mitigation has increased with 17 percentage points; however the target is not met yet. Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the Estonian respondents in 2009 (25%) considered that they were well informed about ways to adapt to climate change. This survey result shows that 73% of Estonian respondents consider that they are well informed about adaptation; this is well over the target of 57%,







Table 10. Even though only one of three targets was met for Estonia, the general result for Estonia shows that the integration of climate change in organisations and how informed BalticClimate participants and stakeholders are about mitigation and adaptation have increased and are on the right way. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change has increased considerably as well, from 37% to 65%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.







Table 10: Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

| Do you think you are well informed o | about?                      |
|--------------------------------------|-----------------------------|
| the ways in which you mitigate       | the ways in which you can c |

|             | climate change |          |     | climate change |      |        |
|-------------|----------------|----------|-----|----------------|------|--------|
| Respondents | Baseline       | Baseline |     | Baseline       |      | Target |
|             | 2009           | 2011     |     | 2009           | 2011 |        |
| Estonia     | 67%            | 62%      | 81% | 25%            | 73%  | 57%    |
| Overall     | 64%            | 78%      | 81% | 37%            | 65%  | 57%    |







#### **Appendix**

Table 11 describes responses received from each target area. The table shows that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 11 when interpreting the results the weight of individual answers is not diminished.

**Table 11: Response rates** 

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
|           | No.         | No.       | % of distributed in TA | % of overall response |
| Estonia   | 120         | 15        | 13%                    | 13%                   |
| Finland   | 136         | 31        | 23%                    | 26%                   |
| Germany   | 122         | 31        | 25%                    | 26%                   |
| Latvia    |             | 9         |                        | 8%                    |
| Lithuania | 41          | 25        | 61%                    | 21%                   |
| Sweden    | 40          | 9         | 23%                    | 8%                    |
| Total     | ≥459+9      | 120       | 26%                    | 100%                  |

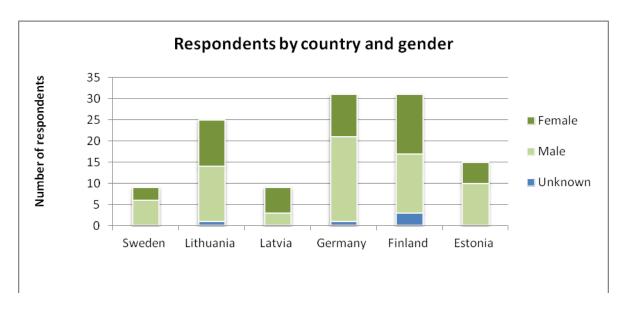


Figure 157: Total respondents by country and gender

Figure 157 describes gender division differences in the participating Target areas. In general there was a higher male response, however for Latvia there was slightly more females responding and in Finland equally many males and females responded.







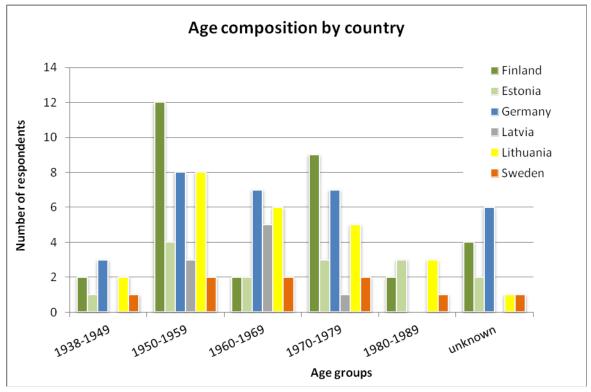


Figure 158: Age division of respondents by country

The age division of respondents by country in Figure 158 is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.

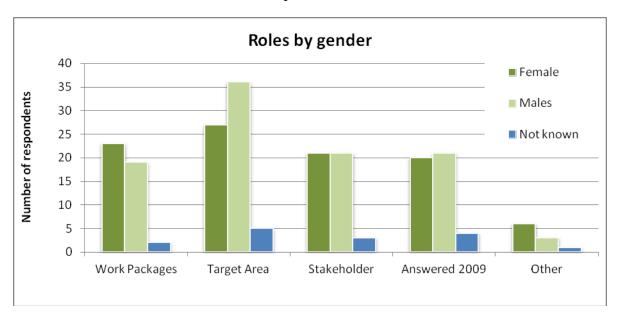


Figure 159: Overall roles by gender

About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 159 show the gender distribution for different roles. There







is quite equal distribution of gender except for the target area group. Three of four groups (excluding other role) have a higher number of males than females, but again, the males were over represented.







### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix K - Questionnaire Results Second Round, Finnish Target Area

**April**, 2011

Author:

Lotten Wiréhn, Centre for Climate Science and Policy Research – Water and environmental studies, Linköping University



# Centre for Climate Science and Policy Research







#### **Introduction and summary**

This document presents an overview of the results from the questionnaire distributed in February 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders, the first survey was done in spring 2009. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first part of this report consists of a target area specific overview of the results. The second part consists of a short reflection of the indicator questions, the results from this questionnaire are compared to results of 2009 and to the targets set up after the first questionnaire. The last part is an appendix describing the general characteristics of the respondents.

Out of 136 questionnaires distributed to Finnish partners, 31 persons responded. In total, 120 responses were received. The Finnish response, hence, contributed with 26% of the overall response stock. The response rates varied from country to country. Finland which contributed with 26% of the total response has more influence over end-results than, for example, Sweden which contributed with 8% of total response. By keeping this in mind, the weight of individual answers is not diminished. Only 26% of the Finnish respondents and 36 of the total response answered the questionnaire in 2009 as well. It is, therefore, not possible to draw any truthful conclusions from the comparison of the two surveys.

The three types of respondents (Work Package involved, Target Area involved and BalticClimate Stakeholder) were all well represented in the Finnish response. Target area involved, though, was the most frequently answered role of the respondents. 77% of the Finnish respondents answered that their organisation currently work actively with climate change and 77% also answered that their present work position include issues related to climate change. In 2009, 47% of the Finnish respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

90% of the Finnish respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is about the same rate as last survey results, 87%. Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the respondents in 2009 (33%) considered that they were well informed about ways to adapt to climate change, this survey result shows that 70% consider that they are well informed about adaptation.







**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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#### **Country specific overview of perceptions**

#### 1e. Are you personally...?

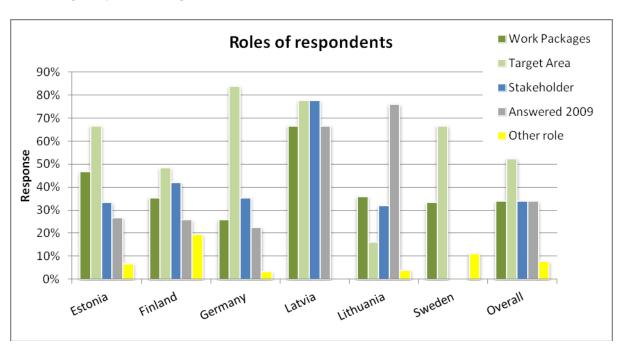


Figure 160: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 160 shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the persons that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the target areas except Lithuania. People participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had the same percentage of representation. 36% of all respondents replied that they were surveyed in the last BalticClimate questionnaire in 2009. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

#### 2a. Is your organisation currently working actively with climate change?

Figure 161 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change is highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian and Lithuanian respondents show somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







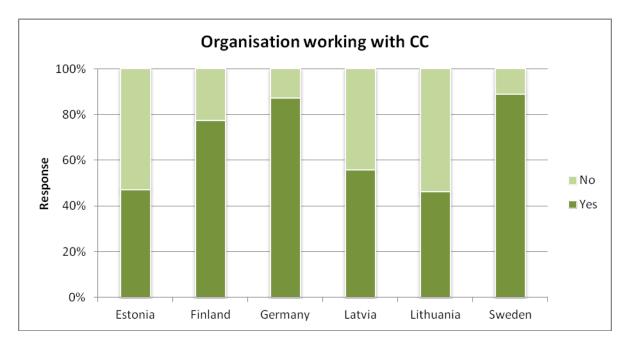


Figure 161: Percentage of respondents' organizations working actively with Climate change (CC)

### 2b. Does your present work position include issues related to climate change?

Question 2b asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 162. The figure illustrates the same tendency as Figure 161; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44% and 28% respectively.







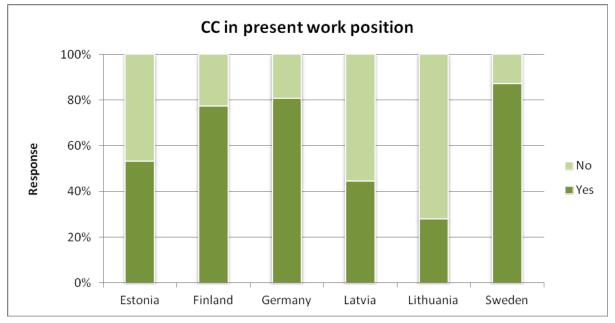


Figure 162: The percentage of the respondents that have a work position that include issues related to climate change

### 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 163 and Figure 164 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable sources for Finnish respondents were considered to be scientific reports, 72% of the respondents considered this as a 4 or 5 on the scale. Researchers of the respondent's region/organisation were considered to be the second highest reliable, 62% considered this as a 4 or 5 on the scale. The result indicates that internet and other media were considered least reliable. Finnish respondents also considered research/ scientific reports to be the most useful information 71% put this to 4 or 5. In contrast to the reliability result, the scientific reports were followed by internet, 63% considered it as 4 o5 on the scale of usefulness. "Other media" was considered least useful.







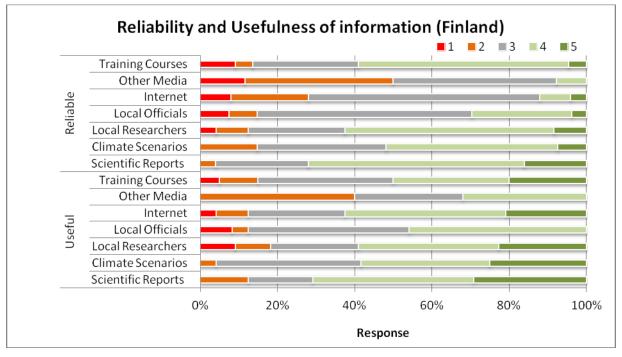


Figure 163: Usefulness and reliability of information sources according to Finnish TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

#### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 6 or 7. "Training courses" was considered the second most reliable source and "other media" the least reliable. Scientific reports were also considered to be the most useful sources of information. Local researchers had the second highest percentage of 6 and 7 rankings on the usefulness scale. Other media was considered least useful.







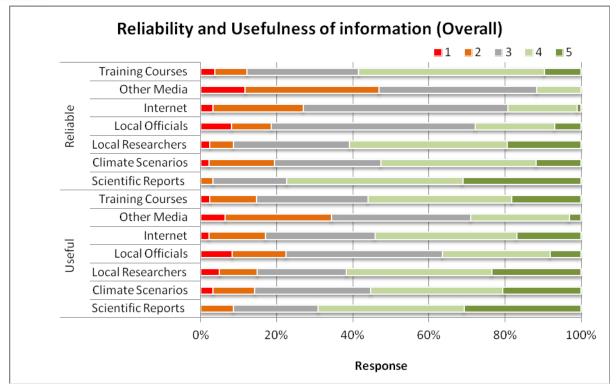


Figure 164: Usefulness and reliability of information sources based on all respondents.

#### 2e. Personally, do you think that you are well informed or not about...

Figure 165 and Figure 166 depict the respondents' level of awareness about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The Finnish result showed that "fairly well" is the most abundant answer for all categories. The respondents showed to be most informed about the causes, effects and mitigation of climate change and least informed about the chances of climate change.







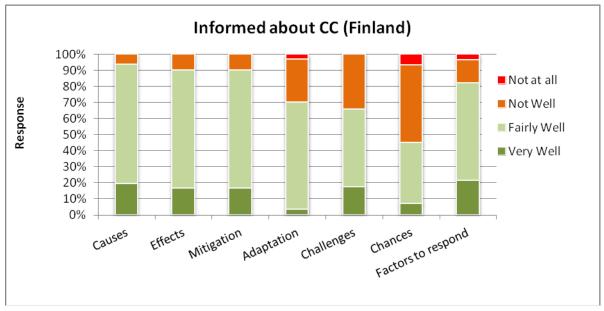


Figure 165: Illustrate how well Finnish respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered that they were most informed about effects of climate change, 87% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 8%.







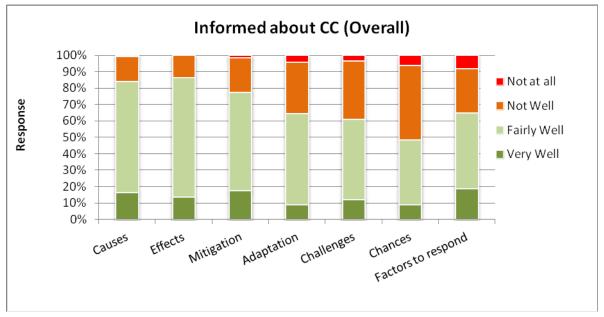


Figure 166: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

#### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 167 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected. The Finnish result showed that 71% of the respondents think that BalticClimate have resulted in raised awareness and 68% that the project has resulted in increased personal competence. About haft of the Finnish respondents also filled in "establish contacts" as effects of BalticClimate. Only 6% thought that BalticClimate has not had any specific effects at all. The result from the Finnish respondents have the same pattern as the overall result.







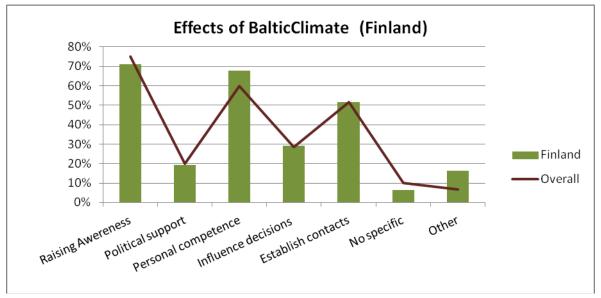


Figure 167: The figure show what effects the Finnish and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

# 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. The Finnish result showed that the majority, 57%, have plans to continue to work with climate change challenges and chances in their organizations after BalticClimate, Figure 168. None from Finland answered that they will not continue, however, 43% answered that they don't know if they will continue. The overall result also showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 10% will not and the rest do not know.







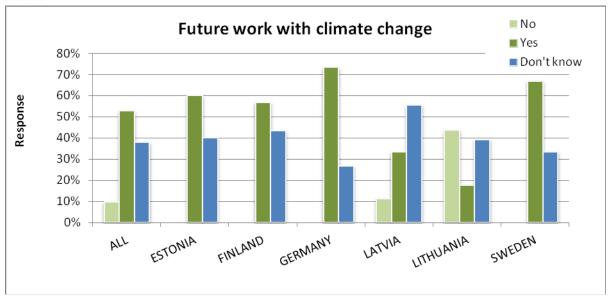


Figure 168: The respondents answer if they have plans to work with climate change challenges and chances after Baltic Climate

# 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Finland are presented in Figure 169. Sustainable development guidelines, the urban structure maps and the inventory analysis of challenges and chances had the highest, and about the same, frequency of respondents answering it to be very useful (6 and 7). The Finnish respondents considered the exercises in the vulnerability analysis to be least useful.

The overall result, Figure 170, also showed that the sustainable development guidelines and the work in the local/regional groups were the two activates with highest frequency of respondents considering it to be very useful, although, the rate was not as high as for the Finnish result. The overall result also showed very small difference between the activity with highest mean value and the one with lowest. Except from "other activity" the urban structure maps had the lowest mean value of usefulness, 4,6, and sustainable development guidelines had the highest mean value of usefulness, 5,4.







