



Meeting report of the ad-hoc
group for the modelling and
assessment of contributions
to climate change (MATCH)

24 to 25 September 2007,
Cologne, Germany

04 October 2007

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1 INTRODUCTION

As part of the negotiations on the Kyoto Protocol, the delegation of Brazil made a proposal, in May 1997, to set differentiated emissions reduction targets for Annex I Parties of the UNFCCC according to the impact of their historic emissions on temperature rise (UNFCCC document FCCC/AGBM/1997/MISC.1/Add.3).

After two expert meetings held under the auspices of the SBSTA (28 – 30 May 2001 in Bonn, Germany; 25 - 27 September 2002 in Bracknell, UK), the SBSTA agreed that the work should be continued by the scientific community. Subsequently, further expert meetings were held on the initiative of the governments of UK, Brazil and Germany.

In August 2003, the UK Department for the Environment (DEFRA) commissioned Ecofys to provide administrative, secretarial and scientific assistance as 'support unit' for the process until the end of 2005.

During the expert meeting held in Berlin on 8/9 September 2003, draft terms of reference and a draft work plan for a process until 2005 were discussed for the now called "Ad-hoc group for the modelling and assessment of contributions to climate change (MATCH)". Participants for a scientific coordination committee were selected, which guides and coordinates the process.

This document is the report of the meeting of MATCH held from 24 to 25 September 2007 in Cologne, Germany. It was drafted by Niklas Höhne and Christian Ellermann, Ecofys, Germany [and reviewed by the participants of the meeting].

The agenda of the meeting (*Annex A*) consisted of two major parts: Presentation of the status quo of the work on paper #2, #3 and #4 and working sessions on paper #3 and paper #4. All presentations held during the meeting are available on file exchange of the web site www.match-info.net. 17 participants attended the meeting (*Annex B*).

2 ISSUES DISCUSSED BY THE SCIENTIFIC COORDINATION COMMITTEE

The members of the scientific coordination committee (SCC) Jan Fuglestvedt, Joyce Penner, Jason Lowe, Michael Prather, Guoquan Hu and Niklas Höhne met on 23 and 25 September to discuss the agenda of the meeting, funding for developing country experts and the summary report of MATCH. The SCC is drafting the summary report and will send it to match participants for review before it is submitted to the UNFCCC on 31 October.

3 PAPER PRESENTATIONS AND WORKING SESSIONS

Joyce Penner opened the meeting as Co-Chair of the scientific coordination committee of the MATCH group. The attendance of David Warrilow of DEFRA, UK was noted thankfully.

Niklas Höhne welcomed the participants on behalf of Ecofys and introduced all participants to the history of MATCH. He presented the results obtained by MATCH so far, reviewed the work plan and timeline to finish the current work under the MATCH process. Niklas Höhne presented reported from the MATCH side event at UNFCCC meetings in Vienna, 27-31 August 2007 (*PPT available*)

The future process is as follows:

- This is the last MATCH meeting to finalize work and to prepare report for UNFCCC. As much work as possible is undertaken at the meeting and the time thereafter is used for the review process.
- 31 October 2007: Submission of the final report to SBSTA
- December 2007: "In-session special side event" at SBSTA 27 to present the work to UNFCCC delegations.
- 7 March 2008: Countries submit their views on the matter
- June 2008: Official consideration by SBSTA 28.

Niklas Höhne also mentioned that in 22 occasions, experts from developing countries were supported with travel and subsistence costs. There is an additional 1000 EUR for developing country expert trips available in the fund provided through the UK, German and Norwegian governments. This can be used to support travel to the UNFCCC meeting in December.

3.1 STATUS AND DISCUSSION OF PAPER #3

Niklas Höhne presented the current status of modelling in paper #3 "Contributions to climate change by country with uncertainty" (*PPT available*). Several aspects of greenhouse gas accounting were discussed to ascertain that emissions are attributed correctly and data constraints are mentioned if necessary.

