



Funded by
the European Union

282746
IMPACT2C
Quantifying projected impacts under 2°C warming

Instrument Large-scale Integrating Project
Thematic Priority FP7-ENV.2011.1.1.6-1

D15.3 Workshops or conferences for different stakeholder groups

Due date of deliverable **M48**
Actual submission date **September 2015**

Start date of the project 01.10.2011
Duration 48 months

Organisation name of lead contractor for this deliverable **HZG**

REVISION: **FINAL**

| Project co-funded by the European Commission within the Seventh Framework Programme | | |
|---|---|---|
| Dissemination Level | | |
| PU | Public | X |
| PP | Restricted to other programme participants (including the Commission Services) | |
| RE | Restricted to a group specified by the consortium (including the Commission Services) | |
| CO | Confidential, only for members of the consortium (including the Commission Services) | |

Table of Content

| | |
|---|----|
| Overview..... | 3 |
| Workshops organized for stakeholders in Europe | 6 |
| 1 st Stakeholder’s Workshop at IIASA, November 13, 2012..... | 6 |
| Meeting with scientific journalists, organized by ENEA press office | 7 |
| 2 nd Stakeholder’s Workshop at DMI, October 29, 2014 | 8 |
| Stakeholder’s dialog in Africa..... | 9 |
| Workshops organized for stakeholders in Bangladesh | 9 |
| Consultation workshop on “Identification of main climate related pressures in Bangladesh” | 9 |
| Stakeholder’s workshop, August 19, 2015..... | 10 |
| Dissemination activity in the Maldives | 12 |
| Meetings at: | |
| Hulhumale Development Cooperation..... | 12 |
| Maldives National University..... | 12 |
| Ministry of Fisheries and Agriculture, Marine Resource Centre..... | 12 |
| Ministry of Environment and Energy Ministry of Tourism | 12 |
| Water Solutions, La Mer, MEECO | 12 |
| Annex..... | 14 |

Overview

This report summarizes the activities carried out within the IMPACT2C project to enhance the dialog between IMPACT2C and different stakeholder's groups. It consists of 4 chapters and provides the overview of the workshops organized in Europe, Bangladesh and the Maldives. The members of the IMPACT2C stakeholder's panel are listed in the Annex.

One of the major aims of the IMPACT2C project is to enhance the awareness of society and policy makers towards impacts of a global warming of + 2°C. The audience which was in focus is politicians, stakeholders, and scientists who are interested in or directly connected to the field of the impacts of global warming. The outreach strategy was developed at the beginning of the project. The major steps are summarized in D15.1 (Final outreach strategy) and includes:

- the IMPACT2C website;
- a summer school for young scientists;
- face-to-face events addressing different types and levels of stakeholders including training and sensitization of journalists;
- various publications, including one common project publication in the form of an atlas.

The dialog with different stakeholder's groups makes an important contribution to the dissemination of project results and to link scientific ideas of IMPACT2C and the stakeholder's needs. At the beginning of the project, the IMPACT2C stakeholder's panel has been established. Here the experts from different sectors from all Europe and the world's vulnerable regions have been invited (see annex 1). In addition, direct dialog with stakeholders in Africa, Bangladesh & Maldives has been established to disseminate the project results as well as to contribute to the development of policy recommendations for specific regions.

Within the project a series of Policy Briefing Notes has been initiated to summarize the key project findings. The first Policy Briefing Note reported key lessons learned from the climate modelling and provided a discussion on five major items about +2°C global warming. The next issues are framed around the questions on "what does 2°C of global warming mean for different sectors and regions?" The policy briefing note has been reviewed by the project's stakeholders and is widely distributed to the different user groups at the major scientific conferences (COP19, Our common future under Climate Change, ECCA2015) and the European Commission.

Furthermore, the project newsletters have been designed after consultations with the stakeholders on the content and layout. Two issues have been published within the project duration and are widely distributed via the project homepage.

Close cooperation was established among the European Environmental Agency (EEA) and the IMPACT2C project. The findings from WP5 (tasks 5.5 & 5.6) were included in the review of EEA:

Adaptation in Europe - Addressing risks and opportunities from climate change in the context of socio-economic developments. EEA Report No 3/201. May 02, 2013. ISBN 978-92-9213-385-6. ISSN 1725-9177.

The representatives from EEA have been actively participated in the workshop on the “IMPACT2C atlas”.