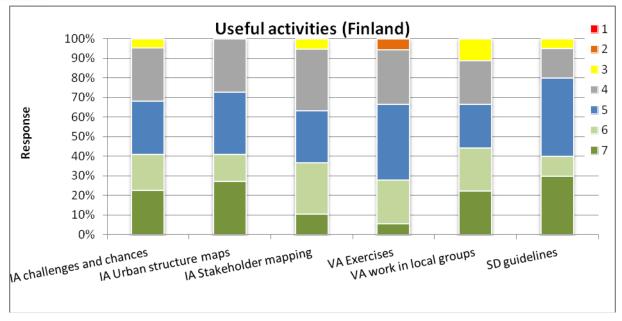


Figure 169: These are the results for Finland. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 12-35 % answered "don't know" depending on type of activity.

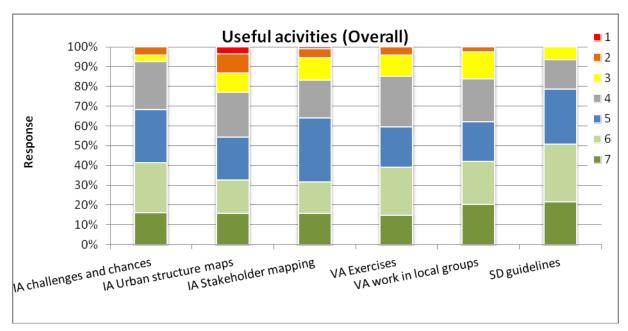


Figure 170: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-33% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 171 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The Finnish results show a quite clear pattern, the result illustrates that the response of seriousness of today's consequences are most frequently considered to be 2 on the scale to 7. The seriousness in 20 years shows was most frequent put to 4, they considered the seriousness of the climate change consequences in 100 years to be very high, 62% answered 6 or 7.

The same results as for the Finnish TA appeared for the overall result. The seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

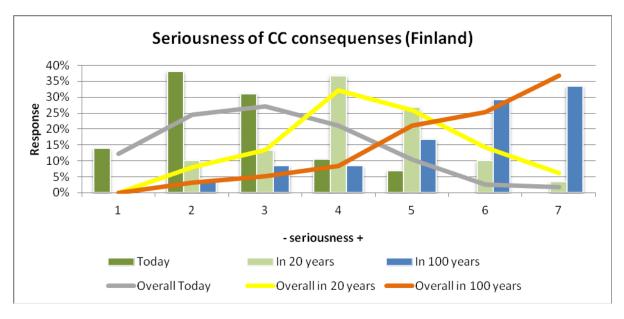


Figure 171: How respondents (Finnish and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-31 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways in which they mitigate climate change, and (3) - ways in which they can adapt to climate change.







77% of the Finnish respondents answered that their organisation currently work actively with climate change and 77% that their present work position include issues related to climate change. In 2009, 47% of the respondents answered that their organisation integrates the issue of climate change into their development activities. Overall target was set after the first survey for the three indicators, the first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, seeTable 12. Thus, percentage of Finnish BalticClimate organisations that actively work with climate change are indicated to have increased since 2009 and the Finnish target area in its own meet the target has. The overall, though, result did not reach the target of 71%. It is hard to any conclusions of the result and comparisons since it, in the overall result and for some target area result, is such small difference in percentage between the years together with the fact that about two thirds of the respondents did not answer the questionnaire in 2009.

Table 12: Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

| Is your organisation currently working actively with climate change? |          |      |        |  |  |
|--|----------|------|--------|--|--|
| Respondents  | Baseline |      | Target |  |  |
| -  | 2009     | 2011 | J      |  |  |
| Finland  | 47%      | 77%  | 71%    |  |  |
| Overall  | 61%      | 69%  | 71%    |  |  |

90% of the Finnish respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is slightly above the rate of the last survey result (87%). The overall result for mitigation has increased with 17 percentage points; however the target is not met yet. Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the Finnish respondents in 2009 (33%) considered that they were well informed about ways to adapt to climate change. This survey result shows that 70% of Finnish respondents consider that they are well informed about adaptation; this is well over the target of 57%, Table 13. All three targets were met by the Finnish target area alone. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change is has increased considerably as well, from 37% to 65%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.

Table 13: Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

|             | Do you think you are well informed about?     |      |        |   |      |        |
|-------------|---|------|--------|---|------|--------|
| Respondents | the ways in which you mitigate climate change |      |        | the ways in which you can adapt to climate change |      |        |
|             | Baseline                                      |      | Target | Baseline  |      | Target |
|             | 2009  | 2011 |        | 2009  | 2011 |        |
| Finland     | 87%   | 90%  | 81%    | 33%   | 70%  | 57%    |







Overall 64% 78% 81% 37% 65% 57%







#### **Appendix**

Table 14 describes responses received from each target area. The table show that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 14 when interpreting the results the weight of individual answers is not diminished.

**Table 14: Response rates** 

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
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| Estonia   | 120         | 15        | 13%                    | 13%                   |
| Finland   | 136         | 31        | 23%                    | 26%                   |
| Germany   | 122         | 31        | 25%                    | 26%                   |
| Latvia    |             | 9         |                        | 8%                    |
| Lithuania | 41          | 25        | 61%                    | 21%                   |
| Sweden    | 40          | 9         | 23%                    | 8%                    |
| Total     | ≥459+9      | 120       | 26%                    | 100%                  |

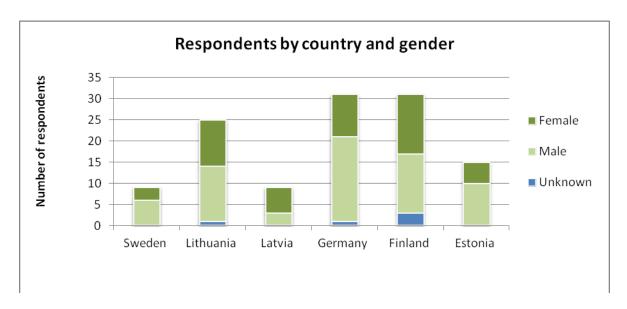


Figure 172: Total respondents by country and gender

Figure 172 describes gender division differences in the participating countries. In general there was a higher male response, however in Latvia there was slightly more females responding and in Finland equally many males and females responded.







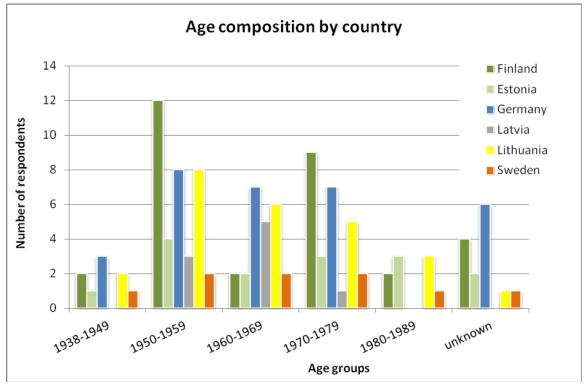


Figure 173: Age division of respondents by country

The age division of respondents by country in Figure 173 is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.



Figure 174: Overall roles by gender

About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 174 show the gender distribution for different roles. There is quite equal distribution of gender except for the target area group. Three of four groups



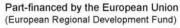




(excluding other role) have a higher number of males than females, but again, the males were over represented.









### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix L - Questionnaire Results Second Round, Latvian Target Area

#### **April**, 2011

Author:

Lotten Wiréhn, Centre for Climate Science and Policy Research – Water and environmental studies, Linköping University



# Centre for Climate Science and Policy Research







#### **Introduction and summary**

This document presents an overview of the results from the questionnaire distributed in February 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders, the first survey was done in spring 2009. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first part of this report consists of a target area specific overview of the results. The second part consists of a short reflection of the indicator questions, the results from this questionnaire are compared to results of 2009 and to the targets set up after the first questionnaire. The last part consists of an appendix describing the general characteristics of the respondents.

It is not known how many questionnaires that were distributed to Latvian partners, however, 9 persons responded. In total, 120 responses were received from all target areas. The Latvian response, hence, contributed with 8% of the overall response stock. The response rates varied from country to country. For example, Germany which contributed with 26% of the total response has more influence over end-results than Latvia which contributed with 8% of total response. By keeping this in mind, the weight of individual answers is not diminished. 67% of the Latvian respondents and 36% of the total response answered the questionnaire in 2009. It is therefore not possible to draw any truthful conclusions from the comparison of the two surveys.

The three types of respondents (Work Package involved, Target Area involved and BalticClimate Stakeholder) were all well represented in the Latvian response. Target area involved and stakeholders, though, were the two most frequently answered roles of the Latvian respondents. 56% of the Latvian respondents answered that their organisation currently work actively with climate change and 44% that their present work position include issues related to climate change. In 2009, 71% of the respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

67% of the Latvian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is about the same rate as last survey results (65%). Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the respondents in 2009 (25%) considered that they were well informed about ways to adapt to climate change, this survey result shows that 44% consider that they are well informed about adaptation.







**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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#### **Country specific overview of perceptions**

#### 1e. Are you personally...?

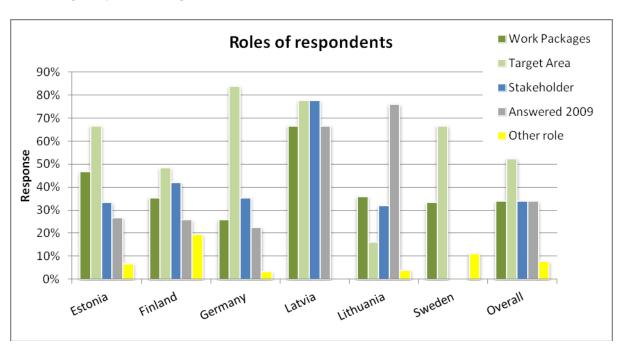


Figure 175: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 175shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the persons that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the TA countries except Lithuania. People participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had the same percentage of representation. 36% of all respondents replied that they also answered the last BalticClimate questionnaire in 2009. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

#### 2a. Is your organisation currently working actively with climate change?

Figure 176 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change was highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian and Lithuanian respondents showed somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







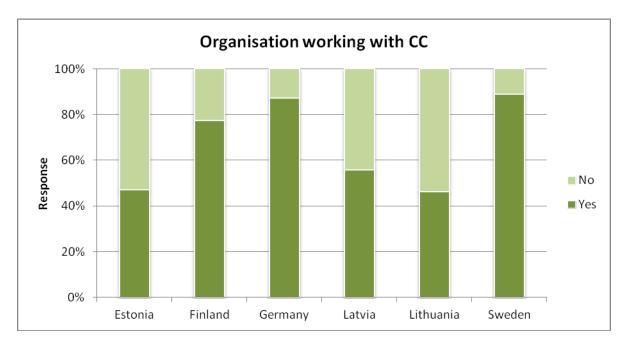


Figure 176: Percentage of respondents' organizations working actively with Climate change (CC)

## 2b. Does your present work position include issues related to climate change?

Question 2b asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 177. The figure illustrate the same tendency as Figure 176; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44% and 28% respectively.







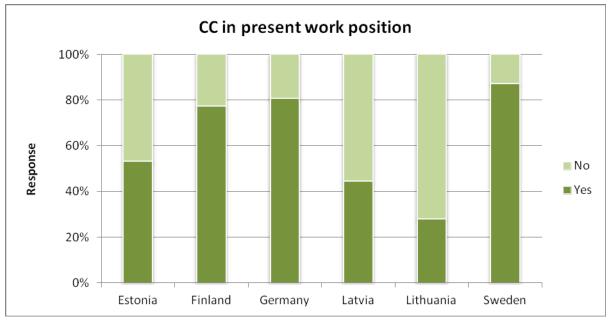


Figure 177: The percentage of the respondents that have a work position that include issues related to climate change

## 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 178 and Figure 179 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable source of Latvian respondents was considered to be training courses, 72% of the respondents considered this as a 4 or 5 on the scale. Scientific reports were considered to be the second highest reliable, 88% considered this as a 4 or 5 on the scale. Climate scenarios and Internet had the lowest percentage of 4 and 5 answers. More or less the same pattern was true for how the respondents considered usefulness of information sources; Latvian respondents also considered training courses to be the most useful information 100% put this to 4 or 5.







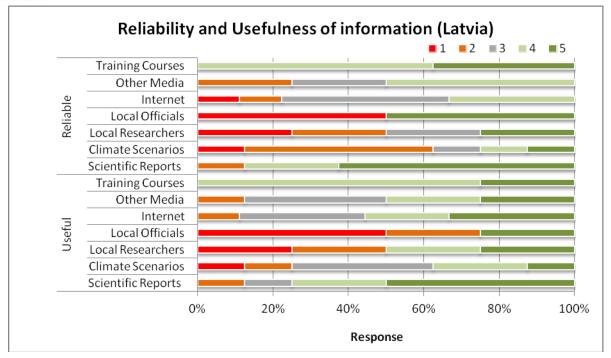


Figure 178: Usefulness and reliability of information sources according to Latvian TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

#### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 6 or 7. "Training courses" was considered the second most reliable source and "other media" the least reliable. Scientific reports were also considered to be the most useful sources of information. Local researchers had the second highest percentage of 6 and 7 rankings on the usefulness scale. Other media was considered least useful.







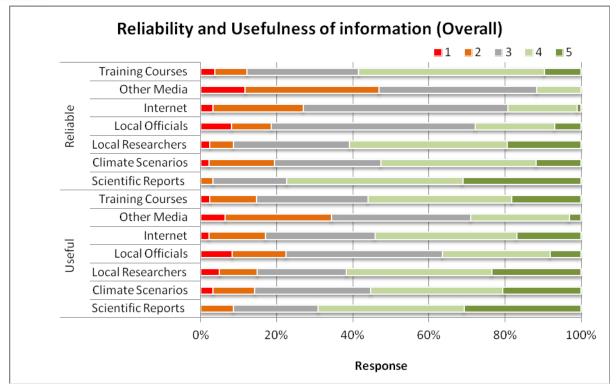


Figure 179: Usefulness and reliability of information sources based on all respondents.

#### 2e. Personally, do you think that you are well informed or not about...

Figure 180 and Figure 181 depict the respondents' level of awareness about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents showed to be most informed about the causes, followed by effects and organisations capacity to respond. The Latvia respondents felt least informed about the challenges and chances of climate change.







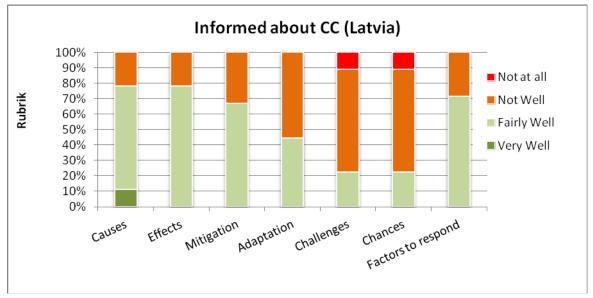


Figure 180: Illustrate how well Latvian respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered to be most informed about effects of climate change, 87% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 8%.







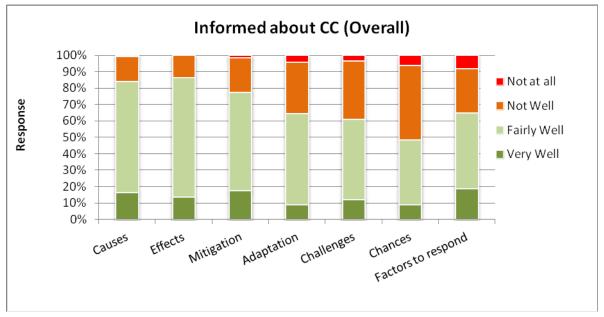


Figure 181: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

#### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 182 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected. The Latvian result showed that 78% of the respondents consider that BalticClimate have resulted in raised awareness and personal competence. Those were followed by "establish contacts", 67% thought this was an effect of BalticClimate. 11% thought that BalticClimate has not had any specific effects at all. The overall result was not the same as the Latvian, although, the same pattern emerged.







