



International Geographical Union  
Union Géographique Internationale



# Annual Report 2022

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## A. Membership

*IGU-requirements: The structure of your current steering committee, including all names and contact details. The number of Commission/Task Force corresponding members (i.e. your 'membership' - circulation - list, in total and, if at all possible, by country as of 1 December 2022). The counts of members by country are exceedingly helpful in documenting to the International Science Council (ISC) and other international organizations the IGU's extensive reach.*

### a. Structure of Steering Committee (SC)

The structure of the current SC is indicated in Table 1.

Table 1: Members of the Steering Committee of the Commission and their respective functions and contact details

SC-Function	Name	Country, sex	SC since	max. to	Affiliation	Portfolio
Chair	Prof. Dr. habil. <b>Frank Winde</b>	South Africa, male	2012	2024	North-West University, Vanderbijlpark Campus, Geography and Environmental Studies, PO Box 1174, Vanderbijlpark, 1900; Extraordinary Professor Wismut GmbH, 09117 Chemnitz, Jagdschänken-straße 29, Monitoring and Radiation Protection, Tel. +49 151 2571 3237, <a href="mailto:frank.winde@gmail.com">frank.winde@gmail.com</a>	Management and admin, Membership/recruitment, website/public visibility
Vice Chair	Prof. Dr. <b>Daniel Karthe</b>	Germany, male	2016	2024	United Nations University, Institute for Integrated Management of Material Fluxes and of Resources, Dresden, Germany. Email: <a href="mailto:karthe@unu.edu">karthe@unu.edu</a>	co-organize publications over the next 4 years
Vice Chair	Prof. Dr. <b>Liliana Zaharia</b>	Romania, female	2016	2024	University of Bucharest, Faculty of Geography 1 Nicolae Balcescu Blv., 010041, Bucharest, Romania, Tel: + 40-21-305 38 22, Fax: + 40-21-315 30 74, <a href="mailto:zaharialil@yahoo.com">zaharialil@yahoo.com</a> ; <a href="mailto:zaharialili@hotmail.com">zaharialili@hotmail.com</a>	Outreach activities, reporting, archiving, membership recruitment
Member	Prof. Dr. <b>Danijel Orešić</b>	Croatia, male	2020	2028	University of Zagreb, Department of Geography, Marulićev trg 19/II, 10 000 Zagreb, Hrvatska (Croatia), <a href="mailto:doresic@geog.pmf.hr">doresic@geog.pmf.hr</a>	Collaboration + outreach
Member	Dr. <b>Lanhui Zhang</b>	China, female	2016	2024	Lanzhou University, College of Earth Environmental Sciences, Guanyun Building 0912, Tianshuinan Road 222, Lanzhou City, zip code: 730000, Gansu Province, China, Tel/Fax:010 931 8912805 <a href="mailto:lhzhang@lzu.edu.cn">lhzhang@lzu.edu.cn</a>	Proposed: Publications + reporting
Member	Prof. Dr. <b>Heejun Chang</b>	USA, male	2020	2028	Portland State University, Geography, 1721 SW Broadway, PO Box 751, Tel. 503-725-3162, Fax: 503-725-3166; <a href="mailto:changh@pdx.edu">changh@pdx.edu</a>	Book publication, collaborative research, outreach, mentoring.
Member	Dr. <b>Marcela Hebe Gonzalez</b>	Argentina, female	2020	2028	University of Buenos Aires, Department of Atmospheric and Ocean Science – CIMA CONICET. Intendente Güiraldes 2160 2nd floor Building II Ciudad Universitaria C1428EGA CABA ARGENTINA Tel 54-11-52858472 int. 58472, <a href="mailto:marcelahebe@gmail.com">marcelahebe@gmail.com</a> , <a href="mailto:gonzalez@cima.fcen.uba.ar">gonzalez@cima.fcen.uba.ar</a>	Collaboration + proposed publications
Advisory member	Prof. Dr. <b>Natalia Frolova</b>	Russia, female	2020	2024	Lomonossov State University, Moscow, Department of Hydrology, Faculty of Geography, GSP-1, 119991, Leninskie Gory, MSU. Phone: +7 (495) 939-15-33 <a href="mailto:frolova_nl@mail.ru">frolova_nl@mail.ru</a>	non-executive advisor
Advisory member	Prof. Dr. <b>Chansheng He</b>	USA, male	2012	2024	Western Michigan University. Wood Hall, Department of Geography, Western Michigan University, 3234 Wood Hall, Kalamazoo, MI 49008-5424. Phone: (269) 387-3425 Fax: (269) 387-3442 <a href="mailto:chansheng.he@wmich.edu">chansheng.he@wmich.edu</a>	non-executive advisor
Honorary Member	Prof. emer. <b>Tony Jones</b>	UK, male	2002	open ended	Institute of Geography and Earth Sciences, University of Wales, Aberystwyth. <a href="mailto:tonyandjenjones@btinternet.com">tonyandjenjones@btinternet.com</a>	non-executive advisor

