



## INTERNATIONAL UNION OF GEOLOGICAL SCIENCES (IUGS) COMMISSION ON GEOSCIENCE EDUCATION (COGE)

### TERMS OF REFERENCE

(Revision, August 2024)

#### 1. BACKGROUND

- 1.1 The IUGS Commission on Geoscience Education (COGE) is an international scientific Committee established by and acting under the auspices of the International Union of Geological Sciences (IUGS).
- 1.2 COGE is bound by the IUGS Statutes and the IUGS By-Laws for commissions.
- 1.3 The COGE was established in 2004 by the IUGS to examine and develop programs to assist developed and developing countries in maintaining, expanding, or providing better Earth Science education within their country.
- 1.4 Global surveys of geoscience education have shown variability and great scope for improvement worldwide. They show that around a third of countries worldwide do not have geoscience in their school curriculum; for those countries that do, it is common for schools not to follow curriculum guidelines related to geoscience, teachers of geoscience are not well supported, and the textbooks and teaching materials they rely on are of only moderate or inferior quality. In this regard, the most effective way to improve geoscience education is to target teachers and other educators, providing them with suitable teaching materials and especially training them on how to use these documents most effectively.
- 1.5 Experience indicates that geoscience educators can be sub-divided into five main groups:
  - 1.5.1 Teachers of geoscience in Higher Education.
  - 1.5.2 Teachers of geoscience in schools and colleges with solid geoscience backgrounds.
  - 1.5.3 Teachers with weak backgrounds in geoscience.
  - 1.5.4 Providers of informal geoscience education.
  - 1.5.5 Researchers into geoscience education.

#### 2. GOAL, OBJECTIVES, VISION, AND MISSION

- 2.1 COGE's primary goal is to collaborate globally with stakeholders to develop and promote strategic geoscience education, focusing on underrepresented regions and



modern challenges.

## 2.2 Specific Objectives

- 2.2.1 Promote and coordinate Geosciences Education activities at the international, national, and regional levels through robust collaboration with global stakeholders, including research, workshops, conferences, and publications.
- 2.2.2 Establish a global geoscience education network that represents at least 2 representatives per country, as well as gender equality and a diverse age range among its members.
- 2.2.3 Develop and disseminate information and guidelines for good practice in Geosciences Education.
- 2.2.4 To administrate the Geoscience the Education Field Officer Program
- 2.2.5 To recognize outstanding geoscience educators around the world with the Chris King Medal.
- 2.2.6 Report the work performed, plans, and budget for the following year annually to the IUGS.
- 2.2.7 Develop targeted initiatives to enhance geoscience education in underrepresented regions, ensuring equitable access to resources and opportunities.
- 2.2.8 Integrate contemporary challenges such as climate change, sustainability, and technological advancements into geoscience education programs and resources.

## 2.3 Mission

- 2.3.1 Advocating for geoscience education policies, providing professional development for educators, and collaborating on developing and disseminating educational resources globally.

## 2.4 Vision

- 2.4.1 To facilitate collaboration and innovation globally for promoting geoscience education and raising awareness about the importance of the field, enabling individuals to make informed decisions about the Earth's future.

### 3. STRUCTURE

3.1 The COGE Board is formed by ordinary members and leads the commission towards achieving its objectives. It includes the following positions:

3.1.1 A **Chair**, as the leader and main representative of the Commission. This role involves overseeing the strategic direction and operations of COGE, ensuring alignment with its mission/vision and goals. Key responsibilities include:

- Chairing meetings
- Guiding the development and implementation of COGE's initiatives
- Liaising with the IUGS commissions and other relevant organizations
- Representing COGE at various events and platforms.
- Facilitating collaboration among COGE members, fostering a productive and inclusive environment.
- Is a member of the Finance Committee

3.1.2 A **Vice-Chair**, whose responsibilities are:

- Assist the Chair in strategic planning and execution.
- Oversee subcommittees, members activity and targeted projects as needed.
- Step in as acting Chair during the Chair's absence.
- Facilitating collaboration among COGE members, fostering a productive and inclusive environment.
- Is a member of the Finance Committee

3.1.3 A **General Secretary**, to complete the following duties:

- Manage internal communications, such as meeting agendas and minutes.
- Maintain accurate and current archives.
- Work with the Board to organize/call meetings and communicate to members when relevant.
- Elaborate forms/development surveys.
- Facilitate communication with regular/associated members of the commission.
- Is a member of the Membership Committee

3.1.4 A **Treasurer**, responsible for managing the Commission's financial affairs. This includes overseeing budget preparation, financial planning, and reporting. Other responsibilities:

- Ensures the financial integrity and sustainability of the Commission by monitoring income and expenditure Maintaining accurate financial records

and ensuring compliance with relevant financial regulations and standards.