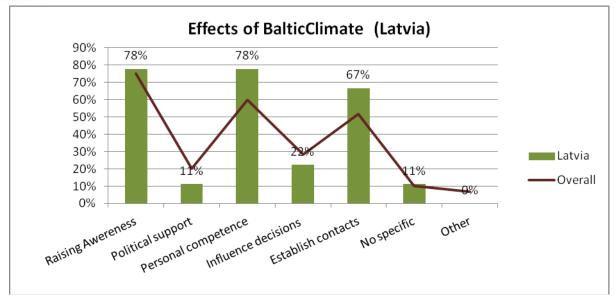


Figure 182: The figure show what effects the Latvian and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

# 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. Most of the Latvian respondents did not know if they will continue to work with climate change challenges and chances in their organizations after BalticClimate, Figure 183. 11%, however, answered that they will not and 33% that they will continue. The overall result, including respondents from all target areas, showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 10% will not and the rest do not know.







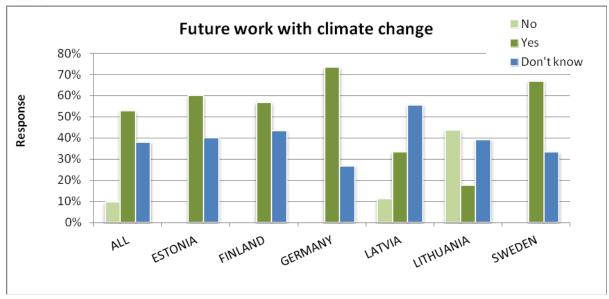


Figure 183: The respondents answer if they have plans to work with climate change challenges and chances after Baltic Climate

# 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Latvian target area are presented in Figure 184. Stakeholder mapping and vulnerability analysis work in local groups had the highest and about the same, frequency of respondents answering it to be very useful (6 and 7). These were closely followed by the sustainable development guidelines, vulnerability exercises and inventory analysis of challenges and chances. The Latvian respondents considered the urban structure maps to be least useful.

The overall result, Figure 185, showed that the sustainable development guidelines and the work in the local/regional groups were the two activates with highest frequency of respondents considering as was very useful. The overall result also showed very small difference between the activity with highest mean value and the one with lowest. The urban structure maps had the lowest mean value of usefulness, 4,6, and sustainable development guidelines had the highest mean value of usefulness, 5,4.







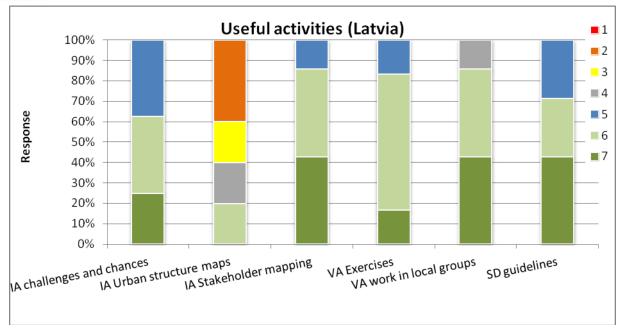


Figure 184: These are the results for Latvia. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 12-35 % answered "don't know" depending on type of activity.

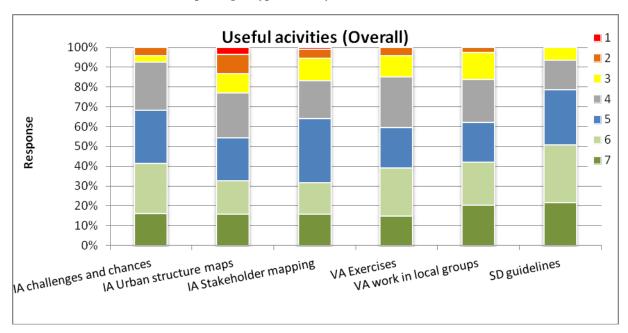


Figure 185: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-33% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 186 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The Latvian results show quite clear patterns, the respondents most frequently considered the seriousness of today's consequences to be 3 on the scale to 7. The seriousness in 20 years was most frequently considered to be a 3 to 5, 25% each. The seriousness of the climate change consequences in 100 years was considered very high, 67% answered 6 and the rest answered 7.

The same pattern as for the Latvian target area appeared for the overall result. The seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

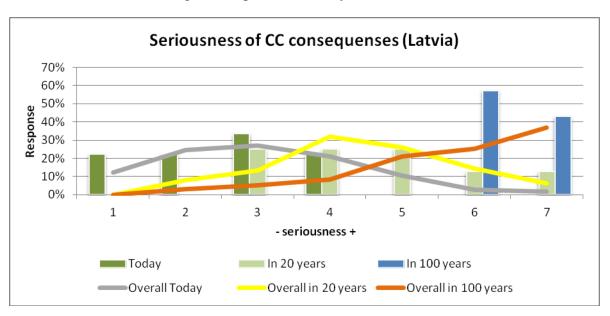


Figure 186: How respondents (Latvian and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-31 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways in which they mitigate climate change, and (3) - ways in which they can adapt to climate change.







56% of the Latvian respondents answered that their organisation currently work actively with climate change and 44% that their present work position include issues related to climate change. In 2009, 71% of the respondents answered that their organisation integrates the issue of climate change into their development activities. Overall targets were set after the first survey for the three indicators, the first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, see







Table 15. Any conclusions cannot be drawn from this decrease since only 9 persons responded from the Latvian target area and all of those did not respond in 2009 (6 persons did). The overall result, result did not reach the target of 71%. But again, accurate comparisons could not be done due to the fact that only about one third of the respondents answered in 2009.







Table 15: Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

| Is | vour | organisation | currently | working | actively | with | climate | change? |
|----|------|--------------|-----------|---------|----------|------|---------|---------|
|    |      |              |           |         |          |      |         |         |

| Respondents | Baseline |      | Target |  |  |
|-------------|----------|------|--------|--|--|
|             | 2009     | 2011 |        |  |  |
| Latvia      | 71%      | 56%  | 71%    |  |  |
| Overall     | 61%      | 69%  | 71%    |  |  |

67% of the Latvian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is slightly above the rate of the last survey result (65%). The overall result for mitigation has increased with 17 percentage points; however the target is not met yet. Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the Latvian respondents in 2009 (25%) considered that they were well informed about ways to adapt to climate change. This survey result shows that 44% of Latvian respondents consider that they are well informed about adaptation, Table 16. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change has increased considerably as well, from 37% to 65%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.

Table 16: Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

| Do you | think you  | are well info  | rmed about? |
|--------|------------|----------------|-------------|
| DU VUU | LIIIIK VUU | ure well illio | meu uvout:  |

|             | the ways in which you mitigate climate change |      |        | the ways in which you can adapt to climate change |      |        |
|-------------|---|------|--------|---|------|--------|
| Respondents | Baseline                                      |      | Target | Baseline  |      | Target |
| -           | 2009  | 2011 | J      | 2009  | 2011 | J      |
| Latvia      | 65%   | 67%  | 81%    | 25%   | 44%  | 57%    |
| Overall     | 64%   | 78%  | 81%    | 37%   | 65%  | 57%    |







#### **Appendix**

Table 17 describes responses received from each target area. The table show that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 17 when interpreting the results the weight of individual answers is not diminished.

**Table 17: Response rates** 

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
|           | No.         | No.       | % of distributed in TA | % of overall response |
| Estonia   | 120         | 15        | 13%                    | 13%                   |
| Finland   | 136         | 31        | 23%                    | 26%                   |
| Germany   | 122         | 31        | 25%                    | 26%                   |
| Latvia    |             | 9         |                        | 8%                    |
| Lithuania | 41          | 25        | 61%                    | 21%                   |
| Sweden    | 40          | 9         | 23%                    | 8%                    |
| Total     | ≥459+9      | 120       | 26%                    | 100%                  |

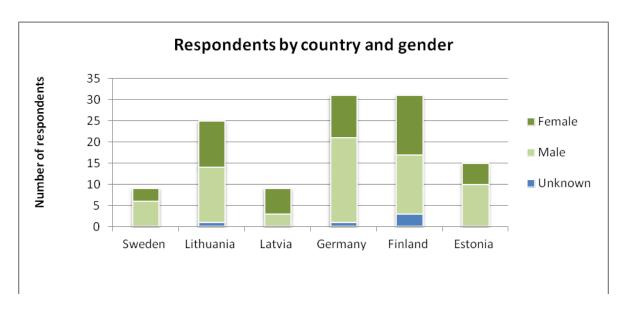


Figure 187: Total respondents by country and gender

Figure 187 describes gender division differences in the participating countries. In general there was a higher male response, however in Latvia there was slightly more females responding and in Finland equally many males and females responded.







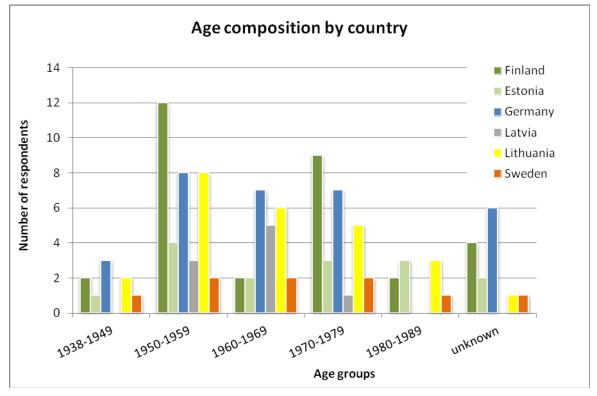


Figure 188: Age division of respondents by country

The age division of respondents by country in Figure 188is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.

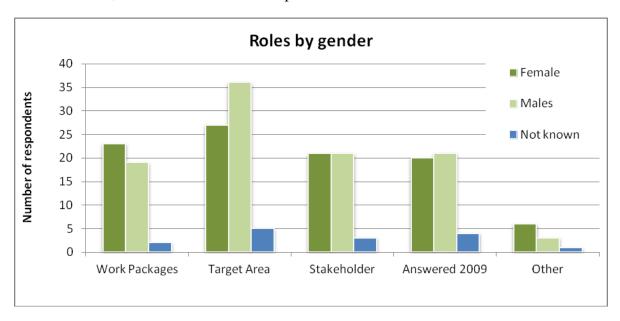


Figure 189: Overall roles by gender

About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 189 show the gender distribution for different roles. There



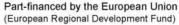




is quite equal distribution of gender except for the target area group. Three of four groups (excluding other role) have a higher number of males than females, but again, the males were over represented.









### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix M - Questionnaire Results Second Round, German Target Area

#### **April**, 2011

Author:

Lotten Wiréhn, Centre for Climate Science and Policy Research – Water and environmental studies, Linköping University



# Centre for Climate Science and Policy Research







#### **Introduction and summary**

This document presents an overview of the results from the questionnaire distributed in February 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders, the first survey was done in spring 2009. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first part of this report consists of a target area specific overview of the results. The second part consists of a short reflection of the indicator questions, the results from this questionnaire are compared to results of 2009 and to the targets set up after the first questionnaire. The last part consists of an appendix describing the general characteristics of the respondents.

Out of 122 questionnaires distributed to German partners, 31 persons responded. In total, 120 responses were received. The German response, hence, contributed with 26% of the overall response stock. The response rates varied from country to country. Germany which contributed with 26% of the total response has more influence over end-results than, for example, Sweden which contributed with 8% of total response. By keeping this in mind, the weight of individual answers is not diminished. Only 23% of the German respondents and 36% of the total response also answered the questionnaire in 2009. It is therefore not possible to draw any truthful conclusions from the comparison of the two surveys.

The three types of respondents (Work Package involved, Target Area involved and BalticClimate Stakeholder) were all well represented in the German response. Target area involved, though, was the most frequently answered role of the German respondents. 87% of the German respondents answered that their organisation currently work actively with climate change and 81% that their present work position include issues related to climate change. In 2009, 67% of the respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

94% of the German respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is a higher percentage than the last survey results when it was 62%. Regarding adaptation to climate change, the result indicates that something has happened here as well. Fairly low percentage of the respondents in 2009 (40%) considered that they were well informed about ways to adapt to climate change, this survey result showed that 77% consider that they are well informed about adaptation.







**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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| 2b. Does your present work position include issues related to climate change?   | M-66     |
| 2d. What sources of information for climate change have you used or do you use and trustworthy do you find them?  |          |
| Overall respond for comparison:   | M-77     |
| 2e. Personally, do you think that you are well informed or not about  | M-88     |
| Overall perception for comparison:  | M-99     |
| 3e. Please indicate what effects you think BalticClimate have had so far  | M-1010   |
| 3f. Do you have any plans to continue working with assessing challenges and chance climate change in your organization after the end of the BalticClimate project?      |          |
| 3g. Please evaluate if you think the following BalticClimate activities have been use your work with climate change adaptation and mitigation, for instance in selected |          |
| implementation cases  |          |
| 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?                 |          |
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#### Country specific overview of perceptions

#### 1e. Are you personally...?

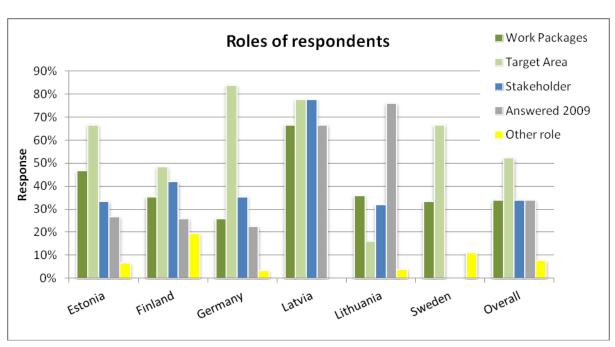


Figure 190: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 190 shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the people that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the target areas except Lithuania. Persons participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had the same percentage of representation. 36% of all respondents replied that they also answered the last BalticClimate questionnaire in 2009. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

#### 2a. Is your organisation currently working actively with climate change?

Figure 191 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change is highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian and Lithuanian respondents show somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







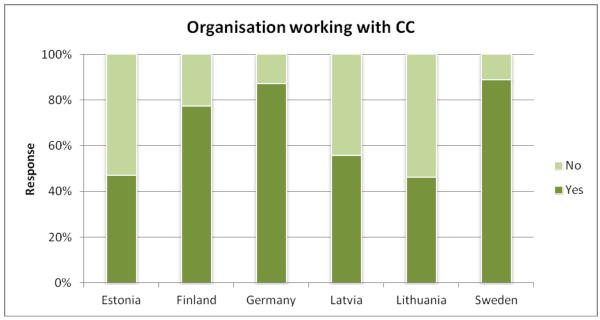


Figure 191: Percentage of respondents' organizations working actively with Climate change (CC)

## 2b. Does your present work position include issues related to climate change?

Question 2b asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 192. The result show the same tendency as Figure 191; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44% and 28% respectively.