For more details, e.g. regarding maximal allowable terms of office according to IGU statutes etc. please go to our website at [Steering Committee – IGU Commission for Water Sustainability \(igu-water.org\)](http://Steering Committee – IGU Commission for Water Sustainability (igu-water.org)).

## b. Member statistics

Based on a decision taken in 2016 that was aimed to curb the uncontrolled grow of mostly inactive members through simply adding email address of one-time attendants to a circulation list, we only accept applicants as new members who submit filled-in member templates outlining their areas of interests/ expertise and research profile in the field of water. This information is displayed on our website to facilitate better collaboration within and outside the Commission ([Members – IGU Commission for Water Sustainability \(igu-water.org\)](http://Members – IGU Commission for Water Sustainability (igu-water.org))).

Currently, the Commission has a total of 63 registered members of which about a third (33%) is female. Some 85% of members are academics, 44% are professors while 15% are practitioners. Members originate from 26 countries on six continents of which 10 are in Europe, 7 in Austral-Asia, 5 in Africa and 4 in the Americas. Of these countries, 11 are falling in the high-income category representing 37% of members, 9 are middle-income countries representing the majority of members (48%) and 6 are low income nations accounting for 15% of members.

The membership per country is as follows:

1 Argentina	2
2 Armenia	1
3 Australia	1
4 Canada	1
5 China	6
6 Croatia	4
7 France	1
8 Germany	6
9 Ghana	1
10 Hungary	1
11 India	3
12 Italy	2
13 Japan	1
14 Nigeria	1
15 Norway	1
16 Portugal	2
17 Romania	6
18 Russia	6
19 South Africa	5
20 Spain	1
21 Swaziland/ Eswatini	1
22 Turkey	2
23 UK	3
24 USA	4
25 Zimbabwe	2

## B. Meetings

*IGU-requirements:*

- a. The meetings your commission organized in 2022 with information on their locations, dates, and numbers of participants.*
- b. A brief summary of the topics addressed at each meeting and the findings or conclusions resulting from the discussions if appropriate (please do not simply paste in the conference programme!). Please highlight any new initiatives and insights identified at each meeting. Note, please do not include the full conference programme but please do include a photograph or two if you have them).*
- c. The meetings or other events you plan to hold in 2023 and later years, including locations, dates, and the topics/themes to be addressed.*

### a. Meetings held

- **2022 Centennial Congress IGU, Paris, France (18-22 July 2022)**

This year's IGU Congress was dedicated to the 100<sup>th</sup> anniversary of IGU, which was established in Paris in 1922. On that occasion, the Commission presented an overview on its own 30-year-history, as only group dedicated to water within IGU (soon to be available on the website).

Owing to remaining uncertainty regarding possible travel restriction related to Covid-19 there was a limited attendance of member. This even more so as travel restrictions for colleagues from China were still in place while colleagues from Russia were banned to attend the Congress due to the Ukraine crisis.

The submission process of sessions was very different from all previous congress as the organisers unilaterally decided to limit submission to one per person. I.e., in contrast to previous meetings where the chairs of the Commissions submitted a consolidated list of session agreed upon with their

respective SCs, this was not allowed at this event. Instead, each proposed session needed to be submitted by a different person rendering the submission process cumbersome and confusing. As a result, we had people registering a session on our behalf that were not even members of the Commission. At the same time, this process resulted in a much-reduced number of submitted session themes initially comprising 3 themes that were later reduced to two as one proposal (*Nexus approach to water security*) did not receive the required number of related submissions. Finally, the following 5 x sessions were held with Frank Winde and Liliana Zaharia acting as respective session chairs:

- **Frank Winde: *Water between need and fear: management approaches to water security and risks***

2 x sessions of 1.5-2h each at Tue, 19.07.2022, Centre Pantheon Sorbonne, Rue Saint Jaques 111-113, Room 307

A total of 10 x papers were scheduled of which only 3 were presented. While no apologies were received indicating reasons for the absence it is assumed that the extreme heat and lack of air conditioning at the venue resulted in such high number of no-shows. On initiative of the chair, some of the freed-up time was used to add an unplanned paper of an attending PhD-student and lively discuss her findings together with other PhD-students in preparation of her next day presentation. Except for the chair, none of the presenters were members of the Commission.