- Advises the Chair and other members on financial matters.
- Assists in fundraising efforts and contributes to the strategic financial planning to support COGE's activities and goals with the COGE finance committee.

3.1.5 A Social **Media coordinator**, to complete the following actions:

- Develop and implement a social media strategy for COGE.
- Manage website and coordinate with COGE social media team members to update contents in COGE social media accounts to engage under approval of COGE Board.
- To report activities, updates in quarterly meetings and when required.
- If no webmaster is appointed, social media coordinator undertakes that role.

3.2 The following Sub commissions and Committees have been established to fulfil the goals and objectives of COGE better:

3.2.1 Sub-commissions

- International Relations
- GEFO Program
- Public Outreach and Communication
- Equality, Diversity, and Inclusion

3.2.2 Committees:

- Social Media
- Publication
- Awards
- Finance
- Membership

3.3 Responsibilities of Subcommissions and Committees are listed in Appendix B of this ToR.

3.4 Participation of Leaders in COGE Board Discussions: Leaders of subcommittees and committees have the right to participate in official Board discussions and express their opinions but do not have voting rights.

## 4. MEMBERSHIP

4.1 All members must follow the Commission's ethos and goals, as well as practicing interpersonal geoethical values such as: honesty, integrity, conviction, transparency and

respect for others.

#### 4.2 Regular (Voting) Members

- 4.2.1 The term for Regular members is four years, and there will be one representative per country.
- 4.2.2 Have a record of demonstrated experience in geosciences education.
- 4.2.3 Can nominate and sponsor a Regular and Associate member every year.
- 4.2.4 Will represent a Country in the Commission and have the right to vote on any proposals formulated by the COGE Board.
- 4.2.5 Can elect the Board of COGE.
- 4.2.6 Can be eligible to be appointed for one of the positions on the Board.
- 4.2.7 Must participate in the COGE Quarterly Meetings and be part of COGE's Sub-commissions/Working Groups/committees.

#### 4.3 Associate Members

- 4.3.1 The term for Associate members is four years, and there will be one representative per country.
- 4.3.2 Are representatives interested in contributing to and participating in COGE's Sub-commissions/Working Groups/committees or projects.
- 4.3.3 Despite not holding office or making nominations, Associate Members benefit from COGE membership.
- 4.3.4 After three years of being associate members, those with verified activities and publications on Geosciences' education and/or communication of Earth Sciences could apply to become Regular Members.

#### 4.4 COGE members participate actively in:

- 4.4.1 The commission projects/activities
- 4.4.2 Promotion and diffusion of local/regional/national research initiatives on Geoscience education.
- 4.4.3 Publication of individual and collective works on Geosciences education.
- 4.4.4 Participating in international events aimed at improving the quality of geoscience education worldwide.
- 4.4.5 Creating a supportive space to exchange ideas and discuss collaborative projects related to geoscience education.

## 5. ELECTIONS, BOARD AND MEMBERSHIP DURATION

- 5.1 Main considerations and steps when selecting Voting Members or Associated Members are available in Appendix A.
- 5.2 The Regular members will elect the Board of COGE following the COGE Board election procedure (see Appendix C).
- 5.3 Criteria for Selecting Leaders of Subcommittees and Committees (see Appendix C)
- 5.4 Each Board member can apply to the next election for only one consecutive term.
- 5.5 Regular Members should spend no more than two consecutive terms on the Commission representing their country. However, the Board reserves the right to extend this term when no suitable alternative candidates are available to continue representing a country as a commission member.
- 5.6 Former Board members may continue supporting the new Board as advisors only if most Board members agree. However, they do not have rights to decide any Board's affairs.
- 5.7 Elections will be organised every four years by COGE General Secretary, who will call a special committee to set up the elections.
- 5.8 All Regular Members must have returned a vote (including abstentions) on any Commission Survey/Proposal.
- 5.9 When a voting process does not yield a quorum, the Board reserves the right to make a casting vote.
- 5.10 Any mid-term vacancies that may arise within the established Board period will be discussed and resolved using a virtual poll or if the Regular members agree, in an extraordinary meeting.
- 5.11 COGE Members list must be submitted to the IUGS Secretariat for review five months before the next IGC (International Geological Congress). IUGS Commission on Geoethics will review the list before IUGS council evaluation. Once approved, members will have a 4-year term, beginning and ending at successive IGCs.
- 5.12 Every year (during the term of an elected Board), members (regular and associated) are asked to reaffirm their membership and involvement activity will be assessed every six months by the Membership Committee that will inform the Board.
- 5.13 Failure to respond to COGE consultations (e.g., voting on time, responding to meeting callings, and relevant communications) will result in a membership status review.
- 5.14 COGE Board will follow up on engagement of all members in the above-mentioned activities.
- 5.15 Upon two inactivity reports a Regular Membership is transitioned to Associate status.
- 5.16 Associate Membership will be terminated if the membership committee reports inactivity or violation of the rules outlined in this ToR.

