



**GLOBAL CLIMATE
OBSERVATION**
THE ROAD TO THE FUTURE

SHAPING THE NEXT GCOS
IMPLEMENTATION PLAN

2-4 March, 2016
Amsterdam



4 March 2016

The International Council for Science (ICSU)
***strengthening international science for the benefit of
society***

**Supporting activities to interdisciplinary
global programs like GCOS**

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Overview



- Brief introduction to ICSU and Policy Committees
- Communication and outreach
- Science-for-Policy and Policy-for-Science: Sustainable Development & Data

Introduction to ICSU



➤ **Mission**

to strengthen international science for the benefit of society

➤ **Membership**

- 122 National Scientific Bodies
- 31 International Scientific Unions
- 22 Associates

➤ **Interdisciplinary Bodies**

- e.g., **GCOS**, WCRP, SCOR, Future Earth, IRDR, CODATA, WDS

➤ **Policy Committees**

- **CSPR** – Committee on Scientific Planning and Review
- **CFRS** – Committee on the Freedom and Responsibility in the conduct of Science

ICSU supports GCOS



- **Great appreciation of the conference content and agenda**
- **Particular interest for the GCOS relevant attention to some dimensions, e.g.:**
 - User needs from diverse areas
 - Communication of climate science
 - Public private partnership ...
- **ICSU ready to engage with GECOS and offer its continuous support**
 - **Communication and outreach**
 - **Science and Policy**
 - **Big data**
 - **Links with the 2 high level committees**

Communication and Outreach (1)



The International Council for Science (ICSU) convened a special event on the eve of the major climate science conference in Paris in December 2015.

OUR UNDER COMMON CLIMATE FUTURE CHANGE

Home
The Conference
Side Events
Dialogue Sessions
Partnerships
Organizers
Press
Blog
Resources

Our Common Future Under Climate Change
International Scientific Conference
7-10 JULY 2015 Paris, France

The CFCC film about the conference is now available in English and in French
The Organisers are pleased to present Our Common Future Under Climate Change - the film - Our Common Future Under Climate Change - la film (French version) which highlights the main outcomes of this important scientific gathering.

Interactive Programme Outcome Statement Side Events Resources

Follow us

Outcome Statement
Science Offers Robust Foundations for Ambitious Outcomes at COP21 and Beyond
by CFCC15 Scientific Committee, chaired by Chris Field
Chairs of the Organising

Blog
Have a look at the conference [blog!](#) Articles, stories, interviews...
In the Mediterranean sea, the only certainty is change



ICSU-WDS-GCOS-WCRP.... demonstrating the effects of climate change on land, oceans, atmosphere & the ice sheet.

Communication and Outreach (2)



Publication: *The International Council for Science and Climate Change: 60 years of facilitating climate change research and informing policy*

Strengthening international science for the benefit of society

Home > Publications > About ICSU > The International Council for Science and climate change (2015)

Browse by subject
General Publications
Statements
Policy Committees and Governance

Online Community
Join Login
Why join the Online Community?

The International Council for Science and climate change (2015)

— High International Research Collaborations, Global Sustainability research, Polar research, Global environmental change, General Publications, Science for Policy, Climate research, Interdisciplinary Studies, Monitoring and observation

For more than 60 years, the International Council for Science has played a leading role in facilitating international research programmes on climate change, and of informing policymaking by providing scientific evidence. This brochure provides an overview of the history of the Council's involvement.

Since the 1950s, the International Council for Science (ICSU) has played a pioneering role in the development of climate science at the international level, principally by generating mechanisms to orient and complement research undertaken at the national level. In recent decades, climate science has required international collaboration among researchers on an unprecedented scale, coupled with collaboration at the intergovernmental level. ICSU's contribution has been crucial to defining the scientific issues, facilitating consensus on research priorities and convening collaborations which have underpinned the research. In parallel, ICSU has also worked tirelessly to initiate and support mechanisms for ground-breaking climate research to reach policy-makers in some cases resulting in important shifts in policy development.

This document highlights the major contributions of ICSU and its scientific community to the development of climate science, and explains how ICSU's approach to facilitating research collaboration to inform policy development has evolved over time.

[ICSU and Climatechange.jpg](#)

The International Council for Science and climate change (2015)

News

- PEES publishes its first assessment on pollinators & food production
Mar 01, 2016
- PEES meets for fourth plenary, will publish assessments on pollinators, biodiversity scenarios and more
Feb 25, 2016
- ICSU's response to the 2015 External Review
Feb 15, 2016

Send this — Translate —



GCOS

GLOBAL CLIMATE OBSERVING SYSTEM (GCOS)

Established in 1992 as an outcome of the Second World Climate Conference, the Global Climate Observing System (GCOS) is an internationally coordinated network of observing systems designed to meet evolving national and international requirements for climate observations. The goal of GCOS is to provide comprehensive information on the total climate system, involving a multidisciplinary range of physical, chemical, and biological properties and atmospheric, oceanic, hydrologic, cryospheric and terrestrial processes.

GCOS is sponsored by the WMO, ICSU, IOC-UNESCO and UNEP. Many observing systems, such as GCOS, the WMO Global Observing System (GOS) and Global Freshwater Watch (GFWW), and the GCOS/WCRP-sponsored Terrestrial Observation Panel for Climate, contribute to the GCOS network of global observing systems for climate. GCOS is both supported by and supports the international scientific community (e.g. WCRP), and constitutes the climate observing component of the Global Earth Observation System of Systems (GEOSS). GCOS also supports the assessment role of the IPCC and the policy development role of the UNFCCC, specifically in meeting the needs for climate system monitoring and climate change detection.