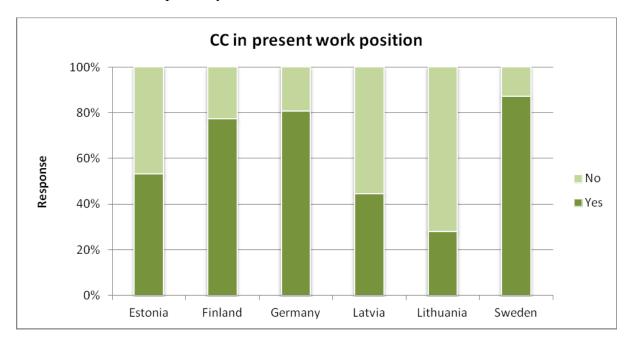


Figure 192: The percentage of the respondents that have a work position that include issues related to climate change







## 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 193 and Figure 194 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable sources for German respondents were considered to be scientific reports, 84% of the respondents considered this as 4 or 5. Local researchers and climate scenarios were considered second and third most reliable information source, the two sources had about the same response. Sources available through media were considered least reliable. Regarding the usefulness of information sources some changes in the pattern emerged. Local researchers, training courses, scientific research and climate scenarios were all considered useful, more than 50% considered these to be 4 or 5. Sources available through media were considered least useful.

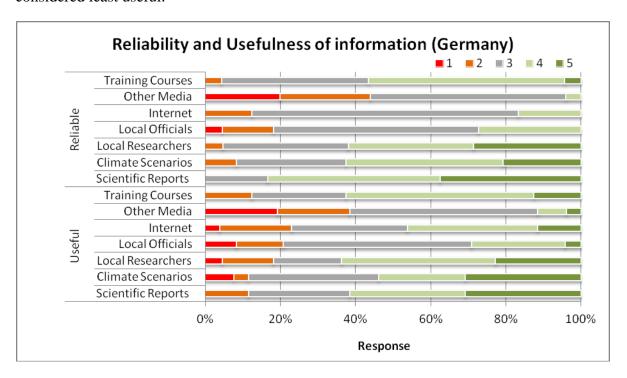


Figure 193: Usefulness and reliability of information sources according to German TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

#### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 6 or 7. "Training courses" was considered the second most reliable source and "other media" the least reliable. Scientific reports were also considered to be the most useful sources of information. Local researchers had the second highest percentage of 6 and 7 rankings on the usefulness scale. Other media was considered least useful.







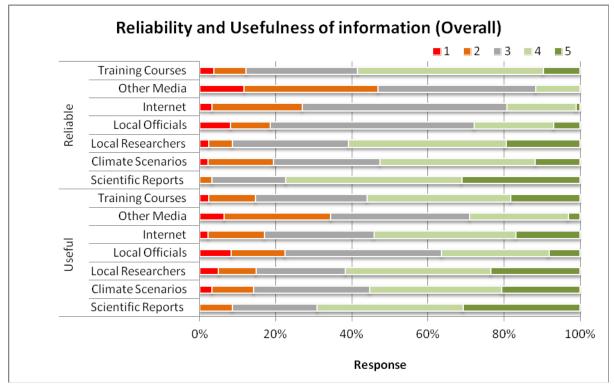


Figure 194: Usefulness and reliability of information sources based on all respondents.

#### 2e. Personally, do you think that you are well informed or not about...

Figure 195 and Figure 196 depict the respondents' level of awareness about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The German result showed that "fairly well" was the most abundant answer for all categories. A high percentage of the respondents considered that they were at least fairly well informed about all these areas. The causes of climate change had the highest response of at least "fairly well" answers (97%) and chances of climate change the lowest (60%).







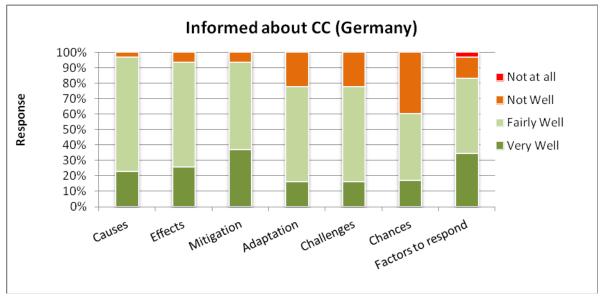


Figure 195: Illustrate how well German respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered to be most informed about effects of climate change, 87% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 8%.







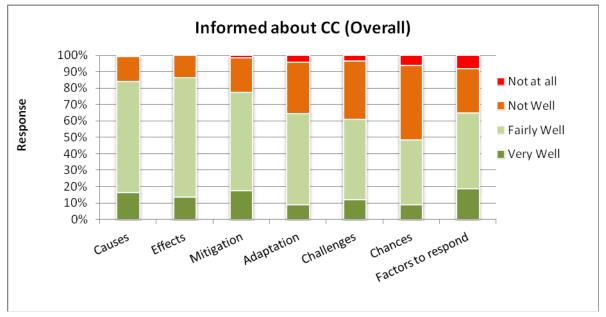


Figure 196: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

#### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 197 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected. The German result showed that 77% of the respondents consider that BalticClimate have resulted in raised awareness. "Establish contacts" was the second highest rated effect followed by "increased personal competence".

13% thought that BalticClimate has not had any specific effects at all. The German result does not show the exact same pattern as the overall result, personal competence and establish contact switched places in how many that considers those as effects.







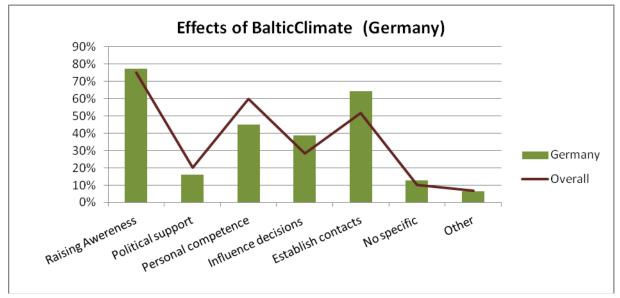


Figure 197: The figure show what effects the German and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

# 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. The German result showed that well over the majority, 73%, have plans to continue to work with climate change challenges and chances in their organizations after BalticClimate, Figure 198. None of the German respondents answered that they will not continue, however, about 27% answered that they don't know if they will continue. The overall result also showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 10% will not and the rest do not know.







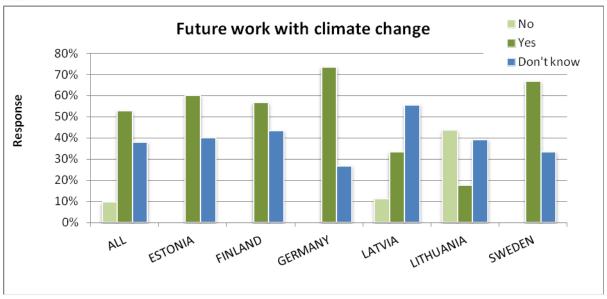


Figure 198: The respondents answer if they have plans to work with climate change challenges and chances after BalticClimate.

# 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Germany are presented in Figure 199. The inventory analysis of challenges and chances had the highest frequency of respondents answering it to be very useful (6 and 7). This activity was closely followed by Sustainable development guidelines. The urban structure maps had the lowest percentage of 6 and 7 responses, however, the difference between the activities was very small.

The overall result, Figure 200, showed that the sustainable development guidelines and the work in the local/regional groups were the two activates with highest frequency of respondents considering it to be very useful. The rate was in general higher in the overall than for the German result. The overall result also showed very small difference between the activity with highest mean value and the one with lowest. The urban structure maps had the lowest mean value of usefulness, 4,6, and sustainable development guidelines had the highest mean value of usefulness, 5,4.







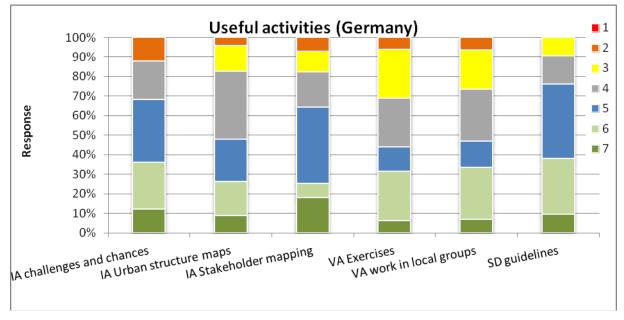


Figure 199: These are the results for German target area. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 12-35 % answered "don't know" depending on type of activity.

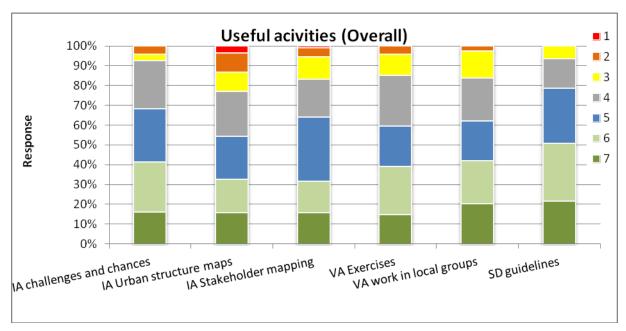


Figure 200: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-33% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 201 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The German results show some patterns, the response of seriousness of today's consequences are most frequently considered to be 3 on the scale to 7. The most frequent answer for the seriousness in 20 years was 5 to 6. German respondents considered consequences in 100 years to be higher than today and in 20 years, 7 was the most frequent answer.

The overall result clearly demonstrates the tendency of the German result. The seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

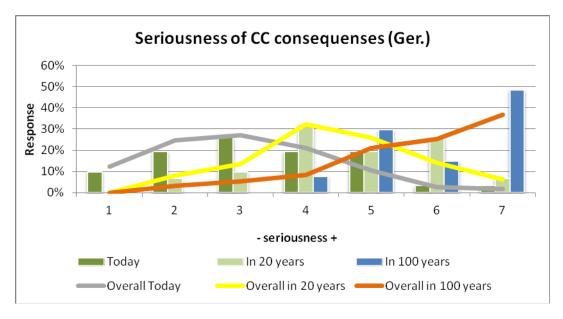


Figure 201: How respondents (German and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-31 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways in which they mitigate climate change, and (3) - ways in which they can adapt to climate change.







87% of the German respondents answered that their organisation currently work actively with climate change and 81% that their present work position include issues related to climate change. In 2009, 67% of the German respondents answered that their organisation integrates the issue of climate change into their development activities. Overall targets were set after the first survey for the three indicators, the first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, seeTable 18. Thus, the percentage of German BalticClimate organisations that actively work with climate change is indicated to have increased and the German target area reached the target alone. The overall result did not reach the target of 71%. It is hard to draw any conclusions from the result and comparisons since it, in the overall result and in some of the target area result, is such small difference between the years together with the fact that about two thirds of the respondents did not answer the questionnaire in 2009, there is a tendency of increased organisations working actively with climate change.

Table 18: Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

| Is vour | organisation | currently | working | actively | with | climate | change? |
|---------|--------------|-----------|---------|----------|------|---------|---------|
| is your | organisanon  | currently | WUIKING | ucuveiy  | wuuu | cumuie  | chunge: |

| Respondents Baseline |      |      | Target |  |
|----------------------|------|------|--------|--|
|                      | 2009 | 2011 |        |  |
| Germany              | 67%  | 87%  | 71%    |  |
| Overall              | 61%  | 69%  | 71%    |  |

94% of the German respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is a higher value compared to the last survey result (67%). The overall result for mitigation has increased with 17 percentage points; however the target is not met yet. Regarding adaptation to climate change, the result indicates that something has happened. 40% of the German respondents in 2009 considered that they were well informed about ways to adapt to climate change. In this survey 77% of the German respondents considered that they are well informed about adaptation; this is well over the target of 57%, Table 19. All three targets were met when studying the German results alone. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change has increased considerably as well, from 37% to 65%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.

Table 19: Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

|             | Do you think you are well informed about? |  |                  |                 |        |  |
|-------------|---|--|------------------|-----------------|--------|--|
|             | the ways in which climate change          | the ways in which you can adapt climate change |                  | ou can adapt to |        |  |
| Respondents | Baseline<br>2009 2011                     | Target   | Baseline<br>2009 | 2011            | Target |  |







| Germany | 62% | 94% | 81% | 40% | 77% | 57% |
|---------|-----|-----|-----|-----|-----|-----|
| Overall | 64% | 78% | 81% | 37% | 65% | 57% |







### **Appendix**

Table 20 describes responses received from each target area. The table show that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 20 when interpreting the results the weight of individual answers is not diminished.

Table 20: Response rates

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
|           | No.         | No.       | % of distributed in TA | % of overall response |
| Estonia   | 120         | 15        | 13%                    | 13%                   |
| Finland   | 136         | 31        | 23%                    | 26%                   |
| Germany   | 122         | 31        | 25%                    | 26%                   |
| Latvia    |             | 9         |                        | 8%                    |
| Lithuania | 41          | 25        | 61%                    | 21%                   |
| Sweden    | 40          | 9         | 23%                    | 8%                    |
| Total     | ≥459+9      | 120       | 26%                    | 100%                  |

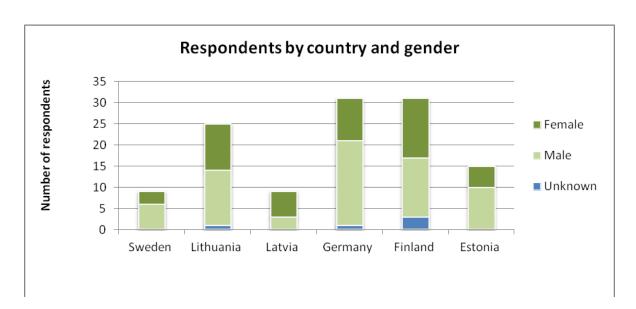


Figure 202: Total respondents by country and gender

Figure 202 describes gender division differences in the participating countries. In general there was a higher male response, however in Latvia there was slightly more females responding and in Finland equally many males and females responded.







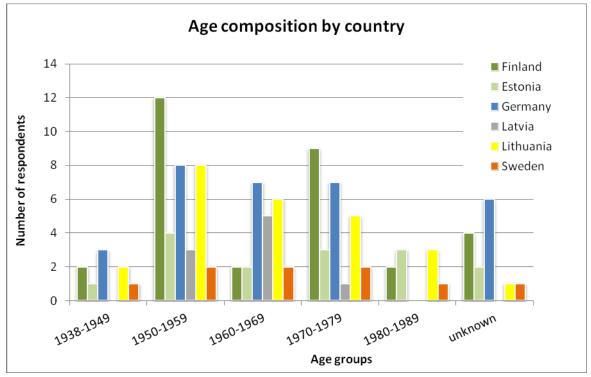


Figure 203: Age division of respondents by country

The age division of respondents by country in Figure 203 is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.



Figure 204: Overall roles by gender

About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 204 show the gender distribution for different roles. There is quite equal distribution of gender except for the target area group. Three of four groups







(excluding other role) have a higher number of males than females, but again, the males were over represented.





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### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix N - Questionnaire Results Second Round, Lithuanian Target Area

### **April, 2011**

Author:

Lotten Wiréhn, Centre for Climate Science and Policy Research – Water and environmental studies, Linköping University



# Centre for Climate Science and Policy Research







### **Introduction and summary**

This document presents an overview of the results from the questionnaire distributed in February 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders, the first survey was done in spring 2009. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first part of this report consists of a target area specific overview of the results. The second part consists of a short reflection of the indicator questions, the results from this questionnaire are compared to results of 2009 and to the targets set up after the first questionnaire. The last part consists of an appendix describing the general characteristics of the respondents.

Out of 41 questionnaires distributed to Lithuanian partners, 25 persons responded. In total, 120 responses were received. The Lithuanian response, hence, contributed with 21% of the overall response stock. The response rates varied from country to country. Lithuania which contributed with 21% of the total response has more influence over end-results than, for example, Sweden which contributed with 8% of total response. By keeping this in mind, the weight of individual answers is not diminished. 76% the Lithuanian respondents answered the questionnaire in 2009, this is a high value compared to the total response were. Only 34% of the total response answered in the questionnaire in 2009 as well.