Helcio Blum continued by presenting the modelling results to be used in paper #3 (*PPT available*). Several points concerning the uncertainty range calculations and sectoral definitions were clarified.

Niklas Höhne and Helcio Blum described the tasks for paper #3 to be finished at this meeting (*Annex C*).

3.2 STATUS AND DISCUSSION OF PAPER #4

Akinori Ito presented the progress of paper #4 "Land use change and forestry". (*PPT available*). Several points were discussed, including the possible differences of UNFCCC inventory LUCF data and LUCF modeling data used in the paper and distinguishing LUCF from total terrestrial CO₂ uptake. It was pointed out that it is important to emphasize in the paper that much more research is needed in this area.

The outstanding tasks for paper #4 were described and it the need to find a clear message for the whole paper was noted (*Annex D*).

3.3 DISCUSSION OF THE SUMMARY REPORT

The draft summary report was discussed by the participants of the meeting. It was pointed out that the main outcomes of the process should be framed in a way that can be easily understood and catches the attention of policy makers. The focus should be on the newly available tools and knowledge for input into the UNFCCC process.

3.4 WORKING SESSIONS

The authors of paper #3 and paper #4 split up into separate working sessions to prepare the papers for publication.

3.5 STATUS OF PAPER #2

Michael Prather presented the current status of paper #2 and the timeline to publication (*Annex C*).

3.6 STOCKTAKING AND WRAP-UP

In the closing session Joyce Penner thanked the participants for their contributions and expressed her satisfaction with the great progress made on the outstanding tasks during the working sessions.

The timelines for the review process prior to the publication of the papers can be found in Annexes C-E.

It was agreed that several key participants should take part in the presentation at the side event at the UNFCCC meeting in Bali in December 2007. Niklas Höhne will certainly be there to represent the work of MATCH, most likely accompanied by Michael Prather and/or Joyce Penner. The participants hope that a representative from Brazil (e.g. Luiz Pinguelli) will be able to be present in Bali.

The discussion on participation and representation of the MATCH work at the SBSTA meeting in Bonn in June 2008 was postponed to a later date.

Finally Joyce Penner thanked the participants for the successful meeting and participants thanked Ecofys for hosting and arranging this meeting.

ANNEX A: AGENDA**Sunday, 23 September 2007 For scientific coordination committee only**

| | | | |
|------------------|--|--|----|
| 13.00 – 17.00 | Chair: Joyce Penner / Jan Fuglestvedt | Preparation of the meeting Writing of the summary report of MATCH | 4h |
|------------------|--|--|----|

Sunday, 23 September 2007 For all experts

| | | | |
|-------|----------------|--|--|
| 19.30 | Welcome dinner | | |
|-------|----------------|--|--|

Monday, 24 September 2007 For all experts

| | | | |
|------------------|---|---|------|
| 9.00 – 9.30 | Chair: Joyce Penner | - Welcome - Review of timelines (SBSTA), tasks, goals of MATCH, review of long-term work plan, update on UNFCCC meetings (Niklas Höhne) | 30' |
| 9.30- 11.00 | Chair: Joyce Penner | - Presentation of the modelling of paper #3: "Contributions to climate change by country with uncertainty" (Niklas Höhne and Helcio Blum) - Discussion | 1.5h |
| 11:00 | Coffee Break | | 30' |
| 11.30- 13.00 | Chair: Jan Fuglestvedt | - Presentation of the status of paper #4: "Land use change and forestry" (Akinori Ito) - Discussion | 1.5h |
| 13.00 | Lunch | | 1h |
| 14.00 - 15.30 | Drafting paper #3 "Contributions to climate change by country with uncertainty" | Drafting paper #4: "Land use change and forestry" | 1.5h |
| 15:30 | Coffee Break | | 30' |
| | (Continued) | (Continued) | 1.5h |
| 17:30 | End | | |

| | | | |
|-------|--------|--|--|
| 19:30 | Dinner | | |
|-------|--------|--|--|