- **Liliana Zaharia: *Water sustainability in a changing world: hydrological, societal and ecological perspectives***

3 x sessions of 105' each at Fri, 22.07.2022, Geographical Institute, Rue Saint Jaques 191, Room 304

A total of 14 x papers were scheduled, 4 of which came from members of the Commission. However due to medical reason prof. Karthe could not attend, while all 3 colleagues from Romania did present.

Repeated request of prof. Zaharia to the conference organisers to reschedule the meeting away from the last day of the conference week were unfortunately not responded to resulting





*Snap shots from the Congress (clockwise: presenters at the Water between need and fear session, IGU banners on the boat cruise of the gala dinner, Frank and Liliana at the conference venue)*

### c. Meetings planned

- Prof. Zaharia is currently organising the **36<sup>th</sup> Conference of the International Association of Climatology (AIC)** taking place from **3 to 7 July 2023** in **Bucharest, Romania**. The general theme is “Climate, water and society: changes and challenges”. The associated call for papers was distributed among members calling for active participation.
- The Commission envisages to actively participate in the upcoming **35<sup>th</sup> IGC from 25-30 August 2024 in Dublin**, Ireland with a number of session themes still to be submitted.

## C. Networking

*IGU-requirements: a. Means, if any, by which your commission has collaborated with other IGU Commissions and Task Forces during 2022. b. Collaboration, if any, with other international, intergovernmental, or inter- and multi-disciplinary bodies in 2022. c. Cooperative efforts, if any, with the International Science Council (ISC) and the International Council for Philosophy and Human Sciences (CIPSH) programs, etc.*

### a. Collaboration with other IGU Commissions and Task Forces

*(1) Commission on Geography for Future Earth: Coupled Human-Earth Systems for Sustainability: International workshop on sustainability and Geography, 23-24 Nov. 2021, online conference (zoom)*

Following an invitation by prof. Wenwu Zhao, Chair Commission on Geography for Future Earth: Coupled Human-Earth Systems for Sustainability (Associate Editor-in-Chief of Geography and Sustainability, Director of Institute of Land Surface System and Sustainable Development, Faculty of Geographical Science, Beijing Normal University, No. 19, XinJieKouWai St., HaiDian District, Beijing 100875, PR China, Tel : +86-10-58802125, Email: [zhaoww@bnu.edu.cn](mailto:zhaoww@bnu.edu.cn)) our Commission was approached to chair the session on water, to which I agreed.





*Title slide of the workshop*

In his report on the conference prof. Zhao characterised the water session headed by Frank Winde as follows:

Panel Session F: **Water resources for sustainable development** was held at 18:30 Beijing Time on Nov. 23rd, led by prof. Frank Winde, chair of IGU Commission on Water Sustainability. Nine speakers from different countries introduced the latest research progress on water resources. The Panel Session F attracted more than 40 students and teachers from several universities and research institutes from China and abroad. Water resources are declining at an alarming rate across the world. Speakers noted that the use of water resources for agriculture and industry have contributed to the rapid decline in quantity and degradation of water quality. To predicted future properties, multi-source remote sensing images, multi-temporal Landsat images, 26 OBS data were analyzed during this session. Besides, the linear optimization model and CropWat model were applied to investigate water flows to other regions through regional wheat trade in the Huang-Huai-Hai Plain, based on the telecoupled framework. At the end, Prof. Frank Winde made a summary of the Panel Session. This Panel Session provided an opportunity for researchers and students to communicate and share their ideas and concerns about the topic.

*(2) Joint IGU book project (Bansky & Meadows [eds.] )*

Over a year ago the Commission was approached to consider input into a planned 250-page IGU book project on the “*directions of research of contemporary Geography and its relations with other disciplines of science*” co-edited by proffs. Bansky (Poland) and Meadows (South Africa). The Commission immediately indicated its interest to contribute, which was acknowledged by prof. Bansky indicating that we will be kept posted on progress and required input. Somewhat surprisingly, just after the Paris Congress, we were informed that our Commission will be represented by a single paper from South Africa relating to the Covid-pandemic. As this paper could not possibly reflect the width and breadth of the Commission’s work I insisted that a more comprehensive input would be required to adequately reflect the spectrum of research at our Commission. After some correspondence, this was eventually agreed upon. Subsequently, proffs. Jones and Winde compiled a preliminary introductory chapter, which still needs to be completed and

submitted.

