

REPORT OF THE 41ST SESSION OF THE IPCC BUREAU
Geneva, 19-20 May 2010

1. OPENING OF THE SESSION

The Chairman of the IPCC, Mr Rajendra K. Pachauri, opened the Session on 19 May 2010 at 10 a.m. He introduced Mr Michel Jarraud, the Secretary-General of the World Meteorological Organization and Mr Peter Gilruth, Director of the Division of Early Warning and Assessment (DEWA) of UNEP, Nairobi, and invited them to say a few words.

The agenda, approved without change, is attached as **Annex 1**. The list of participants is attached as **Annex 2**.

2. APPROVAL OF THE DRAFT REPORT OF THE 40TH BUREAU SESSION

The draft report of the 40th Bureau Session was approved without change.

3. SELECTION OF LEAD AUTHORS (CLA AND LA) AND REVIEW EDITORS (RE) FOR THE IPCC 5TH ASSESSMENT REPORT (AR5)

After having reviewed the documents prepared by the Working Groups and after having heard oral presentations by the Working Group Co-Chairs, the Bureau discussed the author selection list and the appropriate timing for the release of the list. Beyond expertise, the Working Groups explained that they tried to involve more experts from developing countries, more female experts, with an eye to refresh author teams with new and younger authors, and respect the need for a range of views. Some of them discussed the need to involve more Review Editors with a high level of expertise in the process. In particular the Co-Chair of Working Group I, Mr Thomas Stocker, emphasized the important role of the Review Editors and explained that this is why they increased the number of Review Editors and chose extremely senior people with high international regard for these positions in each chapter. As for Working Group III, it was suggested that the engagement of the industry community is critically important. They have a lot of up-to-date knowledge, but do not always produce many scientific papers.

Overall, the Bureau expressed concern that in some categories the percentages (the balance) should be increased further, for example for developing country experts and female scientists. The Bureau was also concerned that there was a lack of regional balance among Coordinating Lead Authors and Review Editors. It was suggested that the IPCC should improve methods to invite experts from developing countries.

It was furthermore suggested that the Working Group Bureaux meet again to consider thoughts on how to increase the percentages in these categories, and it was also suggested that the Co-Chairs sit together to develop a uniform list of statistics. It was suggested that statistics be available on the total participation of experts from developing countries/EIT, rather than providing the individual Working Group statistics. Also, the Bureau considered the need to specify the nationality of the expert as well as the country where the expert is working.

After convening small meetings among the Working Groups to consider the comments received so far by the Bureau meeting on 19 May, the Bureau was presented with a revised list of authors and Review Editors in the afternoon of 20 May. They were appreciated by the Bureau members and found to be much more balanced. The Chairman thanked the Working Group Co-Chairs and Bureaux for their lists and expressed the hope that all nominees will accept the invitation to participate in the AR5.

In response to a suggestion by the Government representative of Mali to add lists of Authors for the AR5 and statistics, the Secretary, Ms Renate Christ, noted that the file with all the AR5 Authors were finalized after the Session, but agreed to find an appropriate way of annexing the lists to the Bureau Session report. The list of authors for Working Group I, II and III (as approved by the Bureau in 2010) is attached as **Annex 3**. The AR5 author statistics based on the most recent changes in these lists (as of April 15, 2011) are attached in **Annex 4**.

4. PLANNING OF THE AR5 SYNTHESIS SCOPING MEETING

The Secretary of the IPCC, Ms Renate Christ, presented BUR-XLI/Doc. 9 to the Bureau for consideration. She explained the logistical planning as well as the proposed agenda for this meeting. The Secretariat proposed that it could be organized around the four broad headings that were identified by the small group on the Synthesis Report that met in Venice in July 2009 during the AR5 Scoping Meeting which was requested by the Panel at its 30th Session in Antalya to prepare a broad outline for the SYR. This group based its work on the submissions by governments compiled in AR5-SCOP/INF. 1 (26 June 2009) by the Secretariat.

The Chair explained that on 31 August 2010 the InterAcademy Council (IAC) will release its evaluation of the IPCC procedures and processes. He explained this would occur in the middle of the planned AR5 Synthesis Report Scoping Meeting (30 August – 1 September 2010). He asked the Bureau to consider whether the dates of the Synthesis Report meeting could be changed either before or after the release of the IAC report. A number of comments were made about the advantages of either delaying the meeting or holding it in advance, in particular the essential requirement that the outcomes of the SYR meeting will be discussed at the 32nd Session of the Panel, which will take place in Busan, Republic of Korea, from 11-14 October 2010.

A compromise solution in terms of dates was finally proposed which was later confirmed as also feasible for the hosts in Liege, Belgium. The proposal of the Bureau was therefore to hold the meeting from 25-27 August 2010. Furthermore, it was proposed that the Article 2 cross-working group meeting would be held back-to-back with this meeting on 24th August, 2010.

Other comments made on the Synthesis Report dealt with the scope of the report, its timing and contents. For example, Bureau members asked for more clarity on the broad outline sections 3 and 4. It was also expressed that the scoping meeting should allow for integration and bringing out key questions and therefore break-out groups might not be the structure needed to carry forward these insights. For example, concern was expressed that each group may deal with the same issues, but in a slightly different way. It was also suggested that the writing team for the Synthesis Report consider policy targets and models of reduced complexity in order to provide the maximum amount of information to policymakers, yet avoid criticisms about being policy-prescriptive.

Several members of the Bureau felt that it would be a good moment for governments to again provide comments prior to the Synthesis Report scoping meeting in order to figure out more concretely what participants of the meeting could bring forward. While some felt the scope of the Synthesis Report might be further improved at a later stage (after the first SYR scoping meeting) to meet the needs of policymakers relevant to upcoming discussions at the Conference of the Parties to the UNFCCC, it was also suggested that the IPCC should not ignore the targets relevant to Article 2 to which the Copenhagen Accord refers to. In all cases, the Bureau generally felt that delaying the scoping process to the Synthesis Report would not be a solution as it was considered important to clarify as much as possible what policy-relevant work is required by the Working Groups early in the AR5 process.

5. COMMUNICATION STRATEGY

Ms Isabel Garcia-Gill, Senior Communication and Media Relations Manager at the IPCC Secretariat, presented the IPCC draft Communications Strategy to the Bureau. The Chair explained that the IPCC has been active already, while the Secretariat has had limited resources, but that it is important to prepare for any future communication needs, for example during the period when the IAC's review of the IPCC processes and procedures will be released.

Bureau members welcomed Ms. Isabel Garcia-Gill and thanked her for her presentation. After expressing general support for the communication strategy, they also expressed some of their concerns. While the Bureau welcomed the need for a more proactive communications strategy, there were some hesitations expressed on the use of a few of the mentioned alternative outlets to communicate with members of the public such as blogs. The Bureau requested that the Communications Strategy be revised based on such further inputs provided by governments.

6. REVIEW OF IPCC BY THE INTERACADEMY COUNCIL (IAC)

The Chair briefed the Bureau about the IAC review of the IPCC processes and procedures, the timing of their report and their request for further information about the IPCC, in particular he briefed the Bureau about the IAC Review first committee meeting on 14 May 2010 in Amsterdam where both Mr Rajendra K. Pachauri and Ms Renate Christ explained the IPCC's existing processes and procedures. He explained that the IAC had asked for the contact details of elected officials and of previous Co-Chairs and the contact details of the AR4 CLAs and Review Editors and the list of AR5 authors as soon as it could be made available. He noted that the IAC might want to speak to a few Bureau members. It was considered impartial that the IPCC be prepared to deal with the media after the release of the IAC report. It was also suggested that Members of the IPCC be asked to comment on the report in preparation for the Plenary. The Chair explained that the report of the IAC review committee will most likely not be shared with the IPCC before it is released; however a compilation of government comments on the report would assist considerations by the Panel at its 32nd Session.

7. NEAR TERM STEPS TO IMPROVE IPCC PROCESS AND PROCEDURES

Mr Thomas Stocker made a brief oral presentation on behalf of the small Task Group on Procedures that was formed at the request of the IPCC Chair in March 2010. The informal task group, consisting of Mr Thomas Stocker (Chair), Mr Hoesung Lee, Mr Jean-Pascal van Ypersele, Mr Youba Sokona, Ms Kristie Ebi and Ms Renate Christ, was asked to consider the following topics: procedures for preparing IPCC reports, management and structure issues, how to deal with errors, conflict of interest, and security and confidentiality. Mr. Stocker informed the Bureau that there is a considerable overlap between the terms of reference for the independent review by the IAC and the topics for the task group. Although some recommendations were given by the task group, Mr Stocker stressed the importance that this work should not prejudice the independence of the IAC review. This view was shared by most of the Bureau members. It was agreed that an e-mail message of Mr Stocker containing the report and recommendations by the task group would be sent to the Bureau members for their consideration and comments.

8. ADMISSION OF OBSERVER ORGANIZATIONS

Ms Renate Christ presented BUR-XLI/Doc. 3, Rev. 1 to the Bureau containing the applications from organizations soliciting observer status with the IPCC. New applications were received on time from the following five organizations: Humane Society International (HSI), New World Hope Organization, Organization of Development and Human Rights of Cameroon (GICAR-CAM), Institute of Energy Policy and Research, Universiti Tenaga Nasional (UNITEN) and Transparency International (TI). HSI, New World Hope Organization and TI have already observer status with

UNFCCC. The Bureau endorsed the proposal by the Secretariat and recommended acceptance to the IPCC Plenary at their next Session in Busan in October 2010.

9. PROGRESS REPORTS

9.1 Special Reports

Mr Chris Field, Co-Chair of Working Group II, presented BUR-XLI/Doc. 5 and gave an update on the progress of work on the Special Report Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX). He informed the Bureau that two Lead Authors meetings were held, the first one from 9-12 November 2009 in Panama and the second meeting from 22-25 March 2010 in Hanoi, Vietnam. The zero-order draft will be ready in June/July 2010 and there will be a third Lead Author meeting from 25-28 October in Geneva. The release of the SREX is still expected in November 2011.

