

COMMISSION ON CLIMATOLOGY
2012-2016
Report

1.MEMBERSHIP

A. CoC steering committee members:

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B. The number of commission members in total and *by country* as of 31 December 2015

TOTAL: 11 members in the Steering Committee.

One in each of the following countries: Poland, Sweden, Israel, Tunisia, Japan, Brazil, Portugal, USA, Australia, Ukraine, Canada (since August 2014: Israel, Tunisia, Turkey, Japan, Brazil, Portugal, USA, Australia, Ukraine/Russia, Canada and Poland – exceptionally 2 people for administrative purposes – CoC Secretariat)

HONORARY MEMBERS:

S. Gregory (U. K.), M. Yoshino (Japan), M. Domroes (Germany) and L. Nkemdirim (Canada)

SENIOR MEMBERS:

A. Douguédroit (France), R. Brazdil (Czech Republic), T. Mikami (Japan), A. Bitan (Israel – since 2014).

Newsletters have been delivered to hundreds of climatologists by a mailing list (CLIMLIST) however it was decided to complete the list of corresponding members (everyone interested in cooperating in the frame of Commission). The data has still being collected and prepared.

2. MEETINGS

A. The meetings your commission organized during 2012-2016 with summary information on their locations, dates, and numbers of participants.

Commission on Climatology has been operating for international research cooperation and studies on the field of climatology. It promotes individual and group research work, encourage the exchange of relevant documents and information. The main stream of activities in 2012-2016 period was, on the point, focused on scientific information exchange. Internet has become the principal medium, due to which the cooperating members were able to share the results of leading-edge research.

Organized meetings:

IGU International Congress, Cologne, Germany, 26 - 30 August 2012

The CoC organized 5 Sessions (28-29 August) with 15 timeslots covering the topics:

- Climate change and variability in different spatial and temporal scales
- Weather and Climate Extremes
- Applied Climatology in 21 Century
- Potential Impacts of Climate Variability and Change on Agriculture
- Urban climates

During the sessions 55 presentations were given by scientists from 21 countries, representing Europe, Asia, North and South America, Australia and Oceania. The total number of sessions participants is difficult to estimate.

There was also a joint session CoC-IGU MRP: Climate change in the areas with Mediterranean climate: characteristics, mitigation and adaptation organized/announced but due to the small number of participants interested as well as some personal problems it was finally cancelled.

IGU Regional Conference – Kyoto, 4-9 August 2013

In IGU Kyoto Regional Conference, held at Kyoto International Conference Center, Japan from August 4 to 9, 2013. Three commission sessions were organized with twelve slots:

- ✓ Climatic change and variability in different spatial and temporal scales (13 presentations)
- ✓ Urban climate (12 presentations)
- ✓ Past, present and future changes of Asian and Australian monsoon and their impact on nature and society (11 presentations)

In addition, two joint sessions with the Commission on Hazard and Risk, and the Commission on Water Sustainability were organized:

- ✓ Water resources and climate change (Joint session with the Commission on Water Sustainability)
- ✓ Climate-related risk and hazard in the 21st century (Joint session with the Commission on Hazard and Risk)

Furthermore, two general sessions were under the auspices of CoC: Climatology (7 presentations) and Water resources (4 presentations). In addition, 11 posters were presented in 113 Climatology, one poster in 114 Meteorology and in 115 Hydrology, respectively.

Unfortunately except for Jun Matsumoto from Tokyo Metropolitan University, JAMSTEC/RIGC, Japan no other commission members attended from abroad. It should also be noted that Prof. Masatoshi Yoshino, the founder of our commission and the former vice president of IGU, and Prof. Takehiko Mikami, the former commission member from Japan, gave their presentations in CoC sessions.

IGU Regional Conference, Krakow, Poland, 18-22 August 2014

The CoC organized 9 Sessions with 16 timeslots covering the topics:

- Climate change and variability in different spatial and temporal scales
- Weather and climate extremes
- Historical climatology
- Polar and mountain climates

- Urban climates
- Atmospheric circulation in different scales
- GIS and remote sensing in atmospheric sciences
- Climate modeling and scenarios
- Climate change impacts and vulnerability

Due to the limited number of presentation sessions GIS and remote sensing in atmospheric sciences and climate modeling and scenarios were finally merged into one session.

During the sessions 72 presentations were given by scientists from different countries, representing Europe, Asia, North and South America, Australia and Oceania. Also 62 posters were presented. The total number of sessions participants is difficult to estimate.