One major science-related conference back to back with a large science/policy conference has been originally planned to discuss the outcome of the project. However, it has been reconsidered after the experiences with different stakeholder events outside of IMPACT2C. Although those meetings had an excellent agenda and very important topics, not so many stakeholders accepted the invitations. One possible explanation is that there are currently too many meetings of interest, and people are too busy.

Consequently this event was cancelled and the dissemination activities via electronic and printed media have been strengthened. As an example, the first draft of the Fact-Sheet for energy sectors, in which the IMPACT2C results for the individual member states are summarized in an easy understandable way, has been prepared. We aim at working on this draft beyond the IMPACT2C project and we would ideally translate it into the EU national languages. As mentioned before, the series of policy briefs notes has been extended to summarize the IMPACT2C key findings for all IMPACT2C sectors and case study regions.

Furthermore, freely available online IMPACT2C Web-Atlas has been developed to present climate and environmental change under a 2°C mean global temperature rise. It serves two main purposes. The users receive a user-friendly tool for understanding impacts, risk and adaptation under a 2°C warmer climate; and it provides a tool for accumulation, linkage, visualization and review of the scientific content. The IMPACT2C atlas summarizes the project’s results and includes climate change impacts and vulnerability maps not only on a pan-European level, but also for the hot spot regions in Africa, Bangladesh and the Maldives.

Additionally to enhance the awareness of society and policy makers towards impacts of a global warming of 2°C, the scientific findings of the IMPACT2C project have been widely presented at the major international scientific conferences:

- special session on the “Climate vulnerability assessment – regional climate change – impacts and vulnerabilities under 20C warming” was organized within the European Climate Change Adaptation (**ECCA**) in Hamburg, March 2013;
- **COP19** Side Event in Warsaw, November 2013 “Durban Action Global Scenarios for 2oC:feasibility,implication and impacts”;
- **COP20** Side event in Lima, December 2014 “Knowledge gaps in the 5th IPCC Assessment Report: an EU-Japan scientific cooperation event”;
- Scientific session “Dealing with Risks Quantifying impacts of +2°C global warming for Europe” at **ECCA2015** in Copenhagen, May 2015;
- Scientific Session “Multi-sectoral analysis of risks to climate change (hot spots) at 2 °C warming” at the “**Our Common Future under Climate Change**” in Paris, July 2015. This conference represented an historic opportunity to deliver a clear message to the Paris COP21.



Funded by
the European Union

The application form has been sent to the European Commission to participate in the EU side event at the European Union Pavilion during COP21 in Paris in December 2015.

Workshops organized for stakeholders in Europe

An information exchange between the members of the stakeholder's panel and IMPACT2C scientists has been arranged during two workshops. The briefing with journalists has been organized during the 3rd IMPACT2C general assembly at ENEA. The minutes of these events are documented and available for partners at the project internal website.

1st Stakeholder's Workshop at IIASA, November 13, 2012

The first Stakeholder Workshop was organized back to back with the 2nd General Assembly of IMPACT2C. All members of the stakeholder panel have been invited.

The main topic of the first meeting was to identify hot spots which may affect the stakeholders' business. The discussion was focused on possible strategies for bilateral information exchange. Both sides agreed on the necessity for establishing a research network to exchange information and stimulate the research community. However, the complexity of establishing such a network became clear. Specifications of single topics have different demands on climate change information e.g. flood risk assessment versus policies for agriculture. Furthermore, the relevance of uncertainties is of high interest for all different purposes, as well as the role of cross sectoral influences, which confirms the relevance of IMPACT2C goals.

The projects' dissemination strategy was discussed, and major outcomes were the involvement of communication-experts and the development of aggregated indicators as a useful way of communicating project results.



Participants of the 1st Stakeholder Workshop at IIASA

Meeting with scientific journalists, organized by the press office of ENEA

Here are the links to this meeting, published online at YouTube and in the Italian media:

<http://www.ilsole24ore.com/art/notizie/2013-11-21/europa-capofila-e-prima-vittima-riscaldamento-globale-120945.shtml?uuid=ABJcHge>

http://www.enea.it/it/enea_informa/news/progetto-europeo-su-impatto-del-riscaldamento-globale-impact2c

http://www.enea.it/it/enea_informa/news/progetto-europeo-impact2C

List of participants:

| | |
|------------------|---------------------------------|
| Laura Giannoni | agenzia ANSA |
| Angela Zurzolo | agenzia 9 Colonne |
| Teresa Ciliberto | Meridiana Notizie |
| Elena Roda | stampa.it; Urbano Creativo News |

Paolo Ruti (ENEA) presented the latest research of the IMPACT2C. Daniela Jacob, Paolo Ruti, Robert Vautard, Paul Watkiss, Aisf Zaman and Andre Kamgaf answered the questions from the journalists:

1. Is Typhoon Haiyan a direct result of climate change, can we predict such events ?

It is very complex question. There are many related factors. Regarding climate models, it is difficult to predict such events. Results of the global models are too coarse. However, the latest results show the increasing in number of extreme events. That's why we need to be prepared for the future to reduce the number of mortalities. We need to invest more in the disaster management.

