

COGE 2022 ANNUAL REPORT

1. Introduction

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).

COGE was established in 2004 and is bound to the IUGS Statutes and By-Laws. The critical role of geoscience education makes its improvement worldwide crucial. The main goal of this Commission is to examine and develop programs for assisting countries worldwide in maintaining, expanding, or providing better Earth science education.

After the premature passing of Professor Chris King, the chair of this Commission, COGE members called for elections and voted Dr. Sandra Villacorta into the position in June 2022.

The current structure and organisation of COGE can be found in the working plan strategy attached to this report, which includes details of the 2023/24 budget and a list of planned activities. The accomplishments of COGE during 2022 are listed below.

During 2022, constant communication with COGE members is maintained by email and virtual meetings. Policy documents, meeting minutes and other relevant papers are stored in a Google file that is accessible by all members of the Commission.

2. Achievements attained

Organisational documents were formulated and approved following the assessment and exchange of ideas among commissioners and the support of short surveys/polls. Due to the small number of members on the commission, which did not reflect the global expertise in geoscience education, a nomination process for new members was formulated. COGE Terms of reference (ToR) and the Geoscience Education Field Officer (GEFO) Policy have been prepared to have guidelines/regulations for COGE activities and administration. These documents were uploaded and can be found on the COGE website. The call for new commissioners opened in July 2022, and we welcomed six new members: 2 new ordinary members (Italy and USA) and four new associate members (Spain, Iran, Portugal and Mexico). It took some time to collect previous reports and organise responsibilities. This allowed the updating of the COGE Website and the formulation of subcommittees.

COGE members supported the organisation of Earth science olympiads in Korea, the USA, Peru and Chile and plan to expand the support in other countries in future years. Representatives of the Commission are in discussion with representatives of EGU Education Committee to consolidate the collaboration between the Field Officer programs started by Professor King and to investigate other opportunities to promote geoscience education. The Commission is also in the early stages of discussion with the ENGIE Project. In addition, a proposal for the IGC 2024 session on Geoscience Education was submitted to the IGC committee for evaluation.

Summarising the main achievements are:

- COGE Documents: Chris King Prize, nomination process for new members ToR and GEFO Policy
- 6 new members (4 Associate and 2 Ordinary) have joined the Commission.
- COGE supported Earth science olympiads in Korea, the USA, Peru and Chile
- Renewed the coordination with EGU to continue the Geoscience Education Field Officer (GEFO) program.
- Updating COGE website and uploading organisational documents and previous reports
- Creating and starting activities on the following social media platforms: Facebook, Twitter, Instagram and recently, LinkedIn.
- IGC 2024 Session Proposal on Geoscience Education

3. Current Projects/Activities and planned for 2023

The main activity of COGE at 2022 is the Geoscience Education Field Officer Program. Plans for COGE at 2023 are launching of Chris King Prize and collaborative initiatives with other partners and IUGS commissions which are detailed in the attached COGE working plan 2023 (PDF doc).

3.1. Geoscience Education Field Officer (GEFO) Program

The GEFO program was established and managed by Professor Chris King in 2019. Its main task is to promote and improve geoscience education in schools worldwide. Table 1 shows the appointed COGE GEFOs up to date and Table 2 the performed activities by field officers in 2022 and future plans.

In May 2022, following a call from EGU, the GEFO initiative was expanded to seven additional European countries. New GEFOs including seven supported by IUGS-Coge were trained at a workshop led by the EGU Education group at Barcelona, Spain between 28 and 29 of May. Participants of this activity are shown in Table 3.