XI – SBCG / Brazilian Climatology Symposium (under the auspices of IGU – Commission on Climatology) Climate change and variability: state of the art and perspectives for interaction-nature society: Curitiba (Brazil) – **14 to 17 October 2014**

Topics:

- Theoretical and methodological advances in the study of climate
- Qualitative and quantitative modeling in climatology
- Risks, vulnerabilities and resilience associated with climate
- Applied Climatology: urban climate, agroclimatology, health, etc.
- Climatology and teaching
- Tropical climatology

Participants included 400 climate scientists, from Brazil and another 12 countries. The CoC-IGU was represented by three SC members of Climatology Commission (Dr. Annick Douguedroit – France – honorary member) and Dr Francisco Mendonça (current Member of CoC-UGI - Chairman of Symposium), Dr. Latifa Henia (Tunisia - AIC - International Association of Climatologie - President). The event also was attended by Dr Hugo Romero – Chile and Dr Gerard Mills (IAUC - International Association of Urban Climate – ex-President).

The event featured six round tables in which were discussed topics of interest such as climate and weather cities, climate and agriculture, climate and health, climate and education, climate and GIS, and tropical climate. It was also an accomplished political debate and that has highlighted the scale of the climate in contemporary political sphere, especially on the geopolitical implications of global climate change. It was exposed 235 scientific contributions relating to the case studies in Brazil and around the world. In addition to the conferences and lectures it was pointed out 3 short-classes focused on the following topics: Rhythmic analysis in climatology, GIS applied to hydro-meteorological studies, and climatic risks and disasters.

IGU Regional Conference – Moscow, Russia, 7-21 August, 2015

2015 IGU Regional Conference was held in Moscow, 7-21 August, 2015. There was one large Climatological Session entitled “Climate Variability and Predictability” organized by Commission on Climatology. Our Steering Committee member Elena Voskresenskaya was the leader of that session. During that session there were given 46 oral presentations and 29 poster presentations. Participants represented different countries with the predominance of Russian Federation as well as China.

B. A brief summary of the themes addressed, number of sessions and papers presented at these meetings. Please highlight any new ideas and insights identified and their theoretical and practical implications if appropriate.

Steering Committee meeting – Cologne, Germany, 29.08.2012

The general themes of the meeting were:

- (1) the Commission current organizational details (membership, etc.)
- (2) activities planned for 2013-2014: a) mid-year activities, b) conferences, c) publications

(1) The Commission does not have any particular member-list. It has been working with the steering committee as the only Commission <Body> however lots of climatologists and environmental as well as urban and human studies scientists are cooperating. The list of corresponding members (everyone interested in cooperating in the frame of Commission) has been completing via CLIMLIST mailing group. It was also decided that Commission needs representatives from Africa (except Latifa Henia) and also precisely from China. Africa being a developing region is an important research scope (climatic change issues due to inhabitation, agriculture – famine, water resources, industry, etc.), Chinese brainpower seems to be more and more influential and also well financed (numbers of research groups, publications, editorial boards members, scientific journals, etc.)

(2) a) It was noted that due to many obligations mid-year CoC activities leave much to be desired; however, climatology is the basis also for other commissions so there is a point in collaboration, CoC could to contribute to the work of other commissions (→ joint sessions at Kyoto Regional Conference), b) Kyoto Regional Conference 2013 - prof. Matsumoto (the CoC SC member) responsible for climatology sessions, Kraków Regional Conference 2014 – prof. Ustrnul (the chair of CoC) responsible for climatology sessions c) after Cologne Congress there was planned to publish a book of climate change and variability in different spatial and temporal scale but it is needed to look for other publication possibilities.

Steering Committee meeting – Krakow, Poland, 19.08.2014

The general themes of the meeting were:

- (1) the Commission current organizational details (membership, etc.)
- (2) activities planned for 2014-2015: a) mid-year activities, b) conferences, c) publications

(1) The Commission still does not have any particular member-list. It has been working with the steering committee as the only Commission <Body> but lots of climatologists and environmental as well as urban and human studies scientists are cooperating what can be seen in the CoC sessions programme on Regional Conferences and IGU Congress. As 2 of present SC full members reached the 12 years term of office new people were proposed and accepted: prof. Hadas Saaroni, Israel (replacing Arie Bitan), prof. Barbaros Gönençgil, Turkey (replacing Kristina Blennow). Dr Agnieszka Wypych, Poland was accepted to join the Steering Committee from administrative purposes (on the position of the Commission Secretary). The updated list of CoC SC Members is enclosed.