2. What are the impacts of climate changes on developing countries in Africa, in Bangladesh?

This is a very important question. The messages have to be clear. The better dissemination of knowledge is needed to be applied.

Andre Kamgaf showed the results on the latest flood in 2012 in Niger basin and in 2013 in Mali. It is very important to coordinate different activities. During the last floods, most territories were flooded not only because of heavy rain, but also because of opening the dumb.

Bangladesh is already experiencing some of the potential impacts of climate change. Rainfall has become erratic, salt intrusion has been increasing and more extreme temperatures have been experienced. It is still too early to definitively state that these have been caused by climate change. Despite this, the country has taken the initiative and developed adaptation strategies and plans. Now the focus is to try and mainstream adaptation measures into the overall development process so that infrastructure investments are climate proofed and no-regrets measures are properly identified and effectively implemented. Through the EC's support, research projects like Impact2C help to not only develop capacity amongst researchers in Bangladesh, but also to enhance understanding about the impact-adaptation relationship in our local context.

3. What are the adaptation strategy for Europe ?

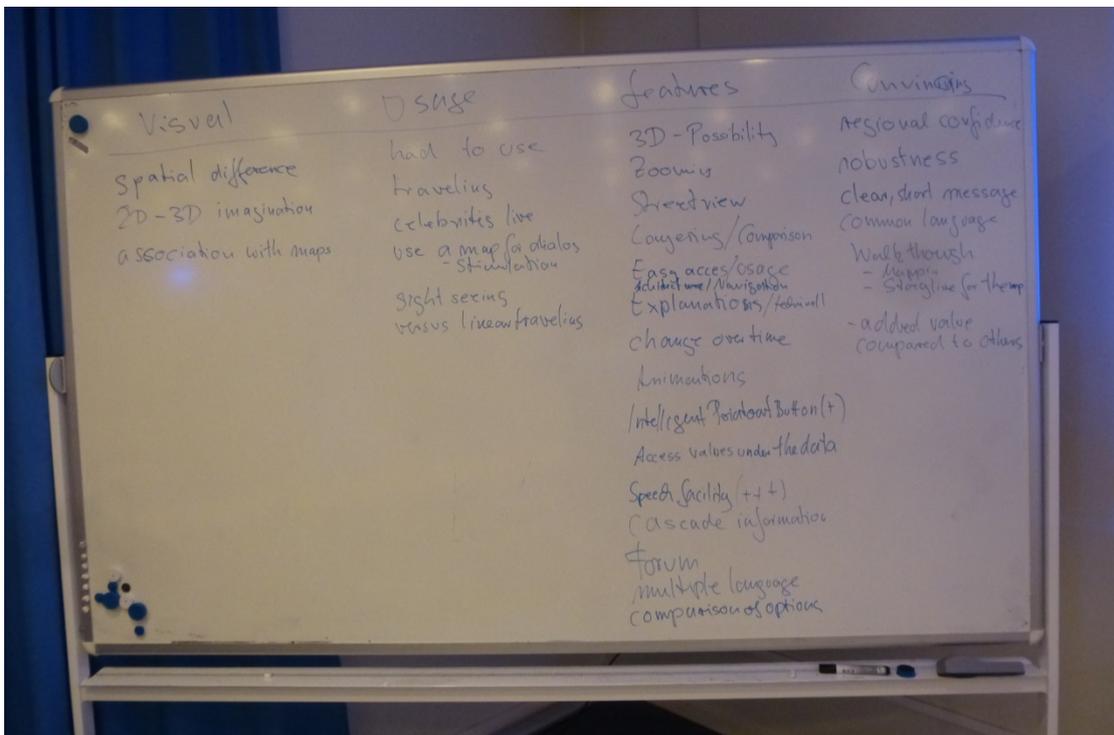
We need to find a strategy how to implement our results into the infrastructure and adaptation. Paul Watkiss showed the example of the adaptation strategy developed for London to protect the metropolitan area against sea level rise. There is a good combination between top-down and bottom-up approaches. IMPACT2C will identify the most vulnerable regions in Europe. Cross-cutting issue is also very important, e.g. rational use of water resources for different sectors. If there is enough water for biofuel production, would be enough water for irrigation? However, the uncertainties need always to be taken into account. This is a big issue of IMPACT2C.