Tuesday, 25 September 2007 For all experts

| | | | |
|------------------|------------------------|---|------|
| 9.00 - 11.00 | (Continued) | (Continued) | 1.5h |
| 11:00 | Coffee Break | | 30' |
| 11:30 - 13:00 | (Continued) | (Continued) | 1.5h |
| 13:00 | Lunch | | 1h |
| 14.00- 15.30 | (Continued) | (Continued) | 1.5h |
| 15:30 | Coffee Break | | 30' |
| 16:00 – 17.30 | Chair: Joyce Penner | - Stocktaking - Work plan - Decision on next meeting - Distribution of tasks | 1.5h |
| 17:30 | End | | |

ANNEX B: PARTICIPANTS OF THE MEETING

| | |
|--|---|
| Akinori Ito | Frontier Research Center for Global Change, Japan |
| Ana Claudia Nioac de Salles | Federal University of Rio de Janeiro, COPPE/UFRJ, Brazil |
| Atsushi Kurosawa | The Institute of Applied Energy, Tokyo, Japan |
| Ben Matthews | Université catholique de Louvain, Louvain la Neuve, Belgium |
| Christian Ellermann | Ecofys, Germany |
| David Warrilow | DEFRA, UK |
| Helcio Blum | Federal University of Rio de Janeiro, COPPE/UFRJ, Brazil |
| Laila Gohar | Met Office Hadley Centre for Climate Prediction and Research, UK |
| Malte Meinshausen | Potsdam Institut für Klimaforschung, Germany |
| Masachika Suzuki | International University of Japan, Japan |
| Ragnhild Bieltvedt Skeie | CICERO, Centre for Climate Research, Norway |
| Scientific coordination committee | |
| Michael Prather | University of California at Irvine, USA |
| Jan Fuglestedt | CICERO Centre for Climate Research, Norway |
| Jason Lowe | Met Office Hadley Centre for Climate Prediction and Research, UK |
| Joyce Penner | University of Michigan, USA |
| Guoquan Hu | National Climate Center, China Meteorological Administration, China |
| Niklas Höhne | Ecofys Germany |

ANNEX C: PAPER #2

Responsibilities and timeline

| Task | Responsible | Deadline | Action taken |
|---|--------------------|-----------------|---------------------|
| First draft out to co-authors | Michael Prather | 8 October 2007 | Open |
| Replies to first draft (will only be taken into account if received by the deadline) | Co-authors | 15 October 2007 | Open |
| Paper sent out to active MATCH participants | Michael Prather | 20 October 2007 | Open |
| Paper sent to Scientific Steering Committee | Michael Prather | 20 October 2007 | Open |
| Submission of paper | Michael Prather | 31 October 2007 | Open |

ANNEX D: PAPER #3**Responsibilities and timeline**

Revised version exists.

| Task | Responsible | Deadline | Action taken |
|--|--|-----------------|---------------------|
| Submission of datasets | Modellers (Hu Guoquan, Ben Mathews, Jaso Lowe) | 8 October 2007 | Open |
| Completion of the paper / paper sent out to co-authors and active participants | Niklas Höhne | 15 October 2007 | Open |
| Replies to the draft | Co-authors | 20 October 2007 | Open |
| Paper sent to Scientific Steering Committee | Niklas Höhne | 25 October 2007 | Open |
| Submission of paper | Niklas Höhne | 31 October 2007 | Open |

ANNEX E: PAPER #4

Responsibilities and timeline

| Task | Responsible | Deadline | Action taken |
|--|--|-----------------|---------------------|
| Submission of paper to Joyce and Michael | Akinori Ito | 2 October 2007 | Open |
| Comments | Joyce Penner, Michael Prather | 12 October 2007 | Open |
| Submission of paper to co-authors | Akinori Ito | 18 October 2007 | Open |
| Comments | Co-authors | 25 October 2007 | Open |
| Review by Scientific Steering Committee | Joyce Penner, Michael Prather, Akinori Ito | | |
| Submission of paper | Akinori Ito | 31 October 2007 | Open |