Mr Ottmar Edenhofer, Co-Chair of Working Group III, presented BUR-XLI/Doc.4 and gave an update on the progress of work on the Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN). The first expert meeting took place from 1-2 February 2010 in Washington DC, where an interesting discussion took place on the use of grey literature. The third Lead Authors meeting was held from 2-5 March 2010 in Oxford, UK, and was very productive. Comments from expert reviewers are expected now and will be collated by the Technical Support Unit of Working Group III.

9.2 Task Force on National Greenhouse Gas Inventories (TFI)

Ms Thelma Krug and Mr Taka Hiraishi, Co-Chairs of the Task Force Bureau, presented BUR-XLI/Doc.6 and gave an update on the progress of work of the Task Force on National Greenhouse Gas Inventories. The Bureau was informed that the TFI has been holding a series of expert meetings which aim at assisting users of the IPCC guidelines. From 23-25 February 2010 an expert meeting on National Forest GHG Inventories was held in Yokohama, Japan. From 23-25 March, an expert meeting on Uncertainty and Validation of Emission Inventories was held in Utrecht, the Netherlands. The TFI plans to hold another expert meeting from 9-11 August 2010 in Sydney, Australia, on the use of "Tier 3" approaches in GHG inventories.

The TFI is considering holding a joint emission inventory conference with the Institute for Global Environmental Strategies (IGES), the host of the TFI Technical Support Unit, in early 2011. The aim of this conference will be to provide a forum for scientific and technical exchange between inventory participants to improve the use of the IPCC Inventory Guidelines.

9.3 IPCC scholarship programme

Ms Renate Christ presented BUR-XLI/Doc.10 and gave an update on the scholarship programme. Mr Rajendra Pachauri drew attention to the outcome of the first meeting of the Science Board which met together with the Board of Trustees of the IPCC Scholarship Programme on 8 February 2010 in New Delhi, India, as well as a second meeting of the Science Board which met on 20 May 2010 during the Bureau meeting. He noted that the Science Board has provided guidance on how to develop the programme and helped to refine the funding proposal, as well as the call for proposals. He explained that there has been extensive contact with potential donors and a good response so far. He explained that two donors have said they would like to help start the program, providing a range of 6-8 scholarships in the first year. He mentioned that work is continuing on the Call for Proposals and currently the aim is to issue the first round of scholarships before the end of the year, in order to get the first students into programmes that may start in the next academic year (2011-2012). He noted that there was a formal launch of the Programme in Copenhagen during COP15 and the first donor, Ms. Gro Harlem Brundtland, contributed and was present at this time, leading to a positive response from the media, and giving the Programme a good start. He thanked the Secretariat for its support, in particular Ms Brenda Abrar-Milani, and Ms Mary Jean Burer.

9.4 Task Group on Data and Scenario Support for Impacts and Climate Analysis (TGICA)

No written report was received from the Co-Chairs of TGICA. Since the two Co-Chairs, Mr José Marengo and Mr Richard Moss, were not present at the Bureau meeting, Mr Chris Field was asked to give a brief oral report. Mr Field informed the Bureau that TGICA will hold its 16th Session from 4-6 August 2010 in Boulder, Colorado (USA).

9.5 Other

The Chairman proposed to discuss under this agenda item the Scenarios for AR5. Some Bureau members expressed the wish for more transparency about this process, so that the catalytic role of the IPCC can be fully exerted.

10. OTHER BUSINESS

No topics were raised under this agenda item.

11. TIME AND PLACE OF THE NEXT SESSION

Different dates and venues were proposed for the 42nd Session of the IPCC Bureau. The importance was stressed to have a Bureau meeting after the release of the IAC report and before the 32nd Panel Session. The Chairman asked the Secretariat to explore the possibilities of a one day Bureau meeting in Busan, Republic of Korea, before the start of the next Panel Session. It was later confirmed and feasible for the hosts that the 42nd Session will be held on 10 October 2010 in Busan.

12. CLOSING OF THE SESSION

The 41st Session of the IPCC Bureau was closed by Mr Pachauri, Chairman of the IPCC, on 20 May 2010 at 17h00.

ANNEX 1

IPCC BUREAU – FORTY-FIRST SESSION
Geneva, 19-20 May 2010

BUR-XLI/Doc. 1
(1.IV.2010)
Agenda Item: 1
ENGLISH ONLY

PROVISIONAL AGENDA

(Submitted by the IPCC Secretariat)

- 1. OPENING OF THE SESSION**
- 2. APPROVAL OF THE DRAFT REPORT OF THE 40th SESSION**
- 3. SELECTION OF LEAD AUTHORS (CLA and LA) AND REVIEW EDITORS FOR THE IPCC 5TH ASSESSMENT REPORT (AR5)**
- 4. PLANNING OF THE AR5 SYNTHESIS SCOPING MEETING**
- 5. COMMUNICATION STRATEGY**
Review of recent public debate on IPCC and future communication activities
- 6. REVIEW OF IPCC BY THE INTER ACADEMY COUNCIL (IAC)**
Background information and next steps
- 7. NEAR TERM STEPS TO IMPROVE IPCC PROCESS AND PROCEDURES**
- 8. ADMISSION OF OBSERVER ORGANIZATIONS**
- 9. PROGRESS REPORTS**
 - 9.1 Special Reports
 - 9.2 TFI
 - 9.3 IPCC scholarship programme
 - 9.4 TGICA
 - 9.5 Other
- 10. OTHER BUSINESS**
- 11. TIME AND PLACE OF THE NEXT SESSION**
- 12. CLOSING OF THE SESSION**

List of Participants 41st Session of the IPCC Bureau
Geneva, 19-20 May 2010

Rajendra K. PACHAURI Chairman IPCC INDIA	B	Jean JOUZEL Laboratoire des Sciences du Climat et l'Environnement (LSCE) FRANCE	B
Vicente Ricardo BARROS Co-Chair WG II CIMA-FCEN Ciudad Universitaria ARGENTINA	B	Ottmar EDENHOFER Co-Chair WG III Potsdam Institute for Climate Impact GERMANY	B
Neville SMITH Bureau of Meteorology AUSTRALIA	B	Carlo CARRARO University of Venice ITALY	B
Jean-Pascal van YPERSELE Vice-Chair of the IPCC Institut d'Astronomie et de Géophysique G. Lemaître (ASTR) BELGIUM	B	Taka HIRAISHI Co-Chair TFI c/o Institute for Global Environmental JAPAN	B
Thelma KRUG Co-Chair TFI Instituto Nacional de Pesquisas Espaciais BRAZIL	B	Nirivololona RAHOLIJAO National Meteorological Service MADAGASCAR	B
Suzana KAHN RIBEIRO Federal University of Rio de Janeiro BRAZIL	B	Fredolin T. TANGANG School of Environmental and Natural Resource Sciences Faculty of Science and Technology MALAYSIA	B
Françis William ZWIERS Environment Canada CANADA	B	Amjad ABDULLA Ministry of Housing, Transport & Environment MALDIVES	B
Dahe QIN Co-Chair WG I China Meteorological Administration CHINA	B	Antonina IVANOVA BONCHEVA Autonomous University of Southern Baja California MEXICO	B
Jing MING Assistant Qin Dahe China Meteorological Administration CHINA		Abdalah MOKSSIT Direction de la Météorologie Nationale MOROCCO	B
Ramon PICHES MADRUGA Co-Chair WG II Centro de Investigaciones de la Economía Mundial (CIEM) CUBA	B	David WRATT National Institute of Water & Atmospheric Research (NIWA) NEW ZEALAND	B

Eduardo CALVO
UNMSM
PERU

B

Yun GAO
China Meteorological Administration
CHINA

Hoesung LEE
Vice-Chair of the IPCC
Keimyung University, College of Environment
REPUBLIC OF KOREA

B

Tomás GUTIERREZ PEREZ
Instituto de Meteorología
CUBA

Sergey M. SEMENOV
Institute of Global Climate & Ecology - IGCE,
RUSSIAN FEDERATION

B

Nicolas BERIOT
Observatoire National des Effets du
Réchauffement Climatique - ONERC
FRANCE

José Manuel MORENO
Facultad de Ciencias Ambientales
Universidad de Castilla la Mancha
SPAIN

B

Ursula FUENTES HUTFILTER
Bundsumweltministerium
GERMANY

Ismail A. ELGIZOULI
Vice-Chair of the IPCC
Higher Council for Environment & Natural
Resources (HCENR)
SUDAN

B

Subodh Kumar SHARMA
Ministry of Environment and Forests
INDIA

Thomas F. STOCKER
Co-Chair WG I
Climate and Environmental Physics Institute
SWITZERLAND

B

Hiroshi ONO
Global Environment Bureau
Ministry of the Environment
JAPAN

Youba SOKONA
Co-Chair WG III
Sahara and Sahel Observatory (OSS)
TUNISIA

B

Nimbol RAELINERA
Direction Générale de la Météorologie
MADAGASCAR

Jim SKEA
UK Energy Research Centre
UNITED KINGDOM

B

Tomás GUTIERREZ PEREZ
Instituto de Meteorología
CUBA

Nicolas BERIOT
Observatoire National des Effets du
Réchauffement Climatique - ONERC
FRANCE

Christopher FIELD
Co-Chair WG II
Department of Global Ecology
Carnegie Institution
USA