Table 1. Showing the appointed COGE GEFOs up to date

Name	Country/Region	Year of Appointment
R. Baskar	India	2019
Yamina Bourgeoini	Morocco	2019
Jasmi Hafiz Bin Abdul Aziz	KL/Malaysia	2020
María Jesús Bravo Perez	Chile	2020
Pauline Yawoa da Costa	Togo	2020
Seydou Sogoba	Burkina Faso	2021
Venkatraman Hegde	India	2021
Carlos Echeverria Barajas	Colombia	2021

Table 2. Illustrating the GEFOs performed activities in 2022 and present its future plans

Field Officer	2022 sessions/Place	Participants number	2023 workshops
Seydou Sogoba	Ouagadougou, complexe scolaire Firdaws. Burkina Faso, 17 september 2022	21	workshop to secondary school teachers. Burkina Faso, Dec 2023
	Loumbila municipality, National training Institute of education personnel (INFPE). Burkina Faso, 16 november 2022	27	
	December 18, Workshop for primary and secondary teachers of national union of secular private educational establishments (UNEEPL) Ouagadougou	27	
Carlos Echeverria Barajas	Agricultural Technical Educational Institution for Rural Development. Boyacá, Colombia July 26, 2022	24	workshop to primary and secondary school teachers from the Agricultural Technical Educational Institution for Rural Development. July 2023
	Agricultural Technical Educational Institution for Rural Development. Boyacá, Colombia December 6 and 7, 2022	14	
Pauline Yawoa da Costa	Togo, 12 August		Location: Ligne, Nov 2023
María Jesús Bravo Perez			Workshops in primary and secondary schools. Location: Two Chilean cities to be defined. July to December.
			Workshop for science teachers at the 16th Chilean Geological Congress. Location: Santiago. Dec 2023

GEFO 2022 training in Barcelona (data provided by Jan Luc Berenguer and Gina Correia from EGU Education)

This was a two-day training course, which was supported by COGE in terms of travel and accommodation. The agenda of the 2022 training programme is presented in Appendix 1. The close collaboration with the EGU Education commission allowed the training of field officers beyond Europe. The programme included in this edition an Evaluation feedback (Appendix 3).



Picture 1. GEFO Training Programme 2022. Credit: Dragos Tataru.



Table 3. GEFOs, who participated on the 2022 training in Barcelona (Spain)

Name	e-mail	Country
Almida Cercizi	cerciziida@yahoo.it	Albania
Candan Kafali	candan26.ck@gmail.com	Turkey
Dragos Tataru	dragos@infp.ro	Romania
Fotios Danaskos	fdanas@yahoo.gr	Greece
Inga Zaitseva-Pärnaste	inga.zaitseva@gmail.com	Estonia
Peter Loader	peteloder@yahoo.co.uk	UK
Sylke Hlawatsch	kontakt@sylke-hlawatsch.de	Germany
Carlos Echeverría Barajas	carlos.echeverria@uptc.edu.co	Colombia
Jasmi Hafiz Bin Abdul Aziz	jasmihafiz@um.edu.my	Malaysia
María Jesús Bravo Perez	majesus.bravop@gmail.com	Chile
Pauline Yawoa da Costa	dzycosta@yahoo.fr	Togo
Seydou Sogoba	Seydousogoba21@gmail.com	Burkina Faso
Venkatraman Hegde	vshegde2009@yahoo.com	India
Gina P. Correia	gina_maria@sapo.pt	Portugal
Giulia Realdon	giuliarealdon@gmail.com	Italy
Guillaume Coupechoux	gcoupechoux21@gmail.com	France
R. Baskar	rbaskar@ignou.ac.in	India
Xavier Juan	xjuan03@gmail.com	Spain
Anna Anglisano Roca	anna.ar.93@gmail.com	Spain
Hélder Pereira	hpereira@es-loule.edu.pt	Portugal

3.2. Chris King Award

The IUGS-COGE Chris King Prize is formulated to honour outstanding geoscience educators. The prize will be awarded biannually to commemorate the life and work of Professor Chris King, his significant achievements in the advancement of geosciences education Details in the COGE Working plan 2023.