The three types of respondents (Work Package involved, Target Area involved and BalticClimate Stakeholder) were all well represented in the Lithuanian response. Work package involved, though, was the most frequently answered role of the Lithuanian respondents. 46% of the Lithuanian respondents answered that their organisation currently work actively with climate change and 28% that their present work position include issues related to climate change. In 2009, 52% of the respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

48% of the Lithuanian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is a higher percentage than in from the last survey results (35%). Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the respondents in 2009 (23%) considered that they were well informed about ways to adapt to climate change, this survey result shows that 43% consider that they are well informed about adaptation.







**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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8

### **Country specific overview of perceptions**

### 1e. Are you personally...?

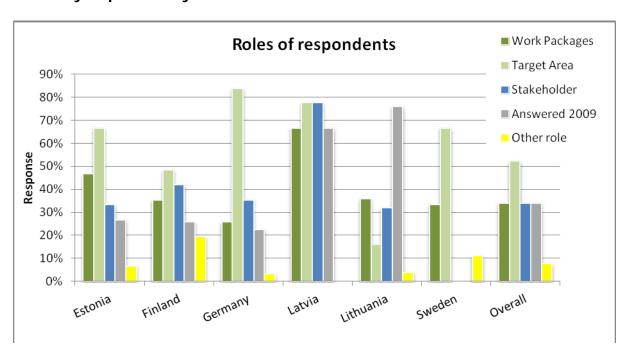


Figure 205: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 205 shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the persons that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the target areas except Lithuania. People participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had the same percentage of representation. 36% of all respondents replied that they also answered the last BalticClimate questionnaire in 2009. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

### 2a. Is your organisation currently working actively with climate change?

Figure 206 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change is highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian and Lithuanian respondents show somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







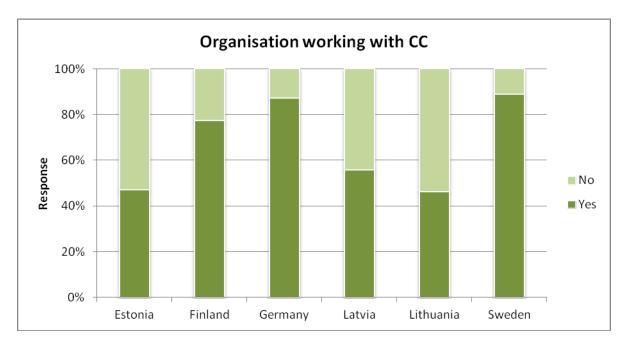


Figure 206: Percentage of respondents' organizations working actively with Climate change (CC)

### 2b. Does your present work position include issues related to climate change?

Question 2b asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 207. The result show the same tendency as Figure 206; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44% and 28% respectively.







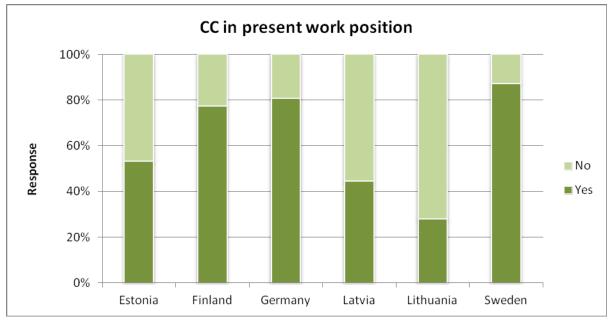


Figure 207: The percentage of the respondents that have a work position that include issues related to climate change

## 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 208 and Figure 209 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable source of Lithuanian respondents was considered to be scientific reports, 63% of the respondents considered this as a 4 or 5 on the scale. Training courses and local researchers were considered to be the second highest reliable, 57% each considered these sources as a 4 or 5 on the scale. Internet, local officials and other media had the lowest percentage of 4 and 5 answers. In general, the same pattern was true for how the respondents considered usefulness of information sources. Lithuanian respondents considered scientific reports to be the most useful information, however, climate scenarios had the second highest percentage of 4 and 5 rakings which was not the case for reliability.







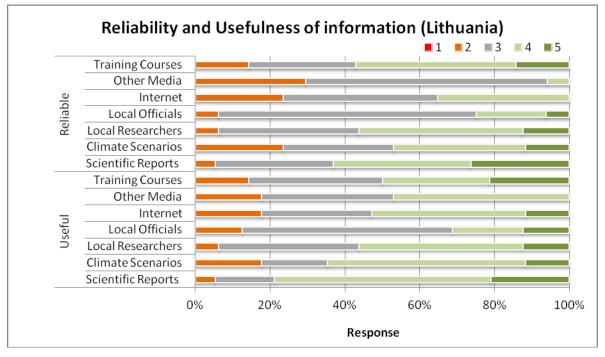


Figure 208: Usefulness and reliability of information sources according to Lithuanian TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

#### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 6 or 7. "Training courses" was considered the second most reliable source and "other media" the least reliable. Scientific reports were also considered to be the most useful sources of information. Local researchers had the second highest percentage of 6 and 7 rankings on the usefulness scale. Other media was considered least useful.







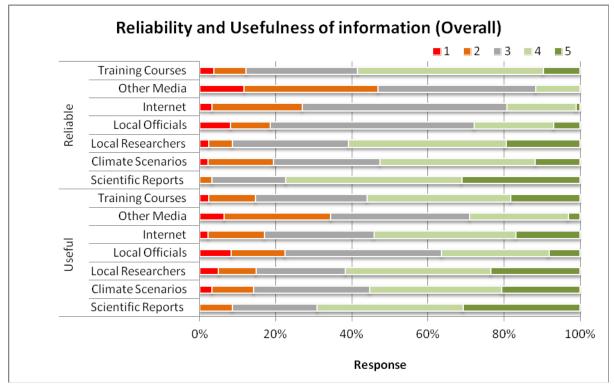


Figure 209: Usefulness and reliability of information sources based on all respondents.

### 2e. Personally, do you think that you are well informed or not about...

Figure 210 and Figure 211 depict the respondents' level of awareness about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The Lithuanian respondents showed to be most informed about the effects of climate change (78%), closely followed by causes of climate change (69%). Regarding mitigation, adaptation, challenges, chances and factors to respond, about the same percentage of respondents answered that they were fairly well or very well informed about this; ranging from 36% (challenges of climate change) to 48% (mitigation).







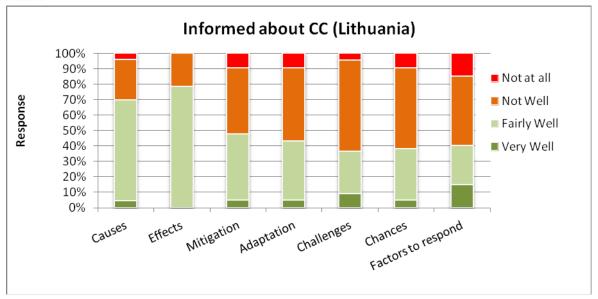


Figure 210: Illustrate how well Lithuanian respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered to be most informed about effects of climate change, 87% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 8%.







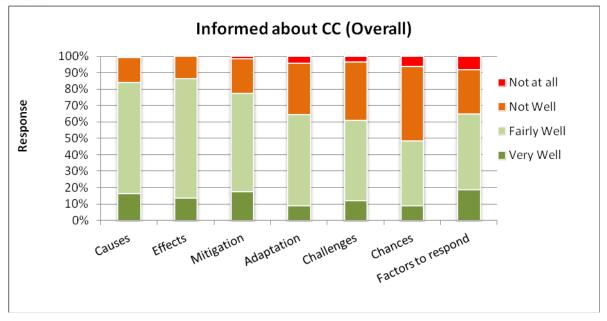


Figure 211: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 212 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected. The Lithuanian result showed that 80% of the respondents consider that BalticClimate have resulted in raised awareness and 78% that it has increased personal competence. About half of the Lithuanian respondents also filled in "establishing contacts" as effects of BalticClimate. Only 12% considered that BalticClimate has gained political support, influenced decisions and has not had any effects at all. The result from the Lithuanian respondents show about the same pattern as the overall result, however the values differ rather much.







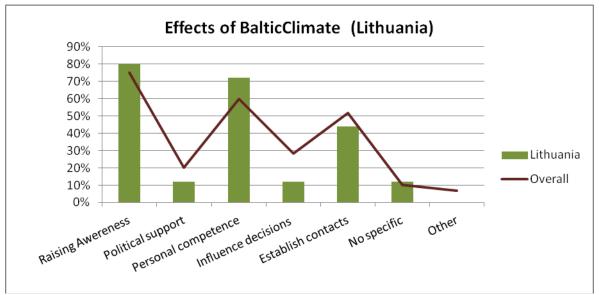


Figure 212: The figure show what effects the Lithuanian and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

# 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. The Lithuanian result showed most of them do not have plans to continue to work with climate change challenges and chances in their organizations after BalticClimate, 43%, Figure 213. Only 17% answered that they will continue and 39% of the Lithuanians answered that they don't know. The overall result also showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 10% will not and the rest do not know.







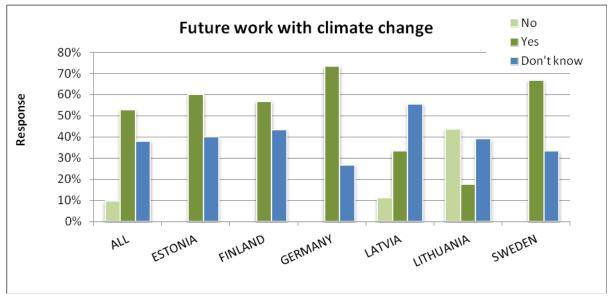


Figure 213: The respondents answer if they have plans to work with climate change challenges and chances after Raltic Climate

# 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Lithuania are presented in Figure 214. "Sustainable development guidelines" was the activity with highest frequency of respondents answering it to be very useful, followed by "work in the local/regional groups" (as a part of the vulnerability analysis) and the inventory analysis of challenges and chances. The "urban structure maps" and "shareholder mapping" had the lowest percentage of 6 and 7 rankings.

The overall result, Figure 215, also showed that the sustainable development guidelines and the work in the local/ regional groups were the two activates with highest frequency of respondents considering it to be very useful. The overall result showed very small difference between the activity with highest mean value and the one with lowest. Except from "other activity" the urban structure maps had the lowest mean value of usefulness, 4,6, and sustainable development guidelines had the highest mean value of usefulness, 5,4.







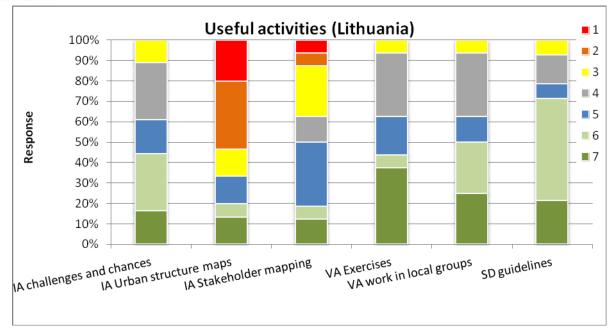


Figure 214: These are the results for Lithuanian target area. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 12-35 % answered "don't know" depending on type of activity.

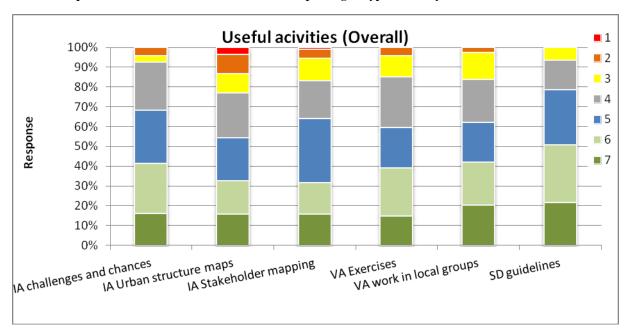


Figure 215: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-33% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 216 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The Lithuanian results showed a clear pattern, the response of seriousness of today's consequences are most frequently considered to be 4 on the scale to 7. The seriousness in 20 years was most frequently answered to be 4 as well. The median of these two do however differ being, 3 and 4, respectively. The consequences in 100 years was considered by the Lithuanians to be higher than today and in 20 years, 6 and 7 were the two most frequent answers, with median of 6.

The overall result clearly demonstrates the tendency of Lithuanian answers. The seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

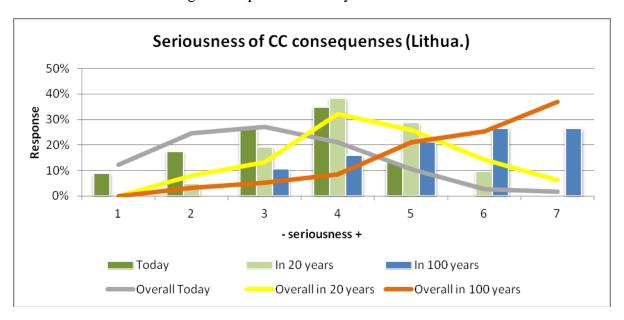


Figure 216: How respondents (Lithuanian and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-31 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways in which they mitigate climate change, and (3) - ways in which they can adapt to climate change.







46% of the Lithuanian respondents answered that their organisation currently work actively with climate change and 28% that their present work position include issues related to climate change. In 2009, 52% of the respondents answered that their organisation integrates the issue of climate change into their development activities. Overall targets were set after the first survey for the three indicators, the first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, seeTable 21. Thus, the percentage of Lithuanian respondents answering that their organisation is actively working with climate change has decreased and the target was not met. The overall result did not reach the target of 71% either. It is hard to draw any conclusions from the results and comparisons since it, in the overall result and for some target area result, is such small difference between the years together with the fact that it is not the same group of respondents as in 2009.

Table 21: Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

| Is vour | organisation    | currently | working      | actively wit  | h climate | change? |
|---------|-----------------|-----------|--------------|---------------|-----------|---------|
| 15,000  | or Swittswitter |           | ,, 0, ,,,,,, | coccer ce, me |           |         |

| Respondents | ents Baseline |      | Target |  |
|-------------|---------------|------|--------|--|
|             | 2009          | 2011 |        |  |
| Lithuania   | 52%           | 46%  | 71%    |  |
| Overall     | 61%           | 69%  | 71%    |  |

48% of the Lithuanian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this a higher percentage that from the last survey 2009 (35%). The overall result for mitigation has increased from 61% to 78% however the target of 81% is not met yet. Regarding adaptation to climate change, the result indicates that something has happened. Fairly low percentage of the Lithuanian respondents in 2009 (23%) considered that they were well informed about ways to adapt to climate change. This survey result shows that 43% of Lithuanian respondents consider that they are well informed about adaptation; this is slightly below the target of 57%,







Table 22. Even though none of three targets was met for Lithuania alone, the development is indicated to be in the right way. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change has increased considerably as well, from 37% to 65%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.







Table 22: Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

|             | the wa   | •    | you mitigate | d about?the ways in which you can adapt climate change |      |          |
|-------------|----------|------|--------------|--|------|----------|
| Respondents | Baseline |      | Target       | Baseline   |      | Target   |
| •           | 2009     | 2011 | Ö            | 2009   | 2011 | <u> </u> |
| Lithuania   | 35%      | 48%  | 81%          | 23%  | 43%  | 57%      |
| Overall     | 64%      | 78%  | 81%          | 37%  | 65%  | 57%      |







### **Appendix**

Table 23 describes responses received from each target area. The table show that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 23 when interpreting the results the weight of individual answers is not diminished.