B

Ursula FUENTES HUTFILTER
Bundsumweltministerium
GERMANY

GOVERNMENT REPRESENTATIVES

Martine VANDERSTRAETEN
Belgian Federal Public Planning Service for
BELGIUM

Subodh Kumar SHARMA
Ministry of Environment and Forests
INDIA

Kathryn LUNDY
Environment Canada
CANADA

Hiroshi ONO
Global Environment Bureau
Ministry of the Environment
JAPAN

Nimbol RAELINERA
Gov. Rep.
Direction Générale de la Météorologie
MADAGASCAR

Wan Azli Wan HASSAN
Malaysian Meteorological Department
MALAYSIA

Birama DIARRA
Direction Nationale de la Meteorologie
MALI

Andrés FLORES MONTALVO
Instituto Nacional de Ecología (INE)
MEXICO

Howard LARSEN
Ministry for the Environment
NEW ZEALAND

Alberto HART
Ministry of Foreign Relations of Peru
PERU

Kim BYOUNG-CHEOL
Korea Meteorological Administration (KMA)
REPUBLIC OF KOREA

Abdullah K. TAWLAH
Saudi Aramco
SAUDI ARABIA

Concepción MARTINEZ LOPE
Ministerio de Medio Ambiente y Medio Rural y
SPAIN

Hana HAMADALLAH MOHAMED
Higher Council for Environment and Natural
Resources
SUDAN

José ROMERO
Federal Department of the Environment,
Transport, Energy and Communications
SWITZERLAND

David A. WARRILOW
Department of Energy and Climate Change
UNITED KINGDOM

Trigg TALLEY
U.S. Department of State
USA

ORGANIZATIONS

Michel JARRAUD
WMO
SWITZERLAND

Wanna TANUNCHAIWATANA
UNFCCC
GERMANY

Peter GILRUTH
UNEP
KENYA

TECHNICAL SUPPORT UNIT

Pauline MIDGLEY
Head, IPCC WG I Technical Support Unit
SWITZERLAND

Gian-Kasper PLATTNER
IPCC WG I Technical Support Unit
SWITZERLAND

Simon ALLEN
IPCC WG I Technical Support Unit
SWITZERLAND

Melinda TIGNOR
IPCC WG I Technical Support Unit
SWITZERLAND

Kristie EBI
Head, IPCC WG II Technical Support Unit
USA

Dave DOKKEN
IPCC WG II Technical Support Unit
USA

Patrick MATSCHOSS
Head, IPCC WG III Technical Support Unit
GERMANY

Susanne KADNER
IPCC WG III Technical Support Unit
GERMANY

Christoph VON STECHOW
IPCC WG III Technical Support Unit
GERMANY

Kristin SEYBOTH
IPCC WG III Technical Support Unit
GERMANY

Simon EGGLESTON
Head, Technical Support Unit TFI
JAPAN

Kiyoto TANABE
Technical Support Unit TFI
JAPAN

IPCC SECRETARIAT

Renate CHRIST
Secretary of the IPCC

Mary-Jean BURER
Programme Officer

Sophie SCHLINGEMANN
Legal and Outreach Officer

Isabel GARCIA-GILL
Senior Communication and Media Relations
Programme Manager

Working Group I Contribution to the IPCC Fifth Assessment Report Climate Change 2013: The Physical Science Basis

Coordinating Lead Authors, Lead Authors and Review Editors

Chapter 1: Introduction

Coordinating Lead Authors

Ulrich CUBASCH	GERMANY
Donald WUEBBLES	USA

Lead Authors

Deliang CHEN	SWEDEN
Maria Cristina FACCHINI	ITALY
David FRAME	UNITED KINGDOM
Natalie MAHOWALD	USA
Murat TURKES	TURKEY
Jan-Gunnar WINTHER	NORWAY

Review Editors

Yihui DING	CHINA
Linda MEARNS	USA
Peter WADHAMS	UNITED KINGDOM

Chapter 2: Observations: Atmosphere and Surface

Coordinating Lead Authors

Dennis HARTMANN	USA
Albert KLEIN TANK	THE NETHERLANDS
Matilde RUSTICUCCI	ARGENTINA

Lead Authors

Lisa ALEXANDER	AUSTRALIA
Stefan BRONNIMANN	SWITZERLAND
Yassine Abdul-Rahman CHARABI	OMAN
Frank DENTENER	EC / THE NETHERLANDS
Ed DLUGOKENCKY	USA
David EASTERLING	USA
Alexey KAPLAN	USA
Nzioka John MUTHAMA	KENYA
Brian SODEN	USA
Peter THORNE	USA
Martin WILD	SWITZERLAND
Panmao ZHAI	CHINA

Review Editors

Jim HURRELL	USA
Jose MARENGO	BRAZIL
Fredolin TANGANG	MALAYSIA
Pedro VITERBO	PORTUGAL

Chapter 3: Observations: Oceans

Coordinating Lead Authors

Monika RHEIN	GERMANY
Stephen RINTOUL	AUSTRALIA

Lead Authors

Shigeru AOKI	JAPAN
Edmo CAMPOS	BRAZIL
Don CHAMBERS	USA
Richard FEELY	USA
Sergey GULEV	RUSSIA
Gregory JOHNSON	USA
Simon JOSEY	UNITED KINGDOM
Andrey KOSTIANOY	RUSSIA
Cecilie MAURITZEN	NORWAY
Dean ROEMMICH	USA
Lynne TALLEY	USA
Fan WANG	CHINA

Review Editors

Howard FREELAND	CANADA
Yukihiro NOJIRI	JAPAN
Ilana WAINER	BRAZIL

Chapter 4: Observations: Cryosphere

Coordinating Lead Authors

Joey COMISO	USA
David VAUGHAN	UNITED KINGDOM

Lead Authors

Ian ALLISON	AUSTRALIA
Jorge CARRASCO	CHILE
Georg KASER	AUSTRIA
Ronald KWOK	USA
Philip MOTE	USA
Tavi MURRAY	UNITED KINGDOM
Frank PAUL	SWITZERLAND
Jiawen REN	CHINA
Eric RIGNOT	USA
Olga SOLOMINA	RUSSIA
Koni STEFFEN	USA
Tingjun ZHANG	USA

Review Editors

Jonathan BAMBER	UNITED KINGDOM
Philippe HUYBRECHTS	BELGIUM
Peter LEMKE	GERMANY

Chapter 5: Information from Paleoclimate Archives

Coordinating Lead Authors

Valerie MASSON-DELMOTTE	FRANCE
Michael SCHULZ	GERMANY

Lead Authors

Ayako ABE-OUCHI	JAPAN
Juerg BEER	SWITZERLAND
Andrey GANOPOLSKI	GERMANY
Jesus Fidel GONZALEZ ROUCO	SPAIN
Eystein JANSEN	NORWAY
Kurt LAMBECK	AUSTRALIA
Juerg LUTERBACHER	GERMANY
Tim NAISH	NEW ZEALAND
Timothy OSBORN	UNITED KINGDOM
Bette OTTO-BLIESNER	USA
Terrence QUINN	USA
Rengaswamy RAMESH	INDIA
Maisa ROJAS	CHILE
Xue Mei SHAO	CHINA
Axel TIMMERMANN	USA

Review Editors

Fatemeh RAHIMZADEH	IRAN
Dominique RAYNAUD	FRANCE
Heinz WANNER	SWITZERLAND
De'er ZHANG	CHINA

Chapter 6: Carbon and Other Biogeochemical Cycles

Coordinating Lead Authors

Philippe CIAIS	FRANCE
Christopher SABINE	USA

Lead Authors

Govindasamy BALA	INDIA
Laurent BOPP	FRANCE
Victor BROVKIN	GERMANY
Josep CANADELL	AUSTRALIA
Abha CHHABRA	INDIA
Ruth DEFRIES	USA
Jim GALLOWAY	USA
Martin HEIMANN	GERMANY
Christopher JONES	UNITED KINGDOM
Corinne LE QUERE	UNITED KINGDOM
Ranga MYNENI	USA
Shilong PIAO	CHINA
Peter THORNTON	USA

Review Editors

Christoph HEINZE	NORWAY
Pieter TANS	USA
Steven WOFSY	USA

Chapter 7: Clouds and Aerosols

Coordinating Lead Authors

Olivier BOUCHER	UNITED KINGDOM
David RANDALL	USA

Lead Authors

Paulo ARTAXO	BRAZIL
Christopher BREHERTON	USA
Piers FORSTER	UNITED KINGDOM
Veli-Matti KERMINEN	FINLAND
Yutaka KONDO	JAPAN
Ilan KOREN	ISRAEL
Hong LIAO	CHINA
Ulrike LOHMANN	SWITZERLAND
Philip RASCH	USA
S. K. SATHEESH	INDIA
Steven SHERWOOD	AUSTRALIA
Bjorn STEVENS	GERMANY
Xiao-Ye ZHANG	CHINA

Review Editors

Sandro FUZZI	ITALY
Joyce PENNER	USA
Venkatachalam RAMASWAMY	USA
Claudia STUBENRAUCH	FRANCE

Chapter 8: Anthropogenic and Natural Radiative Forcing

Coordinating Lead Authors

Gunnar MYHRE	NORWAY
Drew SHINDELL	USA

Lead Authors

Francois-Marie BREON	FRANCE
William COLLINS	UNITED KINGDOM
Jan FUGLESTVEDT	NORWAY
Jianping HUANG	CHINA
Dorothy KOCH	USA
Jean-Francois LAMARQUE	USA
David LEE	UNITED KINGDOM
Blanca MENDOZA	MEXICO
Teruyuki NAKAJIMA	JAPAN
Alan ROBOCK	USA
Leon ROTSTAYN	AUSTRALIA
Graeme STEPHENS	USA
Hua ZHANG	CHINA

Review Editors

Daniel JACOB	USA
A.R. RAVISHANKARA	USA
Keith SHINE	UNITED KINGDOM

Chapter 9: Evaluation of Climate Models

Coordinating Lead Authors

Gregory FLATO	CANADA
Jochem MAROTZKE	GERMANY

Lead Authors

Babatunde ABIODUN	SOUTH AFRICA
Pascale BRACONNOT	FRANCE
Sin Chan CHOU	BRAZIL
William COLLINS	USA
Peter COX	UNITED KINGDOM
Fatima DRIOUECH	MOROCCO
Seita EMORI	JAPAN
Veronika EYRING	GERMANY
Chris FOREST	USA
Peter GLECKLER	USA
Eric GUILYARDI	FRANCE
Christian JAKOB	AUSTRALIA
Vladimir KATTSOV	RUSSIA
Chris REASON	SOUTH AFRICA
Markku RUMMUKAINEN	SWEDEN