4. Use of COGE Budget in 2022

IUGS funds for COGE are administered by the COGE Secretary/Treasurer and are currently held at the University of South Australia. At the time of the last report (March 2022), US\$14 310.87 was remaining from the previous year (equivalent to A\$21 683.14 at the time). COGE received A\$10 899.18 from IUGS in May 2022. Interest received on account A\$0.0. Total funds available – A\$32 582.32.

Expenditure since previous IUGS-COGE report

- Bank fees A\$ 142.00
- Website management fee A\$ 158.09
- Field Officer Training A\$18075.00
- Field Officer Advance A\$ 6173.45
- Travel to EC Belfast A\$ 5500

Current Balance at 14.1.23 – A\$7614.78 = US\$ 5079.06

Sandra Villacorta
IUGS-COGE Chair *with support of COGE members*

Appendix 1 Showing the 2022 GEFO Training Agenda. Barcelona Spain

 Friday 27th May - evening

Time	Activity
As soon as current Field Officers arrives at the venue	Room setup

 Saturday 28th May - secondary, 'educational background'

Time	Activity
08.45 - 09.00	Welcome and introductions
09.00 - 10.30	Spot that rock workshop (Primary, Lower Secondary)
10.30 - 11.00	Break <i>Coffee/Tea</i>
11.00 - 12.30	The dynamic rock cycle workshop (Lower Secondary)
12.30 - 14.00	The educational background to ESEU workshops
14.00 - 14.45	Break <i>Lunch</i>
14.45 - 16.00	Earth's surface activity - quick to very, very slow workshop (Lower Secondary)
16.00 - 17.15	Exploring rock, soil, water, fossil workshop (Upper Primary)
17.15 - 17.45	Break <i>Coffee/Tea</i>
17.45 - 19.00	The structure of the Earth and plate tectonics workshop (Secondary)
19.00 - 19.30	Plenary: my experience as a Field Officer
21.00	Evening meal in a local restaurant

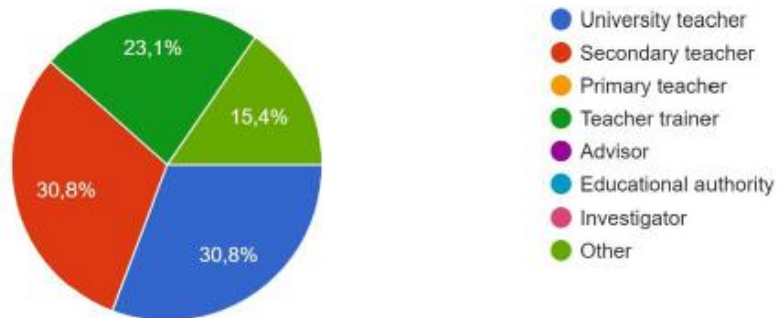
 Sunday 29th May - primary morning, afternoon of activities and discussion + kit guide

Time	Activity
09.00 - 10.15	The rock circus workshop (Lower Primary)
10.15 - 11.30	Earth Science around your school (around the Hotel) workshop (Primary, Secondary)
11.30 - 12.00	Break <i>Coffee/Tea</i>
12.00 - 13.00	Active Earth - living fossil workshop (Upper Primary)
13.00 - 14.30	Kit guide and plenary
14.30 - 15.30	Break <i>Lunch</i>
15:30 - 19.30	Guided walk to explore some aspects of the Urban Geology and Palaeontology of Barcelona
21.00	Evening meal in the residence

Appendix 2 Showing the survey feedback results on GEFO Training Programme in 2022, Barcelona, Spain.

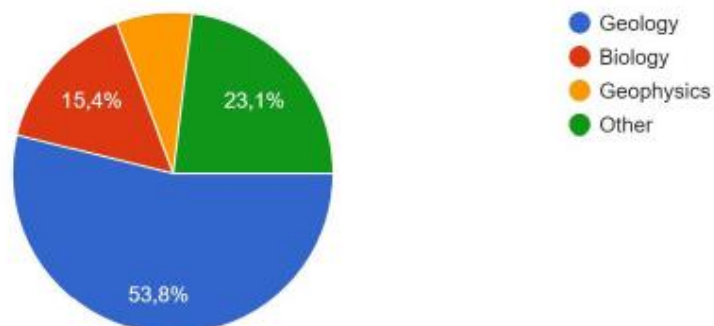
3. Which of the following describes better your job?