## **6. PROFESSIONAL BEHAVIOUR**

- 6.1 Each voting member and officer of the Commission should treat others with respect.
- 6.2 Disrespectful and unprofessional comments directed at other commissioner's whether in person or over e-mail will not be tolerated.
- 6.3 Should a contentious situation occur, the Board and membership committee will initially deal with the matter.
- 6.4 After an investigation, the Board may issue a warning or terminate the membership of those involved in unprofessional conduct.
- 6.5 Activities considered inappropriate or in opposition to the Commission's ethos, aims, and values (item 4.1) may also result in termination or veto of the COGE membership.

## **7. ESTABLISHMENT OF SUB-COMMISSIONS, WORKING GROUPS AND COMMITTEES**

- 7.1 The Commission shall appoint Sub-commissions, Working Groups, and Committees as necessary to carry out its purposes. These subordinate bodies are defined as follows:
- 7.2 Sub-commissions are bodies within the Commission of unlimited duration, created to study and investigate geoscience education strategies all over the world.
- 7.3 Working groups are bodies within the Commission or sub-commissions constituted to carry out specific tasks of limited duration or in a limited area of specialization, and have official support to be able to move on, represent and have the support to speak in their countries.
- 7.4 Committees are bodies created for specific administrative or organisational tasks which may lead to the setting up of a new Working Group or, eventually, a Sub-commission.
- 7.5 The COGE Board shall submit the proposal to create these new bodies to the COGE Regular members through a virtual form for feedback. Once confirmed, the initial members and officers from each proposed body can be selected from among COGE members who decide to apply. The IUGS Executive Committee will need to give the official approval of each Sub-commission, Working Group, and Committee.
- 7.6 The process for creating Sub-commissions, Working Groups, and Committees, includes seeking feedback from Regular members and allowing members to apply to be part of these groups.
- 7.7 Leadership roles within each subcommission are open to COGE members who voluntarily apply and ready to support and work, demonstrating their commitment and

expertise. The selection process for these roles adheres to the ToR Appendixes that guides all kind of elections, ensuring consistency and fairness across our governance structures.

- 7.8 COGE activities and organizational culture are continually aligned with principles of inclusivity and diversity.
- 7.9 Members are encouraged to freely choose to apply for joining the subcommissions or committees that align with their interests and expertise, fostering a proactive and engaged community within COGE, and collaboratively working towards achieving COGE's mission.

## **8. MEETING ARRANGEMENTS**

- 8.1 The COGE Board will maintain contact via email and call extraordinary sessions when needed.
- 8.2 Regular virtual meetings of voting members are held at least quarterly.
- 8.3 A general assembly is organised every year
- 8.4 It is expected that COGE will organize and lead a thematic meeting/session at every IGC.
- 8.5 Sessions and meetings related to COGE's objectives may be organized in collaboration with partner organizations.

## **9. DELIVERABLES**

- 9.1 Quarterly reports from sub-commissions and subcommittees shall be sent to the Commission's General Secretary of the to be shared with voting members during regular meetings. Monthly reports can also be summarized and included in the IUGS e-bulletin via the social media team.
- 9.2 The Commission's annual report must include an overview of activities, achievements, and the budget for the current year.
- 9.3 The annual Work Plan-Strategy includes a budget proposal to support the delivery of the subcommittee/committee activities and products for the upcoming year.

## **10. FINANCE COMMITTEE**

- 10.1 The Finance Committee prepares an annual budgetary proposal based on the Commission's proposed annual work plan to be submitted to IUGS.
- 10.2 Budget will focus on consolidating the position and role of COGE sub commission/programs in the context of other global and international programs
- 10.3 Under approval of IUGS, COGE could provide financial support to activities involving direct communications/discussions with key global stakeholders if those are included in



the annual budget allocation.