**Table 23: Response rates** 

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
|           | No.         | No.       | % of distributed in TA | % of overall response |
| Estonia   | 120         | 15        | 13%                    | 13%                   |
| Finland   | 136         | 31        | 23%                    | 26%                   |
| Germany   | 122         | 31        | 25%                    | 26%                   |
| Latvia    |             | 9         |                        | 8%                    |
| Lithuania | 41          | 25        | 61%                    | 21%                   |
| Sweden    | 40          | 9         | 23%                    | 8%                    |
| Total     | ≥459+9      | 120       | 26%                    | 100%                  |

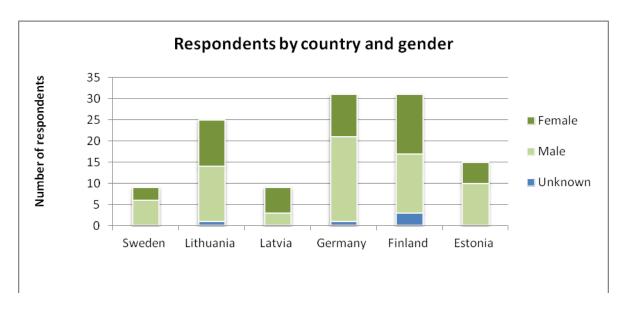


Figure 217: Total respondents by country and gender

Figure 217 describes gender division differences in the participating countries. In general there was a higher male response, however in Latvia there was slightly more females responding and in Finland equally many males and females responded.







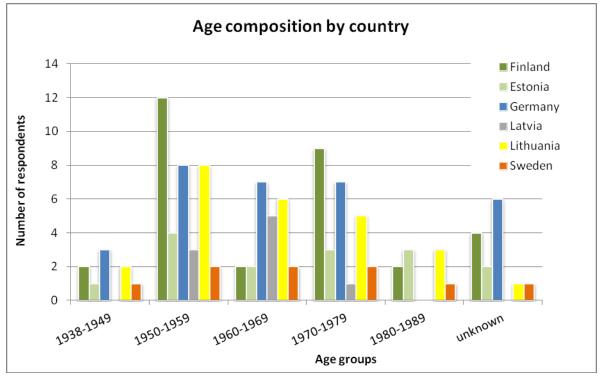


Figure 218: Age division of respondents by country

The age division of respondents by country in Figure 218 is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.



Figure 219: Overall roles by gender

About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 219 show the gender distribution for different roles. There is quite equal distribution of gender except for the target area group. Three of four groups



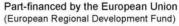




(excluding other role) have a higher number of males than females, but again, the males were over represented.









### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix O - Questionnaire Results Second Round, Swedish Target Area

### **April**, 2011

Author:

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# Centre for Climate Science and Policy Research







### **Introduction and summary**

This document presents an overview of the results from the questionnaire distributed in February 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders, the first survey was done in spring 2009. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first part of this report consists of a target area specific overview of the results. The second part consists of a short reflection of the indicator questions, the results from this questionnaire are compared to results of 2009 and to the targets set up after the first questionnaire. The last part consists of an appendix describing the general characteristics of the respondents.

Out of 40 distributed questionnaires in Sweden's target area, 9 persons responded. In total, 120 responses were received from all target areas. The Swedish response, hence, contributed with 8% of the overall response stock. The response rates varied from country to country. For example, Germany which contributed with 26% of the total response has more influence over end-results than Swedish which contributed with 8% of total response. By keeping this in mind, the weight of individual answers is not diminished. Unfortunately, none of the Swedish respondents answered the survey in 2009 as well. In the total response, 34% of the respondents answered in the questionnaire in 2009 as well.

The roles of respondents were identified in the questionnaire (Work Package involved, Target Area involved and BalticClimate Stakeholder). Only two of the three roles were represented in the Swedish response. Target area involved was the most frequently answered role of the Swedish respondents. 89% of the Swedish respondents answered that their organisation currently work actively with climate change and 88% that their present work position include issues related to climate change. In 2009, 94% of the respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

89% of the Swedish respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is slight decrease compared to the last survey results (100%). Regarding adaptation to climate change a high percentage of the respondents in 2009 (94%) considered that they were well informed about ways to adapt to climate change; this survey result showed that 55% considered that they are well informed about adaptation.







**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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### **Country specific overview of perceptions**

### 1e. Are you personally ...?

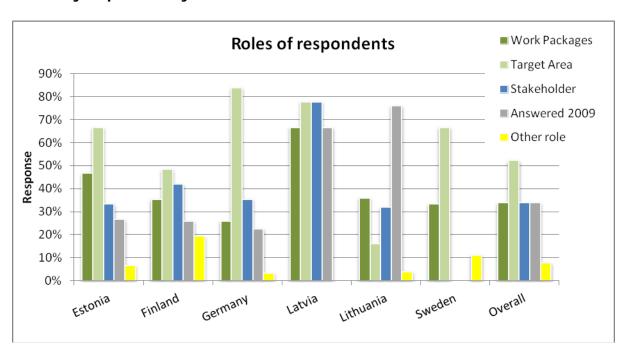


Figure 220: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 220 shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the persons that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the target areas except Lithuania. People participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had the same percentage of representation. 36% of all respondents replied that they also answered the last BalticClimate questionnaire in 2009. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

### 2a. Is your organisation currently working actively with climate change?

Figure 221 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change is highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian and Lithuanian respondents show somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







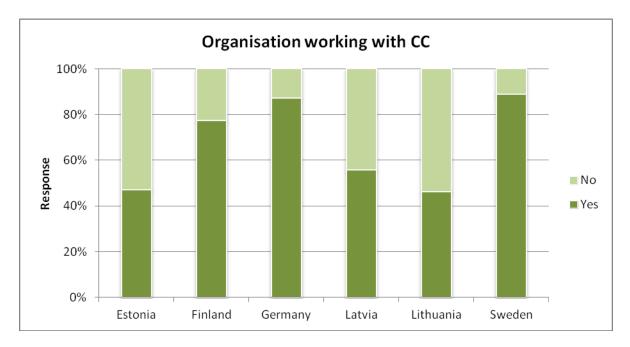


Figure 221: Percentage of respondents' organizations working actively with Climate change (CC)

### 2b. Does your present work position include issues related to climate change?

Question 2b asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 222. The figure illustrate the same tendency as Figure 221; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44% and 28% respectively.







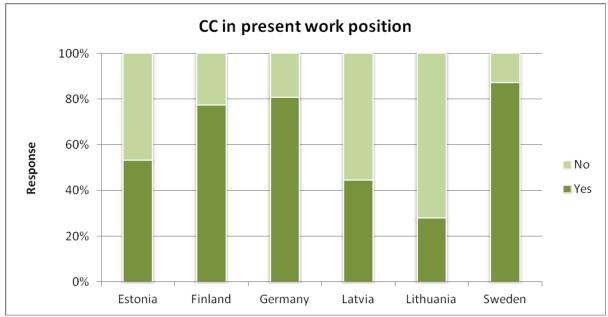


Figure 222: The percentage of the respondents that have a work position that include issues related to climate change

## 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 223 and Figure 224 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable source was considered by the Swedish to be scientific reports, 75% of the respondents put this to 4 or 5 on the scale. Climate scenarios were considered to be the second highest reliable, 63% considered this as a 4 or 5 on the scale. Training courses, other media and internet were the three least reliable sources accoutring to the Swedish responses. The same pattern was not true for the usefulness of sources. Local officials, internet and local researchers had the highest percentage of 4 and 5 rankings. Training courses was considered the least useful.







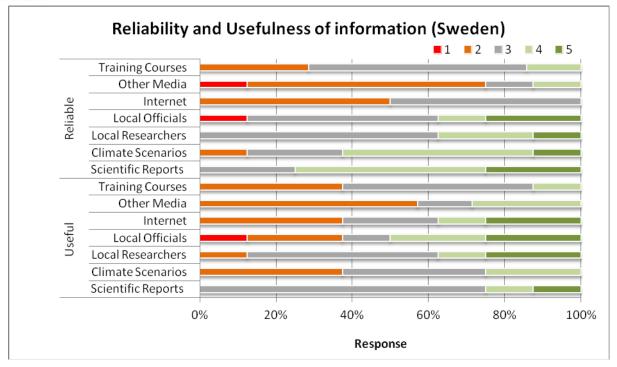


Figure 223: Usefulness and reliability of information sources according to Swedish TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 6 or 7. "Training courses" was considered the second most reliable source and "other media" the least reliable. Scientific reports were also considered to be the most useful sources of information. Local researchers had the second highest percentage of 6 and 7 rankings on the usefulness scale. Other media was considered least useful.







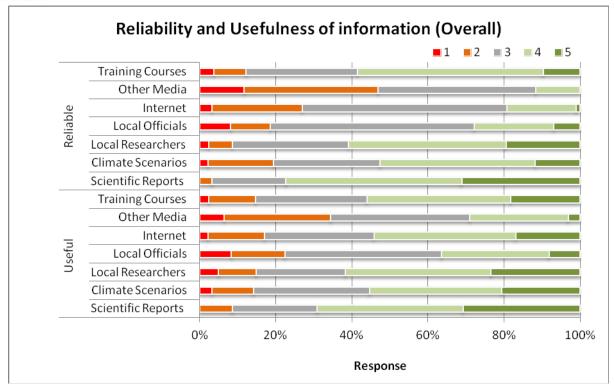


Figure 224: Usefulness and reliability of information sources based on all respondents.

#### 2e. Personally, do you think that you are well informed or not about...

Figure 225 and Figure 226 depict the respondents' level of awareness about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. A high percentage (89%) of the Swedish respondents considered themselves to be at least fairly well informed about causes, effects, mitigation and challenges of climate change. A lower percentage answered that they were well informed about adaptation, chances and factors to respond (around 50%).







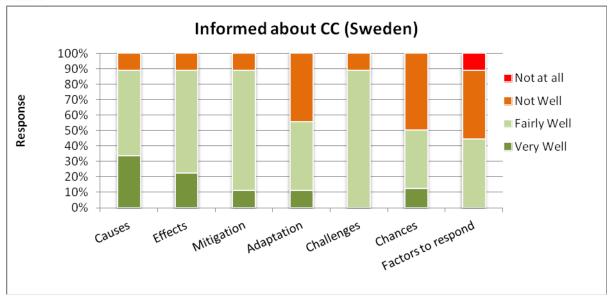


Figure 225: Illustrate how well Swedish respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered to be most informed about effects of climate change, 87% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 8%.







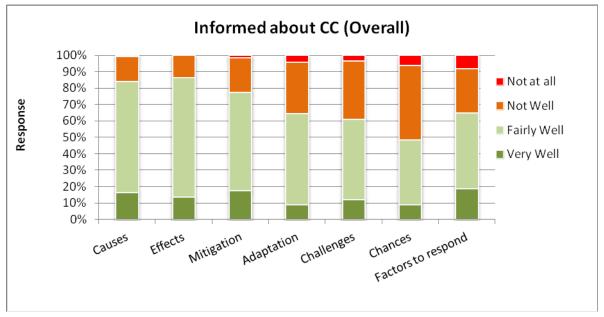


Figure 226: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

#### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 227 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected.78% of the Swedish respondents considered that BalticClimate have resulted in raised awareness and 44% that it has gained political support, 11% thought that BalticClimate has not had any specific effects at all. The overall result was not the same as the Swedish and the pattern did not match. "Raised awareness" had the highest percentage in the overall result as well but also "personal competence" and "establish contacts" had high percentages which were not true for the Swedish result.







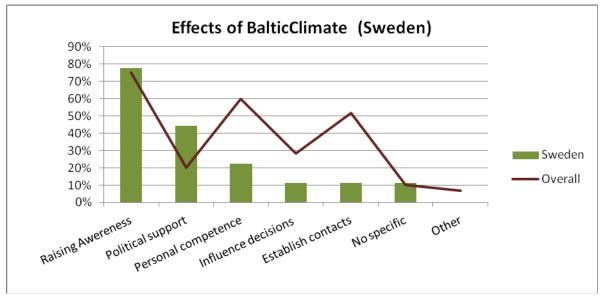


Figure 227: The figure show what effects the Swedish and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

## 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. The Swedish result showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, Figure 228. None of the respondents answered that they will not continue, however, 33% answered that they don't know. The overall result, including respondents from all target areas, also showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 10% will not and the rest do not know.







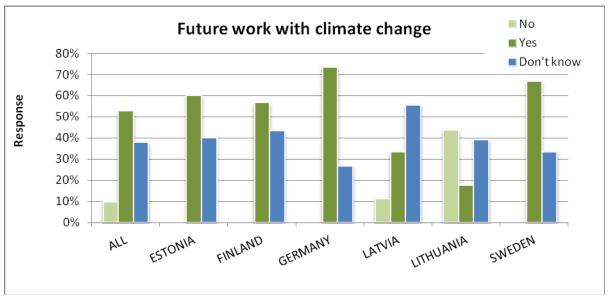


Figure 228: The respondents answer if they have plans to work with climate change challenges and chances after BalticClimate.

## 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Sweden's Target area are presented in Figure 229. Urban structure maps and the vulnerability exercises were the only two activities that had 6 or 7 rankings, with the "urban structure maps" considered most useful.

The overall result showed much higher percentages of BalticClimate activities being useful, Figure 230. The sustainable development guidelines and the work in the local/regional groups were the two activates with highest frequency of respondents considering it to be very useful. The overall result showed very small difference between the activity with highest mean value and the one with lowest. The urban structure maps had the lowest mean value of usefulness, 4,6, and sustainable development guidelines had the highest mean value of usefulness, 5.4.







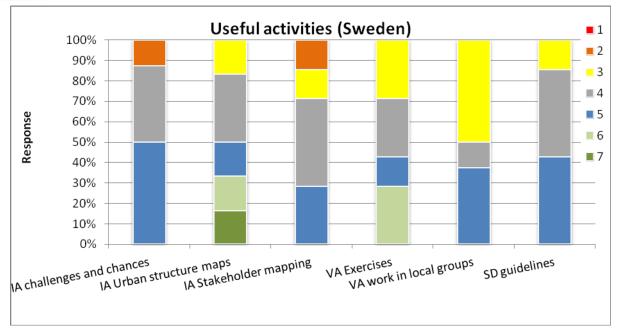


Figure 229: These are the results for Sweden's target area. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 12-35 % answered "don't know" depending on type of activity.

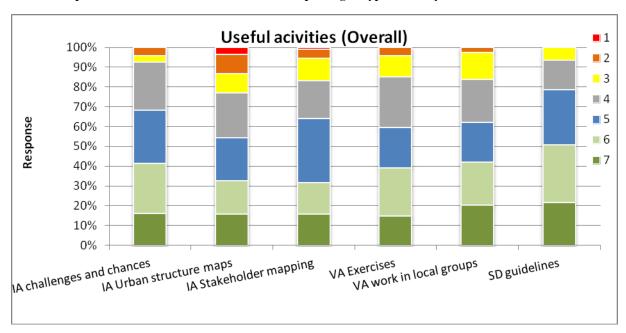


Figure 230: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-33% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 231 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The Swedish results show quite clear patterns, the result shows that the response of seriousness of today's consequences are most frequently considered to be 3 on the scale to 7. The seriousness in 20 years was most frequently considered to be a 5. The Swedish respondents considered the seriousness of the climate change consequences in 100 years to be very high, 50% ranked it to 7.

The same pattern as for the Swedish TA appeared for the overall result. The seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

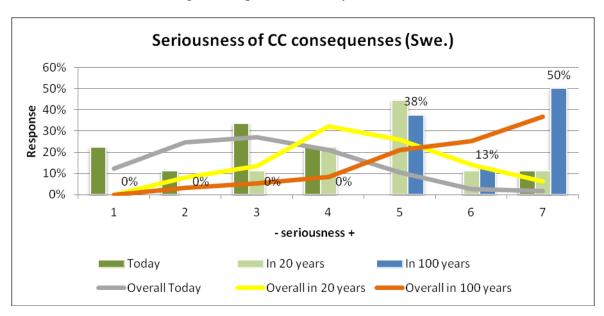


Figure 231: How respondents (Swedish and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-31 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways in which they mitigate climate change, and (3) - ways in which they can adapt to climate change.