13 respuestas



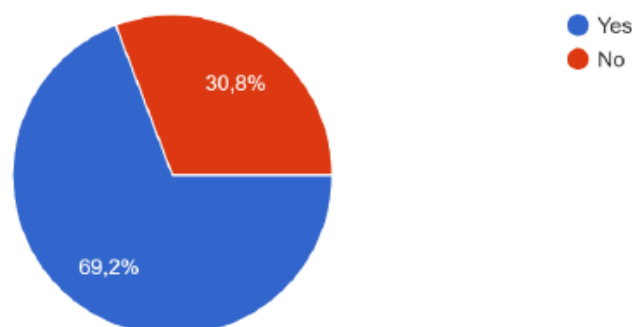
4. What is your main background

13 respuestas



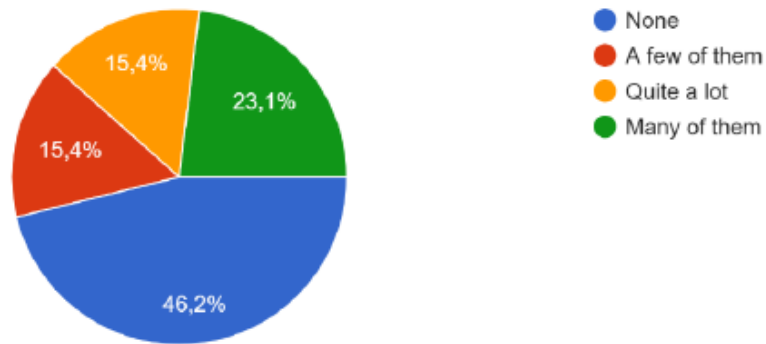
5. Before this training course, had you heard about the Earthlearningidea activities?

13 respuestas



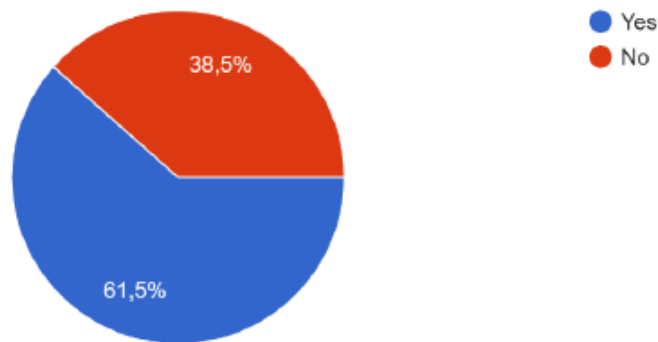
6. How many Earthlearningideas exist translated into your teaching language?

13 respostas



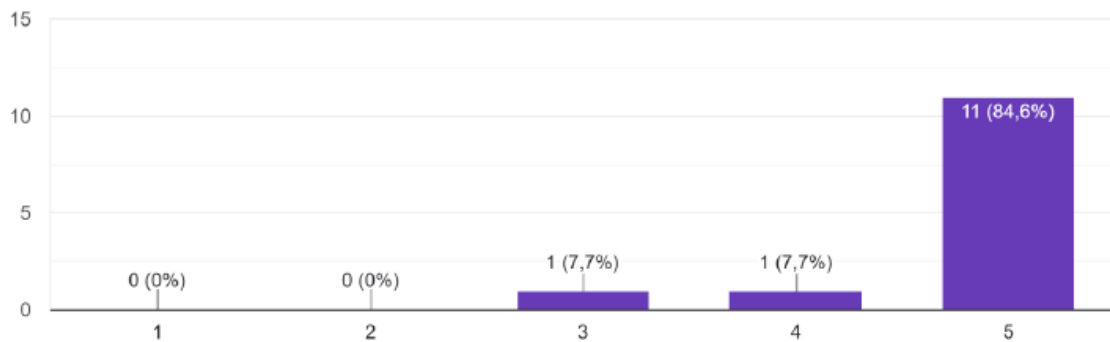
7. Before this training course, have you used any Earthlearningidea activity?