Review Editors

Isaac HELD	USA
Andy PITMAN	AUSTRALIA
Serge PLANTON	FRANCE
Zong-Ci ZHAO	CHINA

Chapter 10: Detection and Attribution of Climate Change: from Global to Regional

Coordinating Lead Authors

Nathaniel BINDOFF	AUSTRALIA
Peter STOTT	UNITED KINGDOM

Lead Authors

Krishna Mirle ACHUTARAO	INDIA
Myles ALLEN	UNITED KINGDOM
Nathan GILLET	CANADA
David GUTZLER	USA
Kabumbwe HANSINGO	ZAMBIA
Gabriele HEGERL	UNITED KINGDOM
Yongyun HU	CHINA
Suman JAIN	ZAMBIA
Igor MOKHOV	RUSSIA
James OVERLAND	USA
Judith PERLWITZ	USA
Rachid SEBBARI	MOROCCO
Xuebin ZHANG	CANADA

Review Editors

Judit BARTHOLY	HUNGARY
Robert VAUTARD	FRANCE
Tetsuzo YASUNARI	JAPAN

Chapter 11: Near-term Climate Change: Projections and Predictability

Coordinating Lead Authors

Ben KIRTMAN	USA
Scott POWER	AUSTRALIA

Lead Authors

Akintayo John ADEDOYIN	BOTSWANA
George BOER	CANADA
Roxana BOJARIU	ROMANIA
Ines CAMILLONI	ARGENTINA
Francisco DOBLAS-REYES	SPAIN
Arlene FIORE	USA
Masahide KIMOTO	JAPAN
Gerald MEEHL	USA
Michael PRATHER	USA
Abdoulaye SARR	SENEGAL
Christoph SCHAR	SWITZERLAND
Rowan SUTTON	UNITED KINGDOM
Geert Jan VAN OLDENBORGH	THE NETHERLANDS
Gabriel VECCHI	USA
Huijun WANG	CHINA

Review Editors

Pascale DELECLUSE	FRANCE
Tim PALMER	UNITED KINGDOM
Theodore SHEPHERD	CANADA
Francis ZWIERS	CANADA

Chapter 12: Long-term Climate Change: Projections, Commitments and Irreversibility

Coordinating Lead Authors

Matthew COLLINS	UNITED KINGDOM
Reto KNUTTI	SWITZERLAND

Lead Authors

Julie ARBLASTER	AUSTRALIA
Ken CALDEIRA	USA
Jean-Louis DUFRESNE	FRANCE
Thierry FICHEFET	BELGIUM
Pierre FRIEDLINGSTEIN	UNITED KINGDOM
Xuejie GAO	CHINA
William GUTOWSKI	USA
Tim JOHNS	UNITED KINGDOM
Gerhard KRINNER	FRANCE
Mxolisi SHONGWE	SWAZILAND
Claudia TEBALDI	USA
Andrew WEAVER	CANADA
Michael WEHNER	USA

Review Editors

Sylvie JOUSSAUME	FRANCE
Abdalah MOKSSIT	MOROCCO
Karl TAYLOR	USA
Simon TETT	UNITED KINGDOM

Chapter 13: Sea Level Change

Coordinating Lead Authors

John CHURCH	AUSTRALIA
Peter CLARK	USA

Lead Authors

Anny CAZENAVE	FRANCE
Jonathan GREGORY	UNITED KINGDOM
Svetlana JEVREJEVA	UNITED KINGDOM
Anders LEVERMANN	GERMANY
Mark MERRIFIELD	USA
Glenn MILNE	CANADA
Robert NEREM	USA
Patrick NUNN	FIJI
Antony PAYNE	UNITED KINGDOM
W. Tad PFEFFER	USA
Detlef STAMMER	GERMANY
Alakkat UNNIKRISHNAN	INDIA

Review Editors

Richard ALLEY	USA
Jean JOUZEL	FRANCE
Roderik VAN DE WAL	THE NETHERLANDS
Cunde XIAO	CHINA

Chapter 14: Climate Phenomena and their Relevance for Future Regional Climate Change

Coordinating Lead Authors

Jens Hesselbjerg CHRISTENSEN	DENMARK
Kanikicharla KRISHNA KUMAR	INDIA

Lead Authors

Edvin ALDRIAN	INDONESIA
Soon-Il AN	KOREA
Iracema CAVALCANTI	BRAZIL
Manuel DE CASTRO	SPAIN
Wenjie DONG	CHINA
Prashant GOSWAMI	INDIA
Alex HALL	USA
Joseph Katongo KANYANGA	ZAMBIA
Akio KITOH	JAPAN
James KOSSIN	USA
Ngar-Cheung LAU	USA
James RENWICK	NEW ZEALAND
David STEPHENSON	UNITED KINGDOM
Shang-Ping XIE	USA
Tianjun ZHOU	CHINA

Review Editors

John FYFE	CANADA
Won-Tae KWON	KOREA
Kevin TRENBERTH	USA
David WRATT	NEW ZEALAND

Coordinating Lead Authors, Lead Authors, and Review Editors

Updated 23 February 2011

PART A: GLOBAL AND SECTORAL ASPECTS

Context for the AR5

Role	Name	Institution	Country/Organization
Ch. 1 — Point of departure			
CLA	Virginia Burkett	United States Geological Survey	USA
CLA	Avelino G. Suarez	Institute of Ecology and Systematics, Cuban Environmental Agency	Cuba
LA	Marco Bindi	University of Florence	Italy
LA	Cecilia Conde	Centro de Ciencias de la Atmósfera, Universidad Nacional Autónoma de México	Mexico
LA	William Hare	Potsdam Institute for Climate Impact Research	Germany
LA	Rupa Mukerji	Intercooperation Social Development India	India
LA	Michael Prather	University of California, Irvine	USA
LA	Asuncion Lera St.Clair	University of Bergen	Norway
LA	Gary Yohe	Wesleyan University	USA
RE	Hervé Le Treut	Laboratoire de Météorologie Dynamique / Institut Pierre Simon Laplace	France
RE	Jean Palutikof	Griffith University	Australia
Ch. 2 — Foundations for decisionmaking			
CLA	Roger Jones	Victoria University	Australia
CLA	Anand Patwardhan	Indian Institute of Technology-Bombay	India
LA	Stewart Cohen	Environment Canada	Canada
LA	Suraje Dessai	University of Exeter	UK
LA	Annamaria Lammel	Université Paris 8	France
LA	Robert Lempert	RAND Corporation	USA
LA	Monirul Mirza	Environment Canada	Canada
LA	Hans von Storch	Helmholtz-Zentrum Geesthacht - Zentrum für Material- und Küstenforschung	Germany
RE	Rosina Bierbaum	University of Michigan	USA
RE	Nicholas King	Global Biodiversity Information Facility	South Africa

*Additional members may be added by the Working Group II Bureau for teams without the full complement of Lead Authors and Review Editors

**CLA = Coordinating Lead Author, LA=Lead Author, RE=Review Editor

WGII AR5 Chapter Teams

Natural and Managed Resources and Systems, and Their Uses

Role	Name	Institution	Country/Organization
Ch. 3 — Freshwater resources			
CLA	Blanca Jimenez	Universidad Nacional Autónoma de México	Mexico
CLA	Taikan Oki	University of Tokyo	Japan
LA	Nigel Arnell	University of Reading	UK
LA	Gerardo Benito	Spanish Council for Scientific Research	Spain
LA	J. Graham Cogley	Trent University	Canada
LA	Petra Doell	Goethe University Frankfurt	Germany
LA	Tong Jiang	China Meteorological Administration	China
LA	Shadrack S. Mwakalila	University of Dar es Salaam	United Republic of Tanzania
RE	Pavel Kabat	Wageningen University and Research Centre	Netherlands
RE	Zbigniew Kundzewicz	Polish Academy of Sciences	Poland
Ch. 4 — Terrestrial and inland water systems			
CLA	Robert Scholes	Council for Scientific and Industrial Research	South Africa
CLA	Josef Settele	Helmholtz-Centre for Environmental Research - UFZ	Germany
LA	Richard Betts	Met Office Hadley Centre	UK
LA	Stuart Bunn	Griffith University	Australia
LA	Paul Leadley	Universite Paris-Sud 11	France
LA	Daniel Nepstad	Instituto de Pesquisa Ambiental da Amazônia (IPAM)	USA
LA	Jonathan Overpeck	University of Arizona	USA
LA	Miguel Angel Taboada	Instituto Nacional de Tecnología Agropecuaria	Argentina
RE	Andreas Fischlin	ETH Zurich, Systems Ecology	Switzerland
RE	José Moreno	University of Castilla - La Mancha	Spain
RE	Terry L. Root	Stanford University	USA
Ch. 5 — Coastal systems and low-lying areas			
CLA	Iñigo J. Losada	Universidad de Cantabria	Spain
CLA	Poh Poh Wong	National University of Singapore	Singapore
LA	Jean-Pierre Gattuso	Centre National de la Recherche Scientifique	France
LA	Abdellatif Khattabi	Ecole Nationale Forestiere d'Ingénieurs	Morocco
LA	Yoshiki Saito	National Institute of Advanced Industrial Science and Technology	Japan
LA	Asbury Sallenger	U.S. Geological Survey	USA
LA	Anond Snidvongs	Chulalongkorn University	Thailand
RE	Robert Nicholls	University of Southampton	UK
RE	Filipe Santos	University of Lisbon	Portugal