Overall





89% of the Swedish respondents answered that their organisation currently work actively with climate change and 88% that their present work position include issues related to climate change. In 2009, 94% of the respondents answered that their organisation integrates the issue of climate change into their development activities. Overall targets were set after the first survey for the three indicators, the first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, see Table 24. Any conclusions cannot be drawn from this decrease since none of the respondents answered in 2009. The overall result, result did not reach the target of 71%. But again, any accurate conclusion of result and comparisons could not be done due to the fact that only about one third of the respondents also answered in 2009.

Table 24: Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

61%

| Is your organisation currently working actively with climate change? |      |      |     |  |  |  |  |
|--|------|------|-----|--|--|--|--|
| Respondents Baseline Target  |      |      |     |  |  |  |  |
| _  | 2009 | 2011 | _   |  |  |  |  |
| Sweden   | 94%  | 89%  | 71% |  |  |  |  |

71%

89% of the Swedish respondents answered that they were either fairly well or very well informed about ways in which climate change can be mitigated, this is below the rate of the last survey result, then 100%. The overall result for mitigation has increased with 17 percentage points; however the target is not met yet. Regarding adaptation, the result shows that 55% of Swedish respondents consider that they are well informed about adaptation, in 2009, 94% answered that they were informed about how to adapt to climate change, Table 25. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change has increased considerably as well, from 37% to 65%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.

Table 25: Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

|             | Do you t | Do you think you are well informed about?     |        |          |   |        |  |  |
|-------------|----------|---|--------|----------|---|--------|--|--|
|             | •        | the ways in which you mitigate climate change |        |          | the ways in which you can adapt to climate change |        |  |  |
| Respondents | Baseline |   | Target | Baseline |   | Target |  |  |
|             | 2009     | 2011  |        | 2009     | 2011  |        |  |  |
| Sweden      | 100%     | 89%   | 81%    | 94%      | 55%   | 57%    |  |  |
| Overall     | 64%      | 78%   | 81%    | 37%      | 65%   | 57%    |  |  |







#### **Appendix**

Table 26 describes responses received from each target area. The table show that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 26 when interpreting the results the weight of individual answers is not diminished.

**Table 26: Response rates** 

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
|           | No.         | No.       | % of distributed in TA | % of overall response |
| Estonia   | 120         | 15        | 13%                    | 13%                   |
| Finland   | 136         | 31        | 23%                    | 26%                   |
| Germany   | 122         | 31        | 25%                    | 26%                   |
| Latvia    |             | 9         |                        | 8%                    |
| Lithuania | 41          | 25        | 61%                    | 21%                   |
| Sweden    | 40          | 9         | 23%                    | 8%                    |
| Total     | ≥459+9      | 120       | 26%                    | 100%                  |

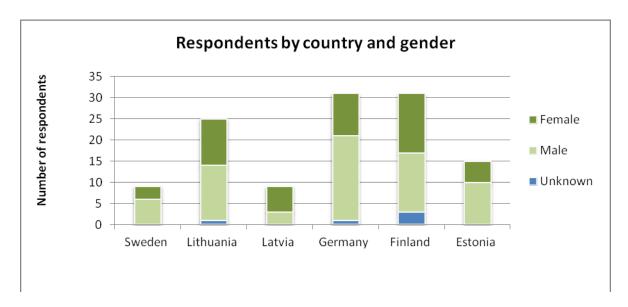


Figure 232: Total respondents by country and gender

Figure 232 describes gender division differences in the participating countries. In general there was a higher male response, however in Latvia there was slightly more females responding and in Finland equally many males and females responded.







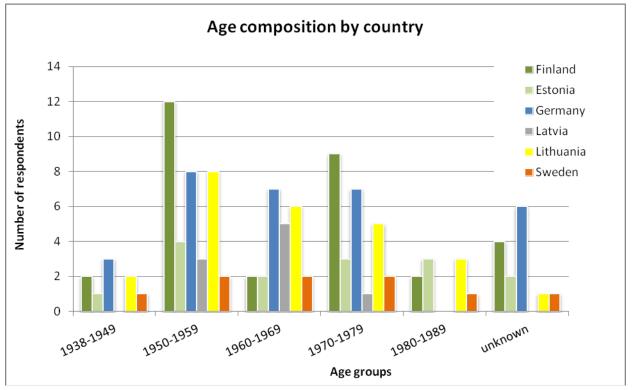


Figure 233: Age division of respondents by country

The age division of respondents by country in Figure 233 is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.

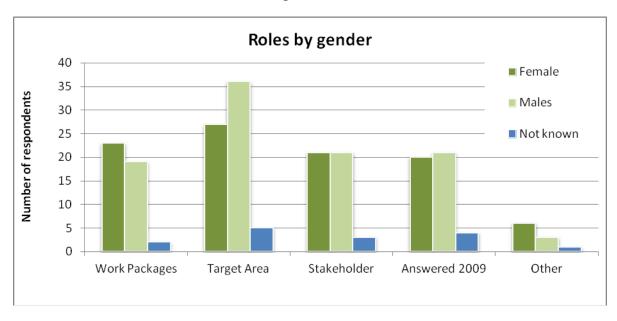


Figure 234: Overall roles by gender

About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 234 show the gender distribution for different roles. There



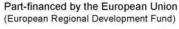




is quite equal distribution of gender except for the target area group. Three of four groups (excluding other role) have a higher number of males than females, but again, the males were over represented.









### "Baltic Challenges and Chances for local and regional development generated by Climate Change"

Appendix P - Questionnaire Results Second Round, Russian Target Area

July, 2011

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# Centre for Climate Science and Policy Research







#### **Introduction and summary**

This document presents an overview of the results from the questionnaire distributed to Russian Target area in March 2011. This is the second questionnaire sent out to BalticClimate participants and stakeholders. The intension was to survey where the organisations and local areas currently stand in respect to actively working with climate adaptation and mitigation as well as evaluate whether the activities and experiences undertaken in BalticClimate have been useful.

The first survey was done in autumn 2010 for the Russian Target Area and in spring 2009 for the rest of the Target Areas. The Russian Target area was included later than the others and therefore surveyed later than the others<sup>4</sup>. In the overall result of questionnaire 2009/2010, the Russian result is not included. However in this report the Russian result has been included in the overall.

The first part of this report consists of a target area specific overview of results, including overall result as well. The intension with the second part is to shortly reflect on the indicator questions, compare the results from this questionnaire to results of 2010 and to compare with the targets set up after the first round in spring 2009. However, since Russian was not a part of the first round 2009 and there was so short time between the two surveys these comparisons might not be as important. Nevertheless the results are although included in the report. The last part of the report consists of an appendix describing the general characteristics of the respondents.

It is unknown how many questionnaires that were distributed to the Russian Target Area, although, 30 persons responded. The questionnaires' second round received 150 responses in total. The Russian response, hence, contributed with 20% of the overall response stock. The response rates varied from country to country. Russia which contributed with 20% of the total response had more influence over end-results than, for example, Sweden which contributed with 6% of total response. By keeping this in mind, the weight of individual answers is not diminished. About one third of the total response also answered the first round's questionnaire. It should also be noticed that the overall result of the first round do not include Russian answers whereas the overall result for the second round includes Russian answers. These are two reasons why it is not possible to draw any truthful conclusions from the comparison of the two surveys.

The three types of respondents (Work Package involved, Target Area involved and BalticClimate Stakeholder) were all represented in the Russian response. Target area involved, though, was the most frequently answered role of the Russian respondents. 50% of the Russian respondents answered that their organisation currently work actively with climate

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<sup>&</sup>lt;sup>4</sup> The analyses and reports for the other Target Areas were done before the result of the Russian Target Area. The overall result of this report will therefore differ somewhat to the overall result in the other Target Area reports.







change and 37% that their present work position include issues related to climate change. In autumn 2010, 7% of the respondents answered that their organisation integrates the issue of climate change into their development activities. The overall target was that 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities.

40% of the Russian respondents answered that they are either fairly well or very well informed about ways in which climate change can be mitigated, this is about twice as many as in autumn 2010. Regarding adaptation to climate change, 30 % of the respondents answered that they are, at least, fairly well informed about how to adapt to climate change. This is 10 percentage points higher than autumn 2010.

**OBS**: No statistical tests were conducted on this material due to different circumstances. Hence, the tendencies and differences are not statistically significant.







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#### Country specific overview of perceptions

#### 1e. Are you personally...?

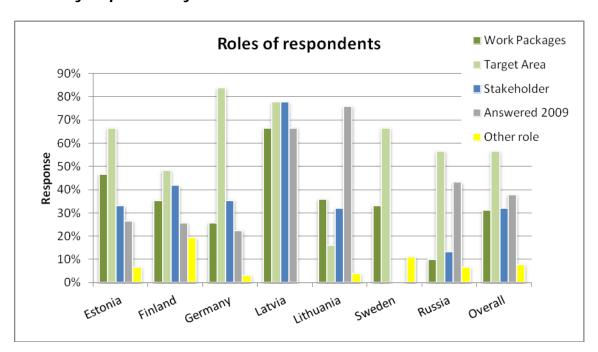


Figure 235: Roles of respondents in BalticClimate by country and rate of respondents answered the questionnaire in 2009.

Figure 235 shows the respondents' roles in the BalticClimate project. More than one role could be selected by the respondent. The overall result showed that the persons that have participated in Target Area project activities had the highest representation. This was also the highest represented role for each of the TA countries except Lithuania. People participating/participated in Work Packages had the highest representation in Lithuania. Overall, stakeholders and people involved in Work packages had about the same percentage of representation. 38% of all respondents replied that they answered the first round's survey. In the separate countries the rate of people answered 2009 varied from 0% in Sweden to 76 % in Lithuania.

#### 2a. Is your organisation currently working actively with climate change?

Figure 236 explains if the organisations of respondents are working actively with climate change today. The rate of respondents' organisation working with climate change is highest for Sweden (89%) followed by Germany (87%) and Finland (77%). Estonian, Latvian, Lithuanian and Russian respondents show somewhat less climate change activity in their organisations; about 50 % of the respondents for these countries work in organisation that actively works with climate change.







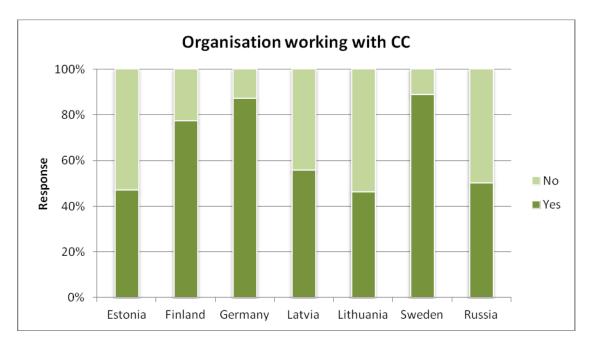


Figure 236: Percentage of respondents' organizations working actively with Climate change (CC)

## 2b. Does your present work position include issues related to climate change?

In question 2b it was asked whether the present work position of the respondent include issues related to climate change or not. The result is shown in Figure 237. The figure illustrates the same tendency as Figure 236; with Swedish, German and Finish respondents having the highest rate of climate change tasks in their personal work positions. Estonian, Latvian, Russian and Lithuanian respondents have a lower rate of climate change tasks in their personal work positions with 53%, 44%, 37 % and 28% respectively.







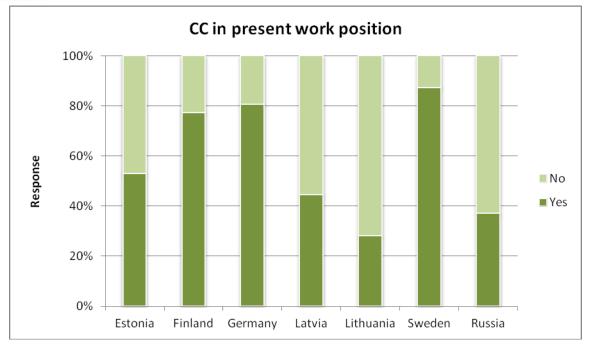


Figure 237: The percentage of the respondents that have a work position that include issues related to climate change

## 2d. What sources of information for climate change have you used or do you use and how trustworthy do you find them?

Figure 238 and Figure 239 depict usefulness and reliability of different information sources when it comes to climate change. Each source was evaluated by the respondent on a scale of 1-5 where 1 stands for "least useful" or "least reliable" and 5 "most useful" or "most reliable".

The most reliable sources for Russian respondents were considered to be Scientific Reports and Training Courses; 75 % and 54%, respectively, put these two sources to 4 or 5. Concerning the usefulness of information sources the same pattern as for reliability emerged; Scientific Reports and Training Courses were considered most useful, 67% and 63%, respectively, considered this as 4 or 5. However, Climate Scenarios and Local Researchers were also considered very useful by half of the respondent group.







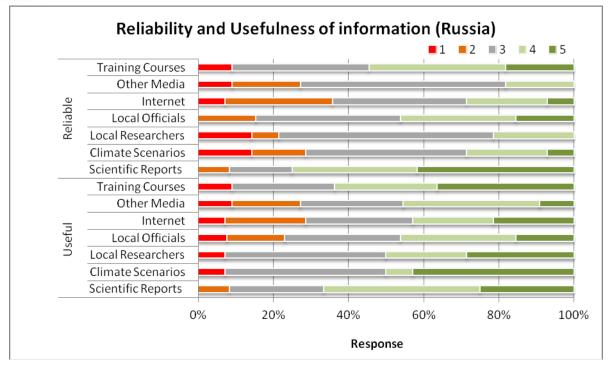


Figure 238: Usefulness and reliability of information sources according to Russian TA respondents. 1 means "least useful" or "least reliable" and 5 "most useful" or "most reliable".

#### **Overall respond for comparison:**

The overall result indicated that the most reliable sources of information was scientific reports, 77% of the respondents put this source to 4 or 5. Training Courses was considered the second most reliable source and Other Media the least reliable. Scientific Reports was also considered to be the most useful source of information. Local researchers had the second highest percentage of 4 and 5 rankings on the usefulness scale. Other media was considered least useful.







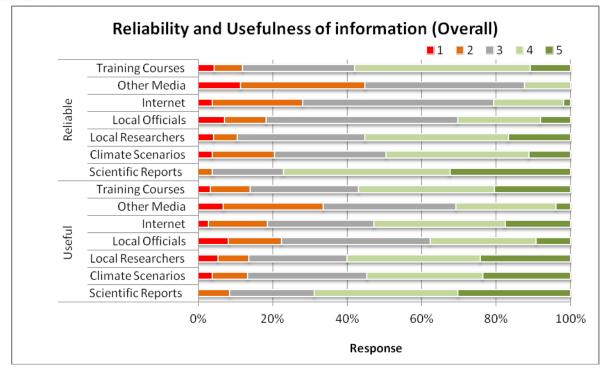


Figure 239: Usefulness and reliability of information sources based on all respondents.

#### 2e. Personally, do you think that you are well informed or not about...

Figure 240 and Figure 241 depict the respondents' perception of awareness level about causes, effects, mitigation and adaptation of climate change. The figures also show how the respondents believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The Russian result showed that "fairly well" was the most abundant answer for all categories. The respondents had a perception of being most informed about the effects of climate change and least informed about the chances and challenges with climate change.

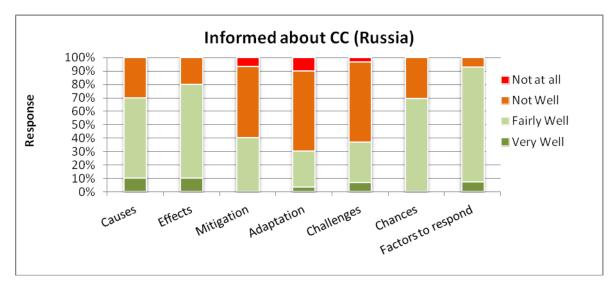


Figure 240: Illustrate how well Russian respondents believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances







of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know"; this was not included in the result since it was not the focus of the question.