(2) a) It was noted that due to many obligations mid-year CoC activities leave much to be desired; however, climatology is the basis also for other commissions so there is a point in collaboration, CoC could contribute to the work of other commissions, b) Moscow Regional Conference 2015 – Elena Voskresenskaya (the CoC SC member) was asked to find a person responsible for climatology sessions, c) after Cologne Congress there was planned to publish a book of climate change and variability in different spatial and temporal scales but it hasn't been so the publication is still intended. The topic will focus more on global and regional climate extremes. Also special issues of IDŐJÁRÁS (Hungarian journal from ISI list).

C. The meetings or other events you plan to hold in 2016 or later years, including locations, dates, and themes if known. Highlight in particular your plans for participation in the Beijing International Geographical Congress.

33rd International Geographical Congress in Beijing, China will be the special event where climatological issues could be presented and discussed. Three main sessions under Commission on Climatology umbrella are being planned. They cover the main topics of interests in the world contemporary knowledge. These are:

- ✓ Climate change and variability in different scales
- ✓ Weather and climate extremes
- ✓ Urban climates and bioclimatic aspects

3. NETWORKING AND COMMUNICATION

A. Ways your Commission/Task Force has collaborated with other IGU Commissions and Task Forces in the period 2012-2016.

Two joint sessions with the Commission on Hazard and Risk, and the Commission on Water Sustainability were organized during IGU Regional Conference – Kyoto, 4-9 August 2013

- ✓ On August 6, CS40-1 Water resources and climate change (Joint session with the Commission on Water Sustainability), one slot with two presentations chaired by Claudio Cassardo of Univ. of Torino.
- ✓ On August 7, CS18 16-17 Climate-related risk and hazard in the 21st century (Joint session with the Commission on Hazard and Risk), two slots with 6 presentations, chaired by Jun Matsumoto of Tokyo Metropolitan University.

B. Collaboration with other international, intergovernmental, and inter- and multi-disciplinary if relevant.

C. Cooperative efforts with ISSC (International Social Science Council) and with ICSU (the International Council for Science) programs.

4. PUBLICATIONS

A. Newsletters, special journal issues, and books published or anticipated during the 2012-2016 period.

NEWSLETTER 13 (June 2012)
NEWSLETTER 14 (December 2012)
NEWSLETTER 15 (May 2013)
NEWSLETTER 16 (December 2013)
NEWSLETTER 17 (May 2014)
NEWSLETTER 18 (November 2014)
NEWSLETTER 19 (December 2015)
NEWSLETTER 20 (April 2016)

It was decided that the best way for disseminating information was the electronic one, even in developing countries where, if colleagues do not own private computers, all the universities have a website. Hard copy mailing was stopped. The existing lists as CLIMLIST is used to send around the Newsletters. We can be sure that the CoC Newsletters are provided to a great number of geography climatologists.

C. The URL of the commission's web site.

CoC website: <http://www.klimat.geo.uj.edu.pl/CoC.htm>

5. ARCHIVAL CONTRIBUTIONS

All newsletters are available at the website

6. CONTINUATION

A. Does not concern (no change)

B. Commission was established for international research cooperation and studies on the field of climatology. It promotes individual and group research work, encourage the exchange of relevant documents and information and organize conferences, meetings, field excursions between and during International Geographical Congresses.

Commission perspectives:

1. to promote the study of climatological problems;
2. to initiate and co-ordinate climatological research requiring international co-operation and to promote its scientific discussion and publication;
3. to provide for the participation of climatologists in the work of relevant international organizations;
4. to facilitate the collection and diffusion of meteorological and climatological data and documentation in and between all member countries;
5. to promote International Geographical Congresses, regional conferences and specialized symposia related to the objectives of the Union;
6. to participate in any other appropriate form of international co-operation with the object of advancing the study and application of climatology;
7. to promote international standardization or compatability of methods, nomenclature, and symbols employed in climatology.

To extend international research and knowledge of the present state of climate the special interest will be paid to the following topics:

- climate change and variability
- topoclimatology
- tropical climatology
- physical climatology
- environmental climatology
- urban climatology

C. Jun Matsumoto (Japan) – a new Chair – to be confirmed

D. The main objectives for the next years are:

- Increase number of CoC members and cooperating scientists
- Co-organizing climatological sessions during all important IGU meetings

- Publishing the book/monograph entitled: Climatic extremes – global and regional respect (eds. Ustrnul Z., Tapper N.)