WGII AR5 Chapter Teams

Role	Name	Institution	Country/Organization
Ch. 6 — Ocean systems			
CLA	David Karl	University of Hawaii	USA
CLA	Hans-O. Pörtner	Alfred-Wegener-Institute for Polar and Marine Research	Germany
LA	Phil Boyd	National Institute of Water and Atmosphere	New Zealand
LA	Salvador Lluch-Cota	Centro de Investigaciones Biológicas del Noroeste, S.C.	Mexico
LA	Yukihiro Nojiri	National Institute for Environmental Studies	Japan
LA	Daniela Schmidt	University of Bristol	UK
LA	Peter Zavialov	P.P. Shirshov Institute of Oceanology	Russian Federation
RE	Kenneth Drinkwater	Institute of Marine Research	Norway
RE	Alexander Polonsky	Marine Hydrophysical Institute of National Academy of Sciences	Ukraine
Ch. 7 — Food production systems and food security			
CLA	John R Porter	University of Copenhagen	Denmark
CLA	Liyong Xie	Shenyang Agricultural University	China
LA	Andrew Challinor	University of Leeds	UK
LA	Kevern Cochrane	Food and Agriculture Organization	FAO
LA	Mark Howden	Commonwealth Scientific and Industrial Research Organization	Australia
LA	Muhammad Mohsin Iqbal	Global Change Impact Studies Centre	Pakistan
LA	David Lobell	Stanford University	USA
LA	María Isabel Travasso	Instituto Nacional de Tecnología Agropecuaria	Argentina
RE	Pramod Aggarwal	Indian Agricultural Research Institute, New Delhi	India
RE	Kaija Hakala	MTT Agrifood Research Finland	Finland

WGII AR5 Chapter Teams

Human Settlements, Industry, and Infrastructure

Role	Name	Institution	Country/Organization
Ch. 8 — Urban Areas			
CLA	Aromar Revi	Indian Institute for Human Settlements	India
CLA	David Satterthwaite	International Institute for Environment and Development	UK
LA	Fernando Aragon	Centro Mario Molina	Mexico
LA	Jan Corfee-Morlot	Organisation for Economic Co-operation and Development	USA / OECD
LA	Robert B. R. Kiunsi	Ardhi University	United Republic of Tanzania
LA	Mark Pelling	King's College London	UK
LA	Debra Roberts	Ethekwini Municipality	South Africa
LA	William Solecki	City University of New York	USA
RE	John Balbus	National Institute of Environmental Health Sciences	USA
RE	Omar-Dario Cardona	Universidad Nacional de Colombia	Colombia
Ch. 9 — Rural Areas			
CLA	Purnamita Dasgupta	Institute of Economic Growth	India
CLA	John Morton	Natural Resources Institute, University of Greenwich	UK
LA	David Dodman	International Institute for Environment and Development	Jamaica
LA	Baris Karapinar	University of Bern	Switzerland
LA	Francisco Meza	Pontificia Universidad Catolica de Chile	Chile
LA	Marta Rivera-Ferre	Autonomous University of Barcelona??	Spain
LA	Aissa Toure Sarr	MGS Consulting	Senegal
LA	Katharine Vincent	Kulima Integrated Development Solutions (Pty) Ltd and University of the Witwatersrand, Johannesburg	South Africa
RE	Habib Amamou	Ministry of Agriculture, Water Resources and Fisheries	Tunisia
RE	Edward Carr	University of South Carolina	USA
Ch. 10 — Key economic sectors and services			
CLA	Douglas Arent	National Renewable Energy Laboratory	USA
CLA	Richard S.J. Tol	Vrije Universiteit Amsterdam	Netherlands
LA	Eberhard Faust	Munich Reinsurance Company	Germany
LA	Joseph P. Hella	Sokoine University of Agriculture	Tanzania
LA	Surender Kumar	University of Delhi	India
LA	Ken Strzepek	UNU - World Institute for Development Economics Research	UNU / USA
LA	Ferenc L. Tóth	International Atomic Energy Agency	IAEA / Hungary
LA	Denghua Yan	China Institute of Water Resources and Hydropower Research	China
RE	Amjad Abdulla	Ministry of Environment, Energy and Water	Maldives
RE	Haroon Kheshgi	ExxonMobil Corporate Strategic Research	USA
RE	He Xu	Center for Strategic Environmental Assessment, Nankai University	China

WGII AR5 Chapter Teams

Human Health, Well-Being, and Security

Role	Name	Institution	Country/Organization
Ch. 11 — Human health			
CLA	Rita Colwell	University of Maryland College Park	USA
CLA	Alistair Woodward	University of Auckland	New Zealand
LA	Dave Chadee	University of the West Indies	Trinidad and Tobago
LA	Yasushi Honda	University of Tsukuba	Japan
LA	Qiyong Liu	National Institute for Communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention	China
LA	Jane Mukarugwiza Olwoch	CFES, Department of Geography, Geo-informatics & Meteorology, University of Pretoria	South Africa
LA	Boris Revich	Institute of Forecasting Russian Academy of Science	Russian Federation
LA	Rainer Sauerborn	Umeå University	Sweden
LA	Kirk Robert Smith	University of California, Berkeley	USA
RE	Ulisses Confalonieri	Oswaldo Cruz Foundation	Brazil
RE	Andrew Haines	London School of Hygiene and Tropical Medicine	UK
Ch. 12 — Human security			
CLA	Neil Adger	Tyndall Centre for Climate Change Research, University of East Anglia	UK
CLA	Juan Pulhin	University of the Philippine Los Baños	Philippines
LA	Jonathon Barnett	University of Melbourne	Australia
LA	Geoff Dabelko	Woodrow Wilson International Center for Scholars	USA
LA	Grete Hovelsrud	Center for International Climate and Environmental Research - Oslo	Norway
LA	Rajeswar Jonnalagadda	Centre for Climate Change and Environment Advisory; Dr. MCR HRD Institute of AP	India
LA	Marc Levy	Columbia University	USA
LA	Ursula Oswald-Spring	Centro Regional de Investigaciones Multidisciplinarias, Universidad Nacional Autónoma de México	Mexico
RE	Paulina Aldunce	University of Chile	Chile
RE	Robin Leichenko	Rutgers University	USA
Ch. 13 — Livelihoods and poverty			
CLA	Lennart Olsson	Lund University	Sweden
CLA	Maggie Opondo	University of Nairobi, Kenya	Kenya
LA	Arun Agrawal	University of Michigan	USA
LA	Siri Eriksen	Norwegian University of Life Sciences	Norway
LA	Shiming Ma	Institute of Environment and Sustainable Development in Agriculture	China
LA	Tom Mitchell	Overseas Development Institute	UK
LA	Petra Tschakert	Pennsylvania State University	USA
LA	Sumaya Zakiideen	Khartoum University	Sudan
RE	Rita Sharma	Retired Secretary to Government of India	India
RE	Etienne Piguet	University of Neuchatel	Switzerland

WGII AR5 Chapter Teams

Adaptation

Role	Name	Institution	Country/Organization
Ch. 14 — Adaptation needs and options			
CLA	Saleemul Huq	International Institute for Environment and Development	Bangladesh
CLA	Ian Noble	The World Bank	Australia
LA	Yury Anokhin	Institute of Global Climate and Ecology	Russian Federation
LA	JoAnn Carmin	Massachusetts Institute of Technology	USA
LA	Dieudonne Goudou	High Commission of Niger Valley Development	Niger
LA	Felino Lansigan	University of the Philippine Los Baños	Philippines
LA	Balgis Osman-Elasha	African Development Bank	Sudan
LA	Alicia Villamizar	Universidad Simón Bolívar	Venezuela
RE	Anthony Patt	International Institute for Applied Systems Analysis	Austria
RE	Kuniyoshi Takeuchi	International Centre for Water Hazard and Risk Management	Japan
Ch. 15 — Adaptation planning and implementation			
CLA	Nobuo Mimura	Ibaraki University	Japan
CLA	Roger Pulwarty	National Oceanic and Atmospheric Administration	USA
LA	Do Minh Duc	Hanoi University of Science	Vietnam
LA	Ibrahim Elshinnawy	National Water Research Center, Egypt	Egypt
LA	He-Qing Huang	Chinese Academy of Sciences	China
LA	Margaret Hiza Redsteer	U.S. Geological Survey	USA
LA	Johnson Ndi Nkem	United Nations Development Programme	Cameroon
LA	Roberto A. Sanchez Rodriguez	El Colegio de la Frontera Norte	Mexico
RE	Richard Moss	Joint Global Change Research Institute – Pacific Northwest National Laboratory	USA
RE	Walter Vergara	The World Bank	The World Bank

WGII AR5 Chapter Teams

Role	Name	Institution	Country/Organization
Ch. 16 — Adaptation opportunities, constraints, and limits			
CLA	Richard Klein	Stockholm Environment Institute	Sweden
CLA	Guy Midgley	South African National Biodiversity Institute	South Africa
CLA	Benjamin Preston	Oak Ridge National Laboratory	USA
LA	Mozaharul Alam	United Nations Environment Programme	Bangladesh
LA	Frans Berkhout	VU University	Netherlands
LA	Kirstin Dow	University of South Carolina / Carolinas RISA	USA
LA	Yu'e Li	Chinese Institute of Environment and Sustainable Development in Agriculture	China
LA	Elena Mateescu	National Meteorological Administration	Romania
LA	Rebecca Shaw	The Nature Conservancy	USA
RE	Habiba Gitay	The World Bank	Australia
RE	James Thurlow	United Nations University's World Institute for Development Economics Research	South Africa
Ch. 17 — Economics of adaptation			
CLA	Muyeye Chambwera	International Institute for Environment and Development	Zimbabwe
CLA	Geoff Heal	Columbia Business School	USA
LA	Carolina Dubeux	Federal University of Rio de Janeiro	Brazil
LA	Stephane Hallegatte	CIREN and Meteo-France	France
LA	Liza Leclerc	Independent Consultant	Canada
LA	Anil Markandya	Basque Centre for Climate Change	Spain
LA	Bruce McCarl	Texas A&M University	USA
LA	Reinhard Mechler	International Institute for Applied Systems Analysis	Austria
LA	James Neumann	Industrial Economics, Incorporated	USA
RE	Eduardo Calvo	Universidad Nacional Mayor de San Marcos	Peru
RE	Ana Iglesias	Polytechnic University of Madrid	Spain
RE	Stale Navrud	Norwegian University of Life Sciences	Norway