4. What is the climate change impact on agriculture in Europe ?

It strongly depends on the region. The changes in temperature of 2 to 3 degree are positive for the Northern Europe. They are also positive for growing winter wheat in the Mediterranean. At the same time there are negative for the summer wheat. Wine is another example. It is very difficult to find an optimal condition for growing good wine. It needs very sunny and dry weather.

2nd Stakeholder's Workshop at DMI, October 29, 2014

The second Stakeholder Workshop was organized back-to-back with the 4th General Assembly of IMPACT2C at DMI. All members of the stakeholder panel have been invited. The main topic of this meeting was to identify the major storylines of the IMPACT2C atlas. The photo shows the ideas of the IMPACT2C atlas, which has been discussed with the stakeholders.



Main modules of the IMPACT2C atlas and the feedback from stakeholders

Furthermore the projects' outcomes were actively discussed. Marinos Kritsotakis presented the key issues of the water policy at Crete and made suggestions on how the results of the IMPACT2C can be implemented in the framework for multiple impact analysis for small islands and coastal regions in Mediterranean. Dan Balteanu showed the initial results of the study on "Landslide Hazard in Buzău and Vrancea counties in Romania". Here the results of the IMPACT2C can be used to develop general recommendations on the estimation of land hazards using climate change information.

"Challenge for Adaptation – A quantitative shoreline change analysis, Maldives" was presented by Mohamed Aslam. Here the main focus was placed on the sea level rise. "Which islands exhibit the highest resilience to SLR?", "What makes the islands more resilient?", "How the results of IMPACT2C can help to develop an adaptation strategy" were the main issues for discussions.

Stakeholder's dialog in Africa

The project partners African Centre for Meteorological Applications for Development (ACMAD) and the Wetlands International (WI) are actively involved into the stakeholder's dialog in the African case studies regions. ACMAD is the main coordinating institution of the PRESAO, Regional Climate Outlook Forums (RCOFs) for the West African region organized as a major instrument generating climate information for adaptation to climate variability and change.

The special issue of the Policy Briefing Note (will be finalized by the end of September 2015) summarizes the main findings of IMPACT2C for the Niger basin and for the Blue Nile Basin. It connects the IMPACT2C outcomes with the river-basin policy-makers' information needs.

Wetlands International has been invited to participate in the Extraordinary Council of Ministers of the Niger Basin Authority in Bamako Mali, 27-29 September 2015. Furthermore, WI will attend the Annual Meetings of the World Bank Group (WBG) and International Monetary Fund (IMF), October 9 – 11, 2015 in Lima, Peru. The Civil Society Policy Forum, a program of events including policy sessions for civil society organizations (CSOs), will be held from October 6 – 9, 2015. Here Wetlands International is invited by Oxfam to participate in the session on communities impacted by the World Bank projects. At this meeting, the Investment Plan Development for Enhancing Resilience to Climate Change in Niger Basin will be presented. Wetlands International will share the outcomes of the IMPACT2C project.

Workshops organized for stakeholders in Bangladesh

Consultation workshop on "Identification of main climate related pressures in Bangladesh"

The workshop was held on November, 21 2012 at Spectra Convention Centre, Dhaka and was organized by Bangladesh Centre for Advanced Studies (BCAS) and Institute of Water Modelling (IWM), Dhaka Bangladesh.

The workshop was convened to evaluate the targeted climate pressure information needed for impact modeling. It aimed at bringing together the representatives and experts from different priority sectors in Bangladesh.

The specific objectives of the workshop were:

- Selection of the most important impact sectors;
- Identification of main climate pressures for each sector;
- Identification of impact relationships (thresholds, positive or negative impact, etc.)
- Communication with local experts about the focus of the impact assessment

This event was organized around the working group; based on the outcome of these working groups following sectors have been selected to identify the main climate related pressures in Bangladesh:

- ❖ Agriculture and Forestry
- ❖ Fisheries
- ❖ Water Resources
- ❖ Energy



Md. Shahid Ullah, Assistant Director, Department of Agriculture Extension leading the agriculture group discussion

The detailed report of this workshop is available for the project partners on the internal wiki-page.

[Stakeholder's workshop, August 19, 2015](#)

Following the recommendations of the workshop mentioned above, the second workshop was held on November 19, 2015 at Spectra Convention Centre, Dhaka, Bangladesh.