#### **Overall perception for comparison:**

The overall result illustrate that "fairly well" is the most frequent answer on how well the respondent is informed about causes, effects, mitigation and adaptation of climate change but also how they are informed about challenges of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. The respondents considered to be most informed about effects of climate change, 85% answered that they were at least fairly well informed about effects. Factors that contribute to the organization's capacity to react on climate change had the highest frequency of "not informed at all" answers; 9%.

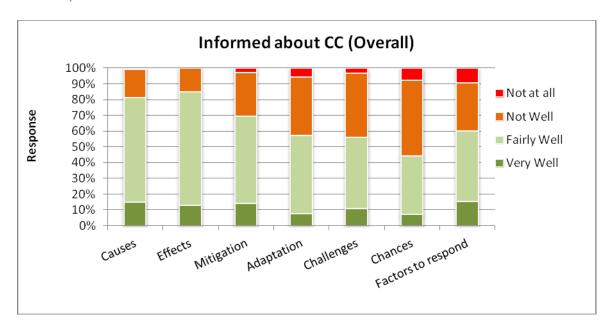


Figure 241: Illustrate how well the respondents (all included) believe they are informed about causes, effects, mitigation and adaptation of climate change, the figure also shows how they believe they are informed about challenges and chances of climate change in their local area and factors that contribute to their organization's capacity to respond to climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 1-7 % answered "don't know" depending on type of information.

#### 3e. Please indicate what effects you think BalticClimate have had so far

Figure 242 demonstrates what effects the respondents consider that BalticClimate have had so far, more than one answer could be selected. 97% of the Russian respondents considered that BalticClimate have resulted in raised awareness. About haft of the Russian respondents also filled in "influencing decision makes in the region", "establishing contacts" and "personal competence" as effects of BalticClimate. All of the respondents thought that BalticClimate have had any effect. The Russian result showed about the same pattern as the overall result.







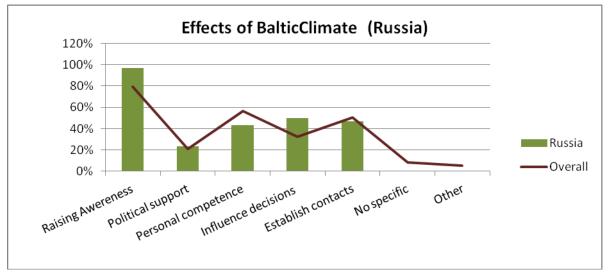


Figure 242: The figure show what effects the Russian and overall respondents consider that BalticClimate have had so far, the alternatives were: raising awareness of climate change in general, gaining political support or financial resources for the respondent's organization's work, developing personal skills/competence for the respondent, influencing the decision making in the local area, establishing contacts with other organizations, no specific effects, other effects.

## 3f. Do you have any plans to continue working with assessing challenges and chances of climate change in your organization after the end of the BalticClimate project?

The respondents were asked if they have plans to work with climate change challenges and chances after the BalticClimate project. The Russian result showed that the majority, 53%, have plans to continue to work with climate change challenges and chances in their organizations after BalticClimate, Figure 243. 7% of the Russian respondents answered that they will not continue, in addition, 40% answered that they don't know if they will. The overall result also showed that the majority of the respondents have plans to continue the work with climate change challenges and chances in their organizations after BalticClimate, about 9% will not and the rest do not know.







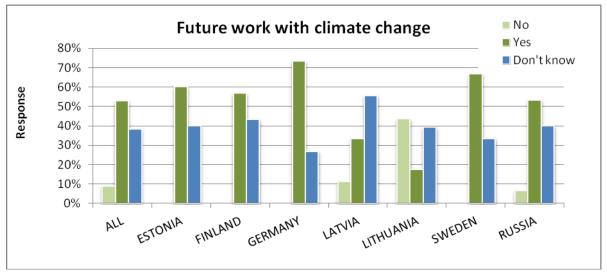


Figure 243: The respondents answer if they have plans to work with climate change challenges and chances after BalticClimate.

## 3g. Please evaluate if you think the following BalticClimate activities have been useful for your work with climate change adaptation and mitigation, for instance in selected implementation cases.

The respondents were asked to evaluate the usefulness of different BalticClimate activities from 1 to 7 with one being not useful at all and 7 being very useful. The results for Russian Target Area are presented in Figure 244. Sustainable development guidelines and the inventory analysis of challenges and chances were the two activates with highest frequency of respondents answering it to be very useful. The inventory stakeholder mapping had the lowest mean value, it should though be stressed that there is a very small difference between the activity with highest mean value and the one with the lowest; ranging from 5,1 to 5,8.

The overall result, Figure 245, also showed that the sustainable development guidelines and the inventory analysis of challenges and chances were the two activates with highest frequency of respondents considering it to be very useful, although, the rate was not as high as for the Russian result. The overall result also showed very small difference between the activity with highest mean value and the one with lowest. Except from "other activity", the urban structure maps had the lowest mean value of usefulness, 4,7, and sustainable development guidelines had the highest mean value of usefulness, 5,5.







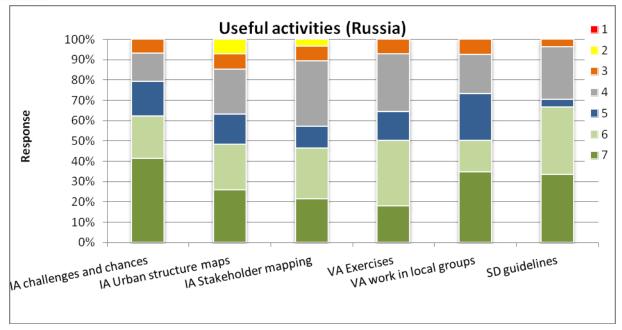


Figure 244: These are the results for Russian target Area. Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question.3-12 % answered "don't know" depending on type of activity.

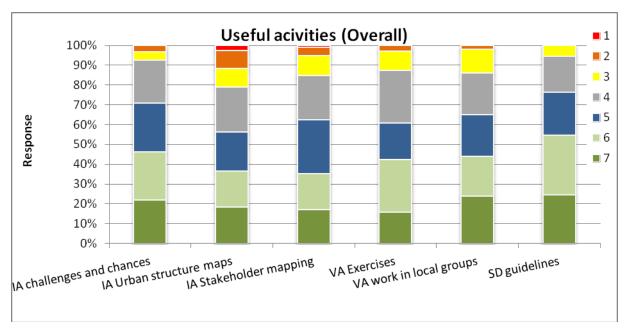


Figure 245: Evaluations of usefulness of BalticClimate activities ranging from 1 to 7, with 1 being not useful at all and 7 being very useful. Activities: Sustainable development guidelines; Vulnerability Analysis: work in the local / regional group; Vulnerability Analysis: Exercises; Inventory Activity: stakeholder mapping; Inventory Activity: urban structure maps; Inventory Activity: challenges and chances of climate change. These are the overall results. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 15-38% answered "don't know" depending on type of activity.







# 3k. How serious are in your opinion the consequences of climate change today, in the coming 20 years and coming 100 years for your local/regional area?

Figure 246 depicts how serious climate change consequences are considered to be. The seriousness is indicated by a scale from 1 to 7, with 1 being the least serious and 7 the most.

The Russian results show quite clear patterns. The seriousness of today's consequences is most frequently considered to be 2 to 4 on the scale to 7. The respondents have answered evenly distributed that the seriousness in 20 years lies between 4 and 7. Russian respondents considered consequences in 100 years to be higher than today and in 20 years -67% have answered 7 on the seriousness scale.

The overall result demonstrates tendency of the Russian result; the seriousness of climate change consequences are considered to increase with time. The median for today's seriousness was 3, in 20 years the median of seriousness was 4 and the median for the seriousness of climate change consequences in 100 years was 6.

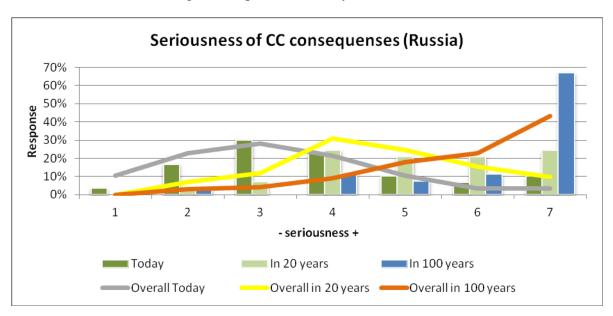


Figure 246: How respondents (Russian and overall) consider the seriousness of climate change today, in 20 years and in 100 years. It was also possible to answer "don't know". This was not included in the result since it was not the focus of the question. 3-4 % answered "don't know" depending on time period.

#### Indicator reflections

Three of the questions in the questionnaire function as BalticClimate indicators to be included throughout the project's evaluations. The indicators are: (1) Percentage of interviewed organisations in BalticClimate Target Areas that actively integrate the issue of climate change into their development activities, Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about: (2)ways to mitigate climate change, and (3) - ways to adapt to climate change. 37 % 50 %







50 % of the Russian respondents answered that their organisation currently work actively with climate change and 37 % that their present work position include issues related to climate change. In autumn 2010, 7 % answered that their organisation integrates the issue of climate change into their development activities. Overall targets for the three indicators were set after the first survey in 2009<sup>5</sup>. The first; 71% of the interviewed organisations in BalticClimate Target Areas should answer that they actively integrate the issue of climate change into their development activities, see Table 27. The percentage of Russian BalticClimate organisations that actively work with climate change is higher for this result than for the last survey. The percentage has increased quite dramatically but the Russian TA did not reach the target anyway. The overall result did not reach the target of 71% either. It is hard to draw any conclusions of the result and comparisons since it in the overall result is such small difference in percentage between the years together with the fact that about two thirds of the overall respondents did not answer the questionnaire in 2009.

**Table 27:** Percentage of interviewed organisations that actively integrate the issue of climate change into their development activities.

| T       | • ,•           | .1        | 7 .     | 1        | • . 7      | 7.      | 1 0     |
|---------|----------------|-----------|---------|----------|------------|---------|---------|
| Is vour | organisation   | currently | working | actively | with       | climate | change  |
| 15 your | or garrisarion | currently | WOINING | ucurciy  | ********** | Cumuc   | change. |

| Respondents | Baseline<br>2010/2009 | 2011 | Target |
|-------------|-----------------------|------|--------|
| Russia      | 7%                    | 7%   | 71%    |
| Overall     | 61%*                  | 65%  | 71%    |

<sup>\*</sup>Russian TA not included

40 % of the Russian respondents answered that they are either fairly well or very well informed about how to mitigate climate change. This is almost twice as much as the rate from the first round survey (24%). The overall result for mitigation has increased with 9 percentage points, including the Russian result for the second round, and the target of 81 % is not met yet. Regarding adaptation to climate change, the result indicates that more respondents, in spring 2011 compared to autumn 2010, feel well informed about how to adapt to climate change. The Russian result is nevertheless not above the target, Table 28.

Even though none of three targets were met for the Russian Target Area, the general result for the Russian target area shows that the integration of climate change in organisations and how informed BalticClimate participants and stakeholders are about mitigation and adaptation have increased and are on the right way. The overall result for how well the respondents consider themselves to be about ways in which they can adapt to climate change has increased considerably as well, from 37% to 58%. The overall result for adaptation is the only indicator that currently has reached the target when including all respondents.

<sup>&</sup>lt;sup>5</sup> The Russian result, 2010, was not included in the overall result that functioned as a base for setting the targets.







**Table 28:** Percentage of interviewed persons in BalticClimate Target Areas that feel at least "fairly well" informed about ways in which they mitigate climate change and ways in which they can adapt to climate change.

#### Do you think you are well informed about...?

| the ways in which you mitigate | the ways in which you can adapt to |
|--------------------------------|------------------------------------|
| climate change                 | climate change                     |

| Respondents | Baseline         |            | Target | Baseline         |                  | Target |
|-------------|------------------|------------|--------|------------------|------------------|--------|
|             | 2010/2009        | 2011       |        | 2010/2009        | 2011             |        |
| Russia      | 24%              | 40%        | 81%    | 20%              | 30%              | 57%    |
| Overall     | 64% <sup>A</sup> | $70\%^{B}$ | 81%    | 37% <sup>A</sup> | 58% <sup>B</sup> | 57%    |

A: Russian TA **not** included

B: Russian TA included







#### 11 Appendix

Table 29 describes responses received from each target area. The table shows that the number of questionnaires sent out varies by country and therefore has affected the number of responses received and respond rate by country. This has to be kept in mind when looking at analysis results. For example, as Sweden contributed 8% of total responses and Finland 26%, the latter has more influence over end-results from a country's perspective. By including the information Table 29 when interpreting the results the weight of individual answers is not diminished.

**Table 29: Response rates** 

| Country   | Distributed | Responses |                        |                       |
|-----------|-------------|-----------|------------------------|-----------------------|
|           | No.         | No.       | % of distributed in TA | % of overall response |
| Estonia   | 120         | 15        | 13%                    | 10%                   |
| Finland   | 136         | 31        | 23%                    | 21%                   |
| Germany   | 122         | 31        | 25%                    | 21%                   |
| Latvia    |             | 9         |                        | 6%                    |
| Lithuania | 41          | 25        | 61%                    | 17%                   |
| Sweden    | 40          | 9         | 23%                    | 6%                    |
| Russia    |             | 30        |                        | 20%                   |
| Total     | ≥498        | 150       |                        | 100%                  |

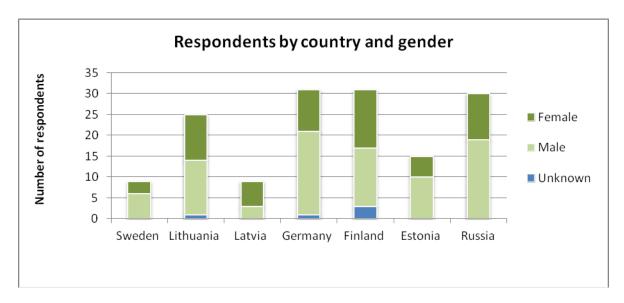


Figure 247: Total respondents by country and gender







Figure 247 describes gender division differences in the participating Target areas. In general there was a higher male response, however for Latvia there was slightly more females responding and in Finland equally many males and females responded.

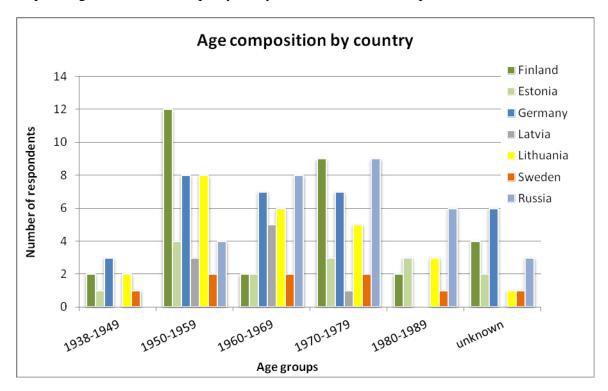


Figure 248: Age division of respondents by country

The age division of respondents by country in Figure 248 is in absolute terms and reflects the varying number of respondents in different age groups. The countries have, more or less, a normal distribution of respondents over the age groups. The age group being most numerous was 1950-1959, with about 30% of the respondents.



Figure 249: Overall roles by gender







About 60% of the respondents were males and about 40% females; some of the respondents did not fill in their gender. Figure 249 show the gender distribution for different roles. There is quite equal distribution of gender except for the target area group. Three of four groups (excluding other role) have a higher number of males than females, but again, the males were over represented.