In the 1990s, to assure the credibility of the climate record, GCOS developed the concept of "essential climate variables" (ECVs), which has since been broadly adopted in science and policy circles. GCOS/ICU are the principal requirements for systematic observations of the climate system. They support work of the co-sponsoring organizations, of the UNFCCC, and of the IPCC. These variables are also essential to the observation and monitoring component of the Global Framework for Climate Services. GCOS also pioneered globally accepted norms in publishing a set of guidelines and provides for climate monitoring.

The Global Ocean Observing System (GOOS)

GLOBAL OCEAN OBSERVING SYSTEM (GOOS)

Sponsored by the IOC of UNESCO, WMO, UNEP and ICSU, the Global Ocean Observing System (GOOS) is a permanent global system for observations, modelling, and analysis of marine and oceanic variables to understand, assess and predict oceanic and atmospheric variability. GOOS scientific activities

<http://www.icsu.org/publications/about-icsu/the-international-council-for-science-and-climate-change-2015/the-international-council-for-science-and-climate-change-2015>

Science-for-Policy: SDGs/GSDR



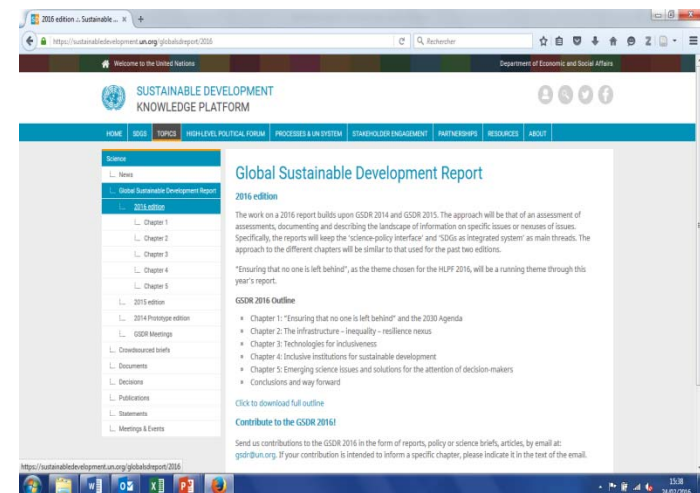
➤ ICSU with ISSC & WFEO co-organizing partner of the Scientific and Technological Community Major Group

➤ ICSU/ISSC Series on SDGs (Report on Targets)

➤ ICSU is strengthening linkages with UN DESA on the Global Sustainable Development Report (GSDR) – briefs/EGM

<https://sustainabledevelopment.un.org/globalsdreport/20>

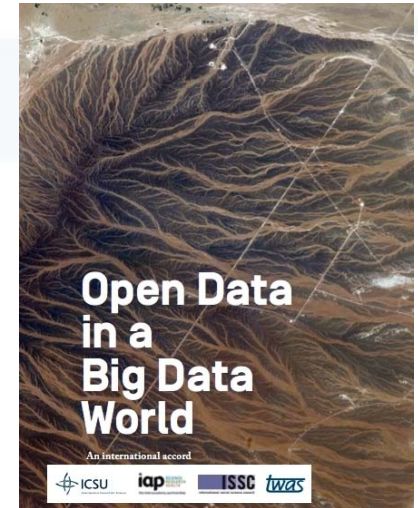
16 CFRS



Policy-for-Science: Open data/Big Data



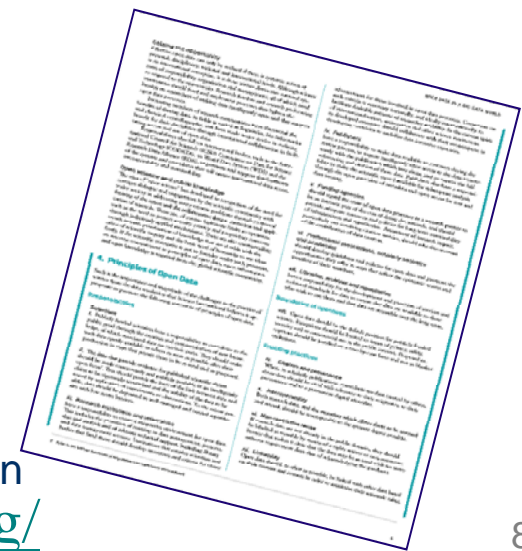
- Science International - 2015 Edition – in South Africa
- The International Accord
“*Open Data in a Big Data World*”
Principles of Open Data
 - Responsibilities
 - Boundaries of openness
 - Enabling practices



□ Campaign:

Over the next 12 months, the campaign will collect endorsements for the accord from other science, education and policy bodies

<http://www.codata.org/>



Committee on Strategic Planning and Review (CSPR)



➤ Leads the Strategic Planning process II
(current SP: 2012-2017)



- The outcomes of GCOS Conference will be reported to the CSPR
- Next meeting (Monday 7-8 March 2016)

Committee on Freedom and Responsibilities in the Conduct of Science (CFRS)



ICSU Statute 5

The Principle of Universality (freedom and responsibility) of Science:

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**Outcomes GECOS Conference
could also be fed into the science-for-policy work of
ICSU on the Sustainable Development Goals**

*Upcoming CFRS participation in the Expert Group
Meeting on “Emerging Issues” for the Global Sustainable
Development Report (GSDR)*

ethnic origin, religion, citizenship, language, political or other
opinion, sex, gender identity, sexual orientation, disability, or age

N.B. Statute 5 approved by the 30th ICSU General Assembly in Rome, September 2011

Special thanks to

Dr Carolin Richter, Director, GCOS Secretariat

... continuous dialogue with ICSU and the Secretariat

**Thank you very much
for your attention**

www.ICSU.org