WGII AR5 Chapter Teams

Multi-Sector Impacts, Risks, Vulnerabilities, and Opportunities

Role	Name	Institution	Country/Organization
Ch. 18 — Detection and attribution of observed impacts			
CLA	Wolfgang Cramer	Potsdam Institute for Climate Impact Research	Germany
CLA	Gary Yohe	Wesleyan University	USA
LA	Maximilian Auffhammer	University of California, Berkeley	USA
LA	Christian Huggel	University of Zurich	Switzerland
LA	Ulf Molau	University of Gothenburg	Sweden
LA	Maria Assuncao Silva Dias	University of Sao Paulo	Brazil
LA	Andrew Solow	Woods Hole Oceanographic Institution	USA
LA	Dáithí Stone	University of Cape Town	Canada / South Africa
LA	Lourdes Tibig	The Manila Observatory	Philippines
RE	Rik Leemans	Wageningen Univeristy	Netherlands
RE	Bernard Seguin	Institut National de la Recherche Agronomique	France
RE	Neville Smith	Bureau of Meteorology	Australia
Ch. 19 — Emergent risks and key vulnerabilities			
CLA	Maximiliano Campos	Organization of American States	Costa Rica
CLA	Michael Oppenheimer	Princeton University	USA
LA	Joern Birkmann	United Nations University - Institute for Environment and Human Security	Germany
LA	Wendy B Foden	International Union for Conservation of Nature	South Africa
LA	George Luber	Centers for Disease Control and Prevention	USA
LA	Brian O'Neill	National Center for Atmospheric Research	USA
LA	Kiyoshi Takahashi	National Institute for Environmental Studies	Japan
LA	Rachel Warren	University of East Anglia	UK
RE	Mike Brklacich	Carleton University	Canada
RE	Sergey Semenov	Institute of Global Climate and Ecology	Russian Federation
Ch. 20 — Climate-resilient pathways: adaptation, mitigation, and sustainable development			
CLA	Fatima Denton	International Development Research Centre	Gambia
CLA	Thomas Wilbanks	Oak Ridge National Laboratory	USA
LA	Achala Chandani Abeysekara	The Open University of Sri Lanka	Sri Lanka
LA	Ian Burton	University of Toronto	Canada
LA	Qingzhu Gao	Chinese Institute of Environment and Sustainable Development in Agriculture	China
LA	Maria Carmen Lemos	University of Michigan	USA
LA	Toshihiko Masui	National Institute for Environmental Studies	Japan
LA	Karen O'Brien	University of Oslo	Norway
LA	Koko Warner	United Nations University - Institute for Environment and Human Security	Germany
RE	Suruchi Bhadwal	The Energy and Resources Institute	India
RE	Walter Leal	Hamburg University of Applied Sciences	Germany
RE	Jean-Pascal van Ypersele	Université Catholique de Louvain	Belgium

WGII AR5 Chapter Teams

PART B: REGIONAL ASPECTS

Role	Name	Institution	Country/Organization
Ch. 21 — Regional context			
CLA	Bruce Charles Hewitson	University of Cape Town	South Africa
CLA	Anthony Janetos	Pacific Northwest National Laboratory	USA
LA	Timothy Carter	Finnish Environment Institute	Finland
LA	Filippo Giorgi	Abdus Salam International Centre for Theoretical Physics	Italy
LA	Richard Jones	Met Office Hadley Centre	UK
LA	Won-Tae Kwon	National Institute of Meteorological Research	Republic of Korea
LA	Linda Mearns	National Center for Atmospheric Research	USA
LA	Lisa Schipper	Stockholm Environment Institute	Sweden
LA	Maarten van Aalst	Red Cross / Red Crescent Climate Centre	Netherlands
RE	Tom Downing	Global Climate Adaptation Partnership	USA
RE	Phil Duffy	Climate Central, Inc.	USA

Regional Chapters

Role	Name	Institution	Country/Organization
Ch. 22 — Africa			
CLA	Isabelle Niang	University Cheikh Anta Diop of Dakar	Senegal
CLA	Oliver Ruppel	University of Stellenbosch	Namibia??
LA	Mohamed Abdrabo	Institute of Graduate Studies and Research, University of Alexandria	Egypt
LA	Ama Essel	Korle-Bu Teaching Hospital / University of Ghana Medical School	Ghana
LA	Papa Demba Fall	University Cheikh Anta Diop of Dakar, Institut Fondamental d'Afrique Noire	Senegal
LA	Fatou Ndeye Gaye	Ministry of Forestry and Environment	Gambia
LA	Nsalambi Nkongolo	Lincoln University of Missouri	Democratic Republic of the Congo
LA	Marie-Louise Rakotondrafara	Madagascar National Weather Service	Madagascar
RE	Pauline Dube	University of Botswana	Botswana
RE	Neil Leary	Dickinson College	USA

WGII AR5 Chapter Teams

Role	Name	Institution	Country/Organization
Ch. 23 — Europe			
CLA	Sari Kovats	London School of Hygiene and Tropical Medicine	UK
CLA	Riccardo Valentini	University of Tuscia and Euro-Mediterranean Center for Climate Change	Italy
LA	Laurens Bouwer	Vrije Universiteit Amsterdam	Netherlands
LA	Elena Georgopoulou	National Observatory of Athens	Greece
LA	Daniela Jacob	Climate Service Center, Hamburg	Germany
LA	Eric Martin	Meteo-France	France
LA	Mark Rounsevell	University of Edinburgh	UK
LA	Jean-Francois Soussana	French National Institute for Agriculture, Food and Environment Research	France
RE	Lucka Kajfez Bogataj	University of Ljubljana	Slovenia
RE	Roman Corobov	Independent Researcher	Republic of Moldova
RE	Joan O. Grimalt	Spanish Council for Scientific Research	Spain
Ch. 24 — Asia			
CLA	Yasuaki Hijioka	National Institute for Environmental Studies	Japan
CLA	Erda Lin	Agro-environment and Sustainable Development Institute	China
CLA	Joy Jacqueline Pereira	Universiti Kebangsaan Malaysia	Malaysia
LA	Richard Corlett	National University of Singapore	Singapore
LA	Xuefeng Cui	Beijing Normal University	China
LA	Gregory Insarov	Institute of Geography of the Russian Academy of Sciences	Russian Federation
LA	Rodel Lasco	World Agroforestry Center	Philippines
LA	Elisabet Lindgren	Karolinska Institutet	Sweden
LA	Akhilesh Surjan	United Nations University	India
RE	Rosa Perez	Manila Observatory	Philippines
RE	Kazuhiko Takeuchi	United Nations University	Japan
Ch. 25 — Australasia			
CLA	Roger Kitching	Griffith University	Australia
CLA	Andy Reisinger	Victoria University of Wellington	New Zealand
LA	Francis Chiew	Commonwealth Scientific and Industrial Research Organization - Land and Water	Australia
LA	Lesley Hughes	Macquarie University	Australia
LA	Paul Newton	AgResearch	New Zealand
LA	Sandra Schuster	Munich Reinsurance Company	Australia
LA	Andrew Tait	National Institute of Water and Atmosphere	New Zealand
LA	Penny Whetton	Commonwealth Scientific and Industrial Research Organization - Marine and Atmospheric Research	Australia
RE	Blair Fitzharris	University of Otago	New Zealand
RE	David Karoly	University of Melbourne	Australia

WGII AR5 Chapter Teams

Role	Name	Institution	Country/Organization
Ch. 26 — North America			
CLA	Patricia Romero Lankao	National Center for Atmospheric Research	Mexico
CLA	Joel Smith	Stratus Consulting Inc.	USA
LA	Debra Davidson	University of Alberta	Canada
LA	Noah Diffenbaugh	Stanford University	USA
LA	Preston Hardison	Tulalip Tribes of Washington	USA
LA	Patrick Kinney	Columbia University Mailman School of Public Health	USA
LA	Paul Kirshen	Battelle Memorial Institute	USA
LA	Paul Kovacs	Institute for Catastrophic Loss Reduction	Canada
RE	Ana Rosa Moreno	School of Medicine, Universidad Nacional Autónoma de México	Mexico
RE	Linda Mortsch	Environment Canada	Canada
Ch. 27 — Central and South America			
CLA	Graciela Odilia Magrin	Instituto Nacional de Tecnología Agropecuaria	Argentina
CLA	Carlos Nobre	National Institute for Space Research	Brazil
LA	Jean-Phillipe Boulanger	Institut de Recherche pour le Développement	France
LA	Marcos Buckeridge	University of Sao Paulo	Brazil
LA	Edwin Castellanos	Universidad del Valle de Guatemala	Guatemala
LA	Germán Poveda	Universidad Nacional de Colombia	Colombia
LA	Fabio Scarano	Conservation International	Brazil
LA	Sebastian Vicuna	Pontificia Universidad Católica de Chile	Chile
RE	Leonidas Osvaldo Girardin	Fundación Bariloche	Argentina
RE	Jean Ometto	National Institute for Space Research	Brazil
Ch. 28 — Polar Regions			
CLA	Oleg Anisimov	State Hydrological Institute	Russian Federation
CLA	Joan Nymand Larsen	Stefansson Arctic Institute	Iceland
LA	Anne Hollowed	National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Alaska Fisheries Science Center	USA
LA	Nancy Maynard	NASA Goddard Space Flight Center	USA
LA	Pål Prestrud	Centre for Climate Research in Oslo	Norway
LA	Terry Prowse	Environment Canada and University of Victoria	Canada
LA	John Stone	Carleton University	Canada
RE	Maria Ananicheva	Institute of Geography	Russian Federation
RE	Terry Chapin	University of Alaska Fairbanks	USA