## **b. Collaboration with other international or inter- and multidisciplinary bodies**

Various members of the Commission engaged in projects relating to research organisations at highest international level (examples F. Winde: IAEA: Environet Working Group 5: *Valorisation of NORM waste in a circular economy*; *Coordinating Group on Uranium Legacy Sites in Africa*, CGULS-Africa; MINDER – international EU-Erasmus Master course; WHO-IARC: *Hair as bio-indicator of environmental U-exposure*; UNESCO-IGCP: *Environmental and health effects of abandoned mines in Africa*).

## **c. Cooperative efforts with the International Science Council (ISC)**

### *(1) UN-Water Conference 2023: ISC representation*

Proffs. Meadows and Winde were approached to represent ISC at preparatory meetings for the upcoming UN-Water Conference in March 2023 in New York (USA). Despite the rather short notice, Prof. Winde was able to prepare an intervention on behalf of the ISC that he presented in the round table discussion on Capacity Building on 24 October in New York. ISC was also represented by Mr. Anthony (Bud) Rock (USA) who has extensive experience in the UN system and provided two interventions at the first day round table discussion on Governance and the second day General Assembly meeting. Prof. Winde compiled a feedback report to ISC that includes a brief analysis of the role ISC should play in the UN-Water initiative, a brief SWOT analysis of ISC as well as recommendations on how to proceed. Subsequently prof. Winde was nominated by the IGU President to represent IGU on a special advisory committee for Water within ISC. Prof. Winde also solicited input from Commission members who might be involved in related activities.

### *(2) ICOMOS: Water heritage at ISC*

The Commission was approached by prof. emeritus Je-Hun Ryu (Korea National University of Cultural Heritage, Professor Emeritus, Korea National University of Education, Chair, IGU Commission on the Cultural Approach in Geography, Chair, AGA Working Group on Cultural Geography) to explore how to support water heritage activities of ICOMOS (International Council on Monuments and Sites) within ISC, coordinated by Ian Travers, President, ICOMOS ISC Water and Heritage ([International Scientific Committee on Water and Heritage \(icomos.org\)](https://www.icomos.org)). A follow-up meeting between proffs. Winde and Ryu was held at the gala dinner at the Paris Congress in July 2002. Since then no further activities occurred.

## **D. Publications**

*IGU-requirements: a. Newsletters, special journal issues, and books published in 2021-22 (please provide complete citations). Note these publications should only be included if they are directly related to your IGU Commission activities (i.e. not a list simply pasted in from the cvs of steering committee members!) b. The current (accurate) URL of the commission's website.*

### **a. Newsletter and reports**

For capacity reasons no newsletter could yet be compiled for 2022. Since all reporting duties are currently left exclusively to the chair, this situation may not improve in the near future.

### **b. Special issues, books**

Prof. Opp invited contributions from members to a total of three Special Issues:

- Nov. 2021: Journal *Sustainability*: “The Evolution of the Water–Energy–Food Nexus towards Global Sustainability Challenges” ([Sustainability | Special Issue : The Evolution of the Water–Energy–Food Nexus towards Global Sustainability Challenges \(mdpi.com\)](https://www.mdpi.com/journal/sustainability/special_issues/water-energy-food-nexus))
- Nov. 2021: Journal *Applied Science*: "Floodplains and Reservoirs as Sinks and Sources for Pollutants" (<http://www.mdpi.com/journal/applsci>).
- Aug. 2022: Journal *Applied Science*: “River and Lake Catchments: Ecological Challenges,



### *Hydrological Changes, Environmental Problems”.*

In addition, there are currently two joint book projects underway at the Commission initiated and /or coordinated by proffs. Karthe (Hydrogeography) and Beckedahl (Springer: Applied Geomorphology and contemporary issues).

#### **c. Website**

The address of the Commission’s website still is: [www.igu-water.org](http://www.igu-water.org).

## **E. Archival contributions**

*IGU-requirements: Materials and publications transmitted to the IGU archives by your commission. Copies (soft copies if appropriate) of all newsletters, monographs, special journal issues, etc. should be sent to the IGU Secretary-General upon publication for transmission to the archivist. Photographs from your meetings, field excursions, or other events that you are willing to share are especially gratefully received and will be included in the IGU e-Newsletter. The Commission’s reports will be published on the website and in the IGU. These reports will also provide the Executive Committee with information for the evaluation of Commissions in regard to their continuation.*

A section on the Commission’s revamped website is dedicated to archiving news, reports and other documents at [Newsletters & Reports – IGU Commission for Water Sustainability \(igu-water.org\)](http://www.igu-water.org).