10.4 COGE will seek sponsorship for specific projects and activities when relevant.

## **11. SOCIAL MEDIA COMMITTEE**

11.1 The COGE website is managed and updated by the commission's webmaster with previous approval from the COGE Board.

11.2 The website includes sections in which relevant documents (Annual Reports, meeting minutes, and others) and COGE activities will be posted and documented for transparency.

11.3 The commission activities will be disseminated through the COGE social media platforms.

11.4 Contents may be launched weekly preview online review by COGE Board ensuring accuracy and alignment with COGE mission/goals.

11.5 An approval from two Board members not included on the COGE Social Media Committee is required prior to share any publication on COGE social media channels and website.

## **12. CONTROVERSY SOLUTIONS**

12.1 Any controversy arising from the application of this ToR, its interpretation, disagreements between members that may become subject to compromise and the resolution of complaints and ethical issues will be referred to the IUGS Commission on Geoethics.

12.2 To regulate what is not specified in this ToR, all the rules laid and contained in the IUGS By Laws will be considered, recalled and transcribed.

## **13. REVIEW OF TOR**

13.1 The whole or part of this ToR may be modified as deemed necessary to ensure it remains relevant and effective in light of the Commission's mission and goals.

13.2 Any proposed amendments will be subject to endorsement and approval by the IUGS Council.

## Appendix A: Criteria When Selecting Voting and Associate Members

1. Membership Term
  - The term for Regular (voting) and Associate members is four years, and there will be two representatives per country (ideally one voting and one associate).
  - After three years of being associate members, those with verified activities and publications on Geosciences' education and/or communication of Earth Sciences could apply to become Regular Members, to be considered in the next election (held every 4 years).
2. Experience Requirement
  - Candidates must have a record of demonstrated experience in geosciences education specifically in research contributions, and professional experience (mandatory for voting members).
  - Candidates to become Associate members of COGE, must demonstrate interest and relative experience in geosciences education, outreach, or communication.
3. Nomination
  - Regular members can nominate and sponsor Regular and Associate members from underrepresented countries.
4. Voting Rights
  - Regular members represent their country in the Commission and have the right to vote on any proposals formulated by the COGE Board.
5. Election Participation
  - Regular members can elect the Board of COGE and are eligible to be appointed to one of the positions on the Board.
6. Commitment to COGE Goals
  - Alignment with the commission's objectives alongside the expectation of adherence to geoethical values (item 4.1 of ToR) and promoting an inclusive culture within COGE.
7. Global Representation
  - COGE is looking at representation from underrepresented regions to foster diverse perspectives and inclusive decision-making.
  - COGE aims to recruit at least 2 representatives per country, promoting geographical diversity and ensuring a broad range of perspectives within its activities and decision-making processes.

## Steps to Select Voting and Associated Members

1. Current Regular members use their nomination rights to propose candidates for Regular membership based on the candidates' demonstrated experience in geosciences education. However, those candidates who consider they can contribute are also welcomed to apply without a COGE members as sponsor.
2. Each country is represented by one Regular member, ensuring that the selection process respects this requirement to maintain geographical diversity and representation.
3. Review, and final decision-making is made by online voting.
4. The list of COGE members must be submitted to the IUGS Secretariat for review five months before the next International Geological Congress (IGC).

## Appendix B: Responsibilities of Subcommissions and Committees

### B.1 Subcommissions

1. International Relations Subcommission
  - Foster and maintain relationships with international geoscience organizations and educational bodies.
  - Promote international collaboration on geoscience education projects and initiatives.
  - Represent COGE in international forums and conferences.
2. GEFO (Geoscience Education Field Officer) Program Subcommission
  - Coordinate the Geoscience Education Field Officer Program.
  - Develop and implement training programs for field officers including educational material to be used in workshops for teachers.
  - Monitor and evaluate the effectiveness of the GEFO program and provide reports to the COGE Board.
  - Producing new educational tools or developing existing tools such as ELI for the sharing materials
3. Public Outreach and Communication Subcommission
  - Develop and implement strategies for public outreach to promote geoscience education.
  - Organize public events, workshops, and seminars to raise awareness about geoscience.
  - Support creation and distribution educational materials to schools, colleges, and the general public.

ToR v0.2 formally approved by COGE on August 19, 2024, waiting for ratification during the IGC 2024.