WGII AR5 Chapter Teams

Role	Name	Institution	Country/Organization
Ch. 29 — Small Islands			
CLA	Roger McLean	University of New South Wales	Australia
CLA	Leonard Nurse	University of the West Indies	Barbados
LA	John Agard	University of the West Indies	Trinidad and Tobago
LA	Lino Pascal Briguglio	Islands and Small States Institute, University of Malta	Malta
LA	Rolph Payet	University of Seychelles	Seychelles
LA	Netatua Pelesikoti	Secretariat of the Pacific Regional Environment Programme	Samoa
LA	Emma Tompkins	Sustainability Research Institute	UK
LA	Arthur Webb	Pacific Islands Applied Geoscience Commission	Fiji
RE	Thomas Spencer	University of Cambridge	UK
RE	Kazuya Yasuhara	Ibaraki University	Japan
Ch. 30 — Open Oceans			
CLA	Rongshuo Cai	Third Institute of Oceanography, Chinese State Oceanic Administration	China
CLA	Ove Hoegh-Guldberg	University of Queensland	Australia
LA	Peter G. Brewer	Monterey Bay Aquarium Research Institute	USA
LA	Victoria J. Fabry	California State University, San Marcos	USA
LA	Karim Hilmi	Institut National de Recherche Halieutique	Morocco
LA	Sukgeun Jung	Jeju National University	Republic of Korea
LA	Svein Sundby	Institute of Marine Research	Norway
RE	Omar Ly	Environment and Fisheries Department / INGESAHEL-sa	Senegal
RE	Carol Turley	Plymouth Marine Laboratory	EC

Working Group III Contribution to the IPCC Fifth Assessment Report
Climate Change 2014: Mitigation of Climate Change

Coordinating Lead Authors, Lead Authors and Review Editors (as of 22 December 2010)

* additional author to be nominated following outcome of IPCC Expert Meeting on Human Settlements and Infrastructure

** additional author to be nominated at later stage

1. Introduction

Coordinating Lead Authors

David VICTOR
Dadi ZHOU

Country of residence

UNITED STATES OF AMERICA
CHINA

Lead Authors

Essam Hassan Mohamed AHMED
Pradeep Kumar DADHICH
Jos OLIVIER
Hans-Holger ROGNER
Kamel SHEIKHO
Mitsutsune YAMAGUCHI

EGYPT
INDIA
NETHERLANDS
AUSTRIA
SAUDI ARABIA
JAPAN

Review Editors

Arnulf GRUEBLER
Alick MUVUNDIKA

AUSTRIA
ZAMBIA

2. Integrated Risk and Uncertainty Assessment of Climate Change Response Policies

Coordinating Lead Authors

Shreekant GUPTA
Howard KUNREUTHER

Country of residence

INDIA
UNITED STATES OF AMERICA

Lead Authors

Valentina BOSETTI
Roger COOKE
Ekundayo SHITTU
Minh HA-DUONG
Hermann HELD
Joanne LINNERTHOOTH-BAYER
Juan F. LLANES-REGUEIRO
Edgar ORTIZ
Elke WEBER

ITALY
UNITED STATES OF AMERICA
UNITED STATES OF AMERICA
FRANCE
GERMANY
AUSTRIA
CUBA
MEXICO
UNITED STATES OF AMERICA

WGIII AR5 Chapter Teams

Review Editors

Ismail ELGIZOULI
Martin L. WEITZMAN

Country of residence

SUDAN
UNITED STATES OF AMERICA

3. Social, Economic and Ethical Concepts and Methods

Coordinating Lead Authors

Martin KHOR
Charles KOLSTAD

Country of residence

SWITZERLAND
UNITED STATES OF AMERICA

Lead Authors

Philippe AGHION
John BROOME

UNITED STATES OF AMERICA
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Annegrete BRUVOLL
Martha Micheline CARIÑO OLVERA
Mamadou DIAWARA
Christian GOLLIER
Eduardo GUDYNAS
William Michael HANEMANN
Frank JOTZO
Mizan R KHAN
Gilbert E. METCALF
Lukas MEYER
Luis MUNDACA

NORWAY
MEXICO
GERMANY
FRANCE
URUGUAY
UNITED STATES OF AMERICA
AUSTRALIA
BANGLADESH
UNITED STATES OF AMERICA
AUSTRIA
SWEDEN

Review Editors

Marlene ATTZS
Daniel BOUILLE
Snorre KVERNDOKK

TRINIDAD AND TOBAGO
ARGENTINA
NORWAY

4. Sustainable Development and Equity

Coordinating Lead Authors

Marc FLEURBAEY
Adil NAJAM

Country of residence

FRANCE
UNITED STATES OF AMERICA

Lead Authors

Simon BOLWIG
Ying CHEN
Esteve CORBERA

DENMARK
CHINA
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Mauricio DE MARÍA CAMPOS
Sivan KARTHA
Franck LECOCQ
Chee Yoke LING
Wolfgang LUTZ
Maria Silvia MUYLEAERT DE ARAUJO
Richard B. NORGAARD
Kevin Chika URAMA

MEXICO
UNITED STATES OF AMERICA
FRANCE
MALAYSIA
AUSTRIA
BRAZIL
UNITED STATES OF AMERICA
KENYA

Review Editors

Luiz PINGUELLI ROSA
Matthias RUTH
Jayant SATHAYE

BRAZIL
UNITED STATES OF AMERICA
UNITED STATES OF AMERICA

5. Drivers, Trends and Mitigation

Coordinating Lead Authors

Reyer GERLAGH
Emilio LA ROVERE

Country of residence

NETHERLANDS
BRAZIL

Lead Authors

John BARRETT

UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Gabriel BLANCO

ARGENTINA

Heleen DE CONINCK

NETHERLANDS

Cristobal Felix DIAZ MOREJON

CUBA

David KEITH

CANADA

Ritu MATHUR

INDIA

Nebojsa NAKICENOVIC

AUSTRIA

Alfred OFOSU AHENKORAH

GHANA

Jiahua PAN

CHINA

Himanshu PATHAK

INDIA

James RICE

CANADA

Richard RICHELIS

UNITED STATES OF AMERICA

David STERN

AUSTRALIA

Ferenc L. TOTH

HUNGARY

Peter ZHOU

BOTSWANA

Review Editors

Marcos GOMES

BRAZIL

Aviel VERBRUGGEN

BELGIUM

6. Assessing Transformation Pathways

Coordinating Lead Authors

Leon CLARKE
Kejun JIANG

Country of residence

UNITED STATES OF AMERICA
CHINA

Lead Authors

Ibrahim ABDEL GELIL

BAHRAIN

Keigo AKIMOTO

JAPAN

Geoffrey BLANFORD

UNITED STATES OF AMERICA

Karen FISHER-VANDEN

UNITED STATES OF AMERICA

Jean-Charles HOURCADE

FRANCE

Volker KREY

AUSTRIA

Elmar KRIEGLER

GERMANY

Andreas LÖSCHEL

GERMANY

Sergey PALTSEV

UNITED STATES OF AMERICA

Steven ROSE

UNITED STATES OF AMERICA

Priyadarshi R. SHUKLA

INDIA

Massimo TAVONI

ITALY

Bob VAN DER ZWAAN

NETHERLANDS

Detlef VAN VUUREN

NETHERLANDS

Review Editors

Wenyong CHEN

CHINA

John WEYANT

UNITED STATES OF AMERICA

7. Energy Systems

Coordinating Lead Authors

Anthony ADEGBULUGBE
Igor Alexeyevich BASHMAKOV
Thomas BRUCKNER

Country of residence

NIGERIA
RUSSIAN FEDERATION
GERMANY

Lead Authors

Angel DE LA VEGA
James A. EDMONDS
Andre FAAIJ
Bundit FUNGTAMMASAN
Amit GARG
Edgar HERTWICH
David INFIELD

MEXICO
UNITED STATES OF AMERICA
NETHERLANDS
THAILAND
INDIA
NORWAY
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Mikiko KAINUMA
Smail KHENNAS
Suduk KIM
Hassan Bashir NIMIR
Keywan RIAHI
Thorsteinn Ingi SIGFUSSON
Neil STRACHAN

JAPAN
SENEGAL
REPUBLIC OF KOREA
SUDAN
AUSTRIA
ICELAND
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND
UNITED STATES OF AMERICA
CHINA

Ryan WISER
Xiliang ZHANG

Review Editors

Kirit S PARIKH
Jim SKEA

INDIA
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

8. Transport

Coordinating Lead Authors

Roberto SCHAEFFER
Ralph SIMS

Country of residence

BRAZIL
NEW ZEALAND

Lead Authors

Felix CREUTZIG
Xochitl CRUZ-NÚÑEZ
Marcio D'AGOSTO
Delia DIMITRIU
Maria Josefina FIGUEROA
Lew FULTON
Kebin HE
Shigeki KOBAYASHI
Peter NEWMAN
Minggao OUYANG
Steven PLOTKIN
Robert SAUSEN
James Jay SCHAUER

GERMANY
MEXICO
BRAZIL
ROMANIA
DENMARK
FRANCE
CHINA
JAPAN
AUSTRALIA
CHINA
UNITED STATES OF AMERICA
GERMANY
UNITED STATES OF AMERICA