The primary objectives of this workshop were:

- to discuss different adaptation options with national level stakeholders and experts;
- to prioritize the main adaptation options in Agriculture, Fisheries and Water resources sectors of Bangladesh.

The representatives from Dept. of Agriculture Extension (DAE), Bangladesh Agriculture Research Institute (BARI), Bangladesh Water Development Board (BWDB), World Fish, Institute of Water Modeling (IWM), Bangladesh Agricultural Research Council (BARC), Bangladesh Meteorological Dept. (BMD), Dept. of Environment (DoE), Dept. of Forestry (DoF), Institute of Water and Flood Management (IWFM), and expert from relevant Social organizations, NGOs, INGOs and universities ranked the adaptation options based on their work experience and field knowledge.

The workshop was organized around the working groups. For prioritizing adaptation options, participants followed the special developed rules for scoring different adaptation options. It was ensured that, each group consists of the experts from Agriculture, Fisheries and Water resources. After scoring different adaptation options the outcomes of each group have been presented at the plenary session. Finally the suggestions have been made on further improvement of these adaptation options.



Group works about prioritization of adaptation options

The main outcome of the workshop was the inventory of the adaptation options to minimize the climate stress and economic loss in selected impact sectors in Bangladesh. The suggested adaptation options were also prioritized and ranked based on some specific criteria such as effectiveness, external effects, availability, accessibility, affordability, and profitability.

The detailed report of this workshop is available for the project partners on the internal wiki-page.

Dissemination activity in the Maldives

The IMPACT2C project partners from SOTON, GCF and MHE disseminated IMPACT2C findings at the following meetings:

Hulhumale Development Cooperation

The IMPACT2C results, particularly the implications with respect to the on-going land reclaim project, have been discussed with the developers and planners of the Hulhumale island.

Maldives National University

The major findings of IMPACT2C have been presented at the Maldives National University to staff and students. The results have been discussed with the Vice Chancellor and other senior academics to understand how we could make better links in the future, both in terms of research and student exchanges.

Ministry of Fisheries and Agriculture, Marine Resource Centre

The meeting with the Minister has been organized regarding needs to agriculture research in the Maldives.

Ministry of Environment and Energy Ministry of Tourism

The interesting discussion was with the Minister regarding how the Maldives islands are designed and copes with extreme events.

Water Solutions, La Mer, MEECO

Consultancies play an important role in gathering scientific data in the Maldives. The company employs a number of former government employees. The meeting was organized to discuss the IMPACT2C findings, and to explore future cooperation.



Meeting at La Mer, MEECO

The detailed report is available for the project partners on the internal wiki-page.

Annex

Members of the stakeholder's panel of the IMPACT2C project:

| NN | Name | Country | Affiliation | |
|-----------|--------------------------|-----------------|--|---|
| 1. | Dan Balteanu | Romania | Institute of Geography | Director |
| 2. | Astrid Björnsen Gurung | Switzerland | Mountain Research Initiative (MRI) Europe | Programme Manager |
| 3. | Marinos Kritsotakis | Greece | Decentralized Administration of Crete | Director |
| 4. | Plamen Mishev | Bulgaria | University of National and World Economy | Head of Department "Natural Resource Economics" |
| 5. | Mohammed Sadeck Boulahya | France | MedACC2020/ Plan Bleu | Regional Adviser Climate for Development Consultant |
| 6. | Sylvain Mondon | France | National observatory on the effects of global change (ONERC) /General directorate for energy and climate change of Ministry of ecology, sustainable development and energy | Program Officer |
| 7. | Dr. Nicolas Beriot | France | DGEC, Ministry of environment | |
| 8. | Hans-Martin Füssel | Denmark | European Environmental Agency | |
| 9. | Dr. Andre Jol | Denmark | European Environment Agency | Head of group vulnerability and adaptation |
| 10. | Jelle G. van Minnen | The Netherlands | Department of Climate, Air and Energy PBL Netherlands Environmental Assessment Agency | Senior Climate Change Policy Researcher |
| 11. | Dr. Juan Carlos Ciscar | | EC JRC Economics of Climate Change, Energy and Transport Unit | |
| 12. | Dr. Fritz Holwarth | Germany | Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit | Deputy Director General |
| 13. | Joan Canton | | European Commission Directorate-General for | Policy officer |



Funded by
the European Union

Climate action
Adaptation Unit

14. Mohamed Aslam

The Maldives Small Island Research Centre,
Mathoda