4. Equality, Diversity, and Inclusion Subcommittee
  - Promote equality, diversity, and inclusion within COGE and the broader geoscience education community.
  - Organize events and initiatives to support underrepresented groups in geoscience education.
  - Monitor and report on the progress of EDI initiatives within COGE.

## **B.2 Committees**

1. Finance Committee
  - Prepare an annual budgetary proposal to be submitted to IUGS based on the proposed annual work plan of the Commission.
  - Focus the budget on consolidating the position and role of COGE sub-commission/programs in the context of other global and international programs.
  - Provide financial support to activities involving direct communications/discussions with key global stakeholders if included in the annual budget allocation (subject to IUGS approval).
  - Seek sponsorship for specific projects and activities when relevant.
2. Social Media Committee
  - Manage and update the COGE website with previous approval from the COGE Board.
  - Maintain sections for relevant documents (Annual Reports, meeting minutes, and others) and COGE activities for transparency.
  - Disseminate commission activities through COGE social media platforms.
  - Launch content weekly after online review by COGE Board, ensuring accuracy and alignment with COGE mission/goals.
  - Require approval from two Board members not included on the COGE Social Media Committee prior to sharing any publication on COGE social media channels and website.
3. Publications Committee
  - Oversee the production and distribution of COGE publications, including newsletters, reports, and academic papers.
  - Ensure the quality and relevance of content published under the COGE name.
  - Collaborate with external publishers and journals to promote COGE's work.
4. Awards Committee
  - Manage the nomination and selection process for the Chris King Medal and other awards.
  - Ensure a fair and transparent selection process, adhering to COGE's values and goals.

- Promote and publicize award recipients and their contributions to geoscience education.

#### 5. Membership Committee

- Maintain an accurate and up-to-date record of COGE members.
- Evaluate and approve new membership applications.
- Engage with members to ensure active participation and contribution to COGE's activities.
- Conduct periodic reviews of member engagement and report findings to the COGE Board.

#### Appendix C: COGE Board election procedure (available on COGE website)

This procedure ensures a transparent, democratic, fair, and inclusive election process for COGE Board members, adhering to the COGE ToR and IUGS-established guidelines. The key steps are as follows:

##### 1. Formation of Elections Subcommittee

- The COGE Board appoints an Elections Subcommittee composed of non-board members a year prior to the culmination of the Board's quadrennial term (at least six months before an IGC).
- In case of unexpected Board vacancies, an interim Elections Subcommittee is formed to fill the vacancy, adhering to the same election protocols.

##### 2. Opening of Positions

- The Elections Subcommittee announces the call for vacant positions on the COGE Board, providing position descriptions and application requirements.
- Geographic diversity and inclusivity are emphasized in the call.

##### 3. Candidates Application

- Applicants must be COGE regular members. If no regular members apply or only one does, the Elections Subcommittee may accept applications from associate members with the majority agreement of voting members. Current board members are eligible for re-election only once.

##### 4. Submission of Documents

- Curriculum Vitae (CV): Highlighting academic qualifications, professional experience, research contributions, and relevant leadership roles.
- Statement of Plans for the COGE Board: Up to 500 words outlining the applicant's vision and plans for the desired position, including specific ideas for advancing COGE's initiatives and promoting geoscience education globally.

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- Statement of Experience and Contributions to COGE: Up to 500 words detailing significant contributions and involvement in COGE activities.
5. Candidate Proposal Presentation
- Candidates' application documents are emailed to COGE voting members for review.
  - Candidates present their backgrounds, qualifications, and COGE development plans during a quarterly meeting. A link to the presentation recording is provided for members unable to attend.
6. Circulation of Nominated Candidates
- The Elections Subcommittee presents proposed candidates to all voting commissioners (COGE Regular members) for a one-week voting period.
7. Election Criteria and Terms
- A new Board will be elected every four years.
  - A quorum of at least 60% of the Regular members' votes must be reached to determine the election of the COGE Board.
  - Each Board member can apply to the next election for only one consecutive term.
  - Former Board members may continue supporting the new Board as advisors only if most Board members agree. They do not have rights to decide any Board's affairs.
8. Voting Process
- A Survey Form (Google Form) is distributed to all regular (voting) members via email with clear instructions and a deadline for voting.
  - Voting members evaluate the candidates based on their qualifications and willingness to serve on the Commission.
9. Announcement of Elected Board Members
- The Elections Subcommittee officially declares the newly elected Board members, who assume their responsibilities after approval by the IUGS Executive Committee and ratification by the IUGS-IGC Council.