Review Editors

Suzana KAHN RIBEIRO
Lee SCHIPPER

BRAZIL
UNITED STATES OF AMERICA

9. Buildings

Coordinating Lead Authors

Oswaldo LUCON

Diana ÜRGE-VORSATZ

Country of residence

BRAZIL

HUNGARY

Lead Authors

Hashem AKBARI

Paolo BERTOLDI

Luisa F. CABEZA

Nicholas EYRE

CANADA

ITALY

SPAIN

UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

L.D. Danny HARVEY

Yi JIANG

Mark LEVINE

Enoch LIPHOTO

Sevastianos MIRASGEDIS

Shuzo MURAKAMI

Jyoti PARIKH

Christopher PYKE

Maria Virginia VILARIÑO

Azni ZAIN AHMED

CANADA

CHINA

UNITED STATES OF AMERICA

SOUTH AFRICA

GREECE

JAPAN

INDIA

UNITED STATES OF AMERICA

ARGENTINA

MALAYSIA

Review Editors

Marilyn BROWN

Tamás PÁLVÖLGYI

UNITED STATES OF AMERICA

HUNGARY

10. Industry

Coordinating Lead Authors

Manfred FISCHEDICK

Joyashree ROY

Country of residence

GERMANY

INDIA

Lead Authors

Amr ABDEL-AZIZ

Julian ALLWOOD

EGYPT

UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Jean-Paul CERON

Yong GENG

Darío GÓMEZ

Haroon KHESHGI

Alessandro LANZA

Daniel PERCZYK

Lynn PRICE

Claudia SHEINBAUM

Kanako TANAKA

Francis YAMBA

FRANCE

CHINA

ARGENTINA

UNITED STATES OF AMERICA

ITALY

ARGENTINA

UNITED STATES OF AMERICA

MEXICO

JAPAN

ZAMBIA

Review Editors

Monique HOOGWIJK

Valentin NENOV

NETHERLANDS

BULGARIA

11. Agriculture, Forestry and Other Land Uses (AFOLU)

Coordinating Lead Authors

Mercedes BUSTAMANTE
Pete SMITH

Country of residence

BRAZIL
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Lead Authors

Helal AHAMMAD
Harry CLARK
Hongmin DONG
Elnour Abdalla ELSIDDIG
Helmut HABERL
Richard HARPER
Mostafa JAFARI
Omar MASERA
Cheikh MBOW
Nijavalli H. RAVINDRANATH
Charles W. RICE
Carmenza ROBLEDO ABAD
Anna ROMANOVSKAYA
Frank SPERLING
Robert ZOUGMORE

AUSTRALIA
NEW ZEALAND
CHINA
SUDAN
AUSTRIA
AUSTRALIA
IRAN
MEXICO
SENEGAL
INDIA
UNITED STATES OF AMERICA
SWITZERLAND
RUSSIAN FEDERATION
NORWAY
TUNISIA

Review Editors

Thelma KRUG
Gert-Jan NABUURS

BRAZIL
FINLAND

12. Human Settlements, Infrastructure and Spatial Planning

Coordinating Lead Authors

Shobhakar DHAKAL
Karen SETO

Country of residence

JAPAN
UNITED STATES OF AMERICA

Lead Authors

*
*
*

Anthony BIGIO
Gian Carlo DELGADO
Luxin HUANG
Atsushi INABA
Arun KANSAL
Shuaib LWASA
James MCMAHON
Daniel MUELLER
Naison MUTIZWA-MANGIZA
Harini NAGENDRA
Cecilia TACOLI

UNITED STATES OF AMERICA
MEXICO
CHINA
JAPAN
INDIA
UGANDA
UNITED STATES OF AMERICA
NORWAY
KENYA
INDIA
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Review Editors

Robert CERVERO
Julio TORRES MARTINEZ

UNITED STATES OF AMERICA
CUBA

13. International Cooperation: Agreements and Instruments

Coordinating Lead Authors

Robert STAVINS
Ji ZOU

Country of residence

UNITED STATES OF AMERICA
CHINA

Lead Authors

Thomas Brewer
Michel DEN ELZEN
Michael FINUS

UNITED STATES OF AMERICA
NETHERLANDS
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Joyeeta GUPTA
Niklas HÖHNE
Myung-Kyoon LEE
Jorge LEIVA
Matthew PATERSON
Kilaparti RAMAKRISHNA
Gang WEN
Jonathan WIENER
Harald WINKLER

NETHERLANDS
GERMANY
REPUBLIC OF KOREA
CHILE
CANADA
UNITED STATES OF AMERICA
CHINA
UNITED STATES OF AMERICA
SOUTH AFRICA

Review Editors

Antonina IVANOVA BONCHEVA
Jennifer MORGAN

MEXICO
UNITED STATES OF AMERICA

14. Regional Development and Cooperation

Coordinating Lead Authors

Shardul AGRAWALA
Stephan KLASSEN

Country of residence

FRANCE
GERMANY

Lead Authors

Roberto ACOSTA MORENO
Alba Eritrea GÁMEZ VÁZQUEZ
Dabo GUAN

CUBA
MEXICO
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Edgar E. GUTIERREZ-ESPELETA
Leiwen JIANG
Yong Gun KIM
Joanna LEWIS
Mohammed MESSOULI
Axel MICHAELOWA
Michael RAUSCHER
Noim UDDIN
Anthony VENABLES

COSTA RICA
UNITED STATES OF AMERICA
REPUBLIC OF KOREA
UNITED STATES OF AMERICA
MOROCCO
SWITZERLAND
GERMANY
AUSTRALIA
UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND

Review Editors

Kirsten HALSNAES
Fedor VESELOV

DENMARK
RUSSIAN FEDERATION

15. National and Sub-National Policies and Institutions

Coordinating Lead Authors

Eswaran SOMANATHAN
Taishi SUGIYAMA

Country of residence

INDIA
JAPAN

Lead Authors

**

	Country of residence
Manuel ANGELES	MEXICO
Donald CHIMANIKIRE	ZIMBABWE
Navroz DUBASH	INDIA
Joseph Kow ESSANDOH-YEDDU	GHANA
Solomone FIFITA	SAMOA
Adam JAFFE	UNITED STATES OF AMERICA
Nathaniel KEOHANE	UNITED STATES OF AMERICA
Xavier LABANDEIRA	SPAIN
Catherine MITCHELL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
Thomas STERNER	SWEDEN
Fei TENG	CHINA
Tomasz ZYLICZ	POLAND

Review Editors

Martin JÄNICKE	GERMANY
Ronaldo SEROA DA MOTTA	BRAZIL
Nadir Mohamed Awad SULIMAN	SUDAN

16. Cross-cutting Investment and Finance Issues

Coordinating Lead Authors

	Country of residence
Sujata GUPTA	INDIA
Jochen HARNISCH	GERMANY

Lead Authors

Dipal Chandra BARUA	BANGLADESH
Giulio BOCCALETTI	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
Lloyd CHINGAMBO	ZAMBIA
Paul FRANKEL	UNITED STATES OF AMERICA
Raúl Jorge GARRIDO VÁZQUEZ	CUBA
Luis GÓMEZ-ECHEVERRI	AUSTRIA
Yongfu HUANG	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
Raymond KOPP	UNITED STATES OF AMERICA
Benoit LEFEVRE	FRANCE
Haroldo de Oliveira MACHADO-FILHO	BRAZIL
Emanuele MASSETTI	ITALY

Review Editors

Carlo CARRARO	ITALY
Mohammed Said KARROUK	MOROCCO
Ignacio PEREZ-ARRIAGA	SPAIN

Technical Summary

Review Editors

	Country of residence
Tomás HERNÁNDEZ-TEJEDA	MEXICO
Roberta QUADRELLI	ITALY

AR5 Writing Team Statistics and Regional Coverage (as of April 15, 2011)	
Coordinating Lead Authors, Lead Authors and Review Editors	All WG Selections
Total	836*
Countries Represented	Up to 85*
New to the Working Group in the role of CLA, LA or RE	529 (63%)
Female	179 (21%)
DC & EIT	301 (36%)
WMO Regional Distribution	
Africa	69 (8%)
Asia	135 (16%)
South America	52 (6%)
North America, Central America and Caribbean	233 (28%)
South West Pacific	58 (7%)
Europe	287 (34%)
<p>Note: These statistics are compiled from IPCC-XXXII/Doc.9, IPCC-XXXII/Doc.11, and IPCC-XXXII/Doc.12 (Progress Reports of WG I, WGII and WG III). In contrast to the information contained in IPCC-XXXII/Doc.11 (the Progress Report of the Working Group II), statistics for the WG II writing teams were recently re-generated based on current physical address of home institution, for consistency-sake.</p>	

Statistics available by Working Group and resulting global statistics:

	WG I	WG II	WG III	Total
Total (writing team members)	258	309	267	836*
Countries Represented	44	68	63	up to 85*
New in the role of CLA, LA or RE	168	168	193	529
New (%)	65%	54%	72%	63%
Female	48	84	47	179
Female (%)	19%	27%	18%	21%
DC/EIT	63	115	123	301
DC/EIT (%)	24%	37%	46%	36%
WMO Regional Distribution				
Africa	12	30	27	69
Africa (%)	5%	10%	10%	8%
Asia	39	44	52	135
Asia (%)	15%	14%	19%	16%
South America	10	18	24	52
South America (%)	4%	6%	9%	6%
North America, Central America and Caribbean	80	85	68	233
North America, Central America and Caribbean (%)	31%	28%	25%	28%
South-west Pacific	19	29	10	58
South-west Pacific (%)	7%	9%	4%	7%
Europe	98	103	86	287
Europe (%)	38%	33%	32%	34%

Note: The Working Group II Technical Support Unit (TSU) has provided an export of its database to provide consistent treatment of author statistics across Working Groups. Its web site provides this information based on Citizenship of writing team members (see <<http://ipcc-wg2.gov/AR5/ar5.html>>) as this is the basis for many countries to provide support (e.g., travel). The statistics presented herein (based on Country of Residence) are thus slightly skewed with that on Working Group II's public web pages.

* corrected on 23 August 2011