13 respostas



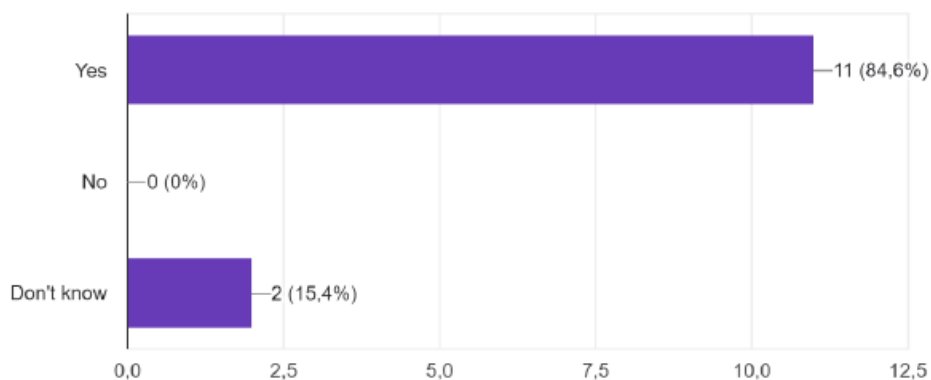
8. How useful will this training course be for your role as Geoscience Education Field Officer?

13 respostas



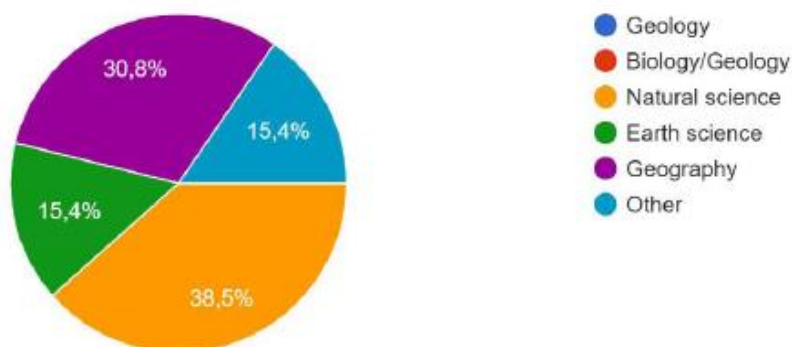
9. In your country, is there any subject in the primary school curriculum in which one can find geoscience content?

13 respostas



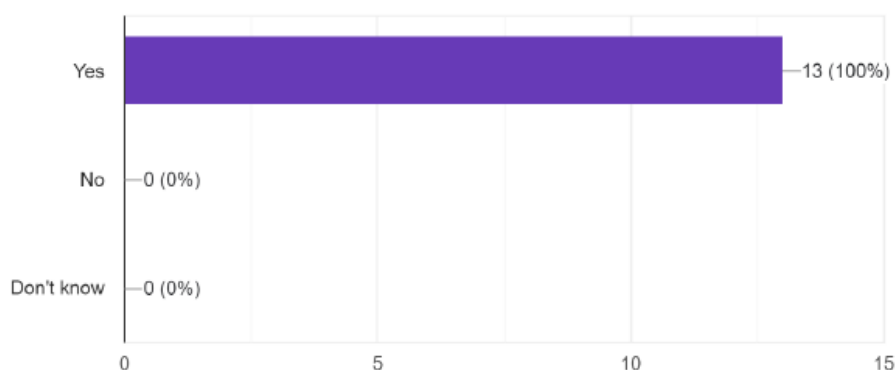
10. If yes, what's the name of the subject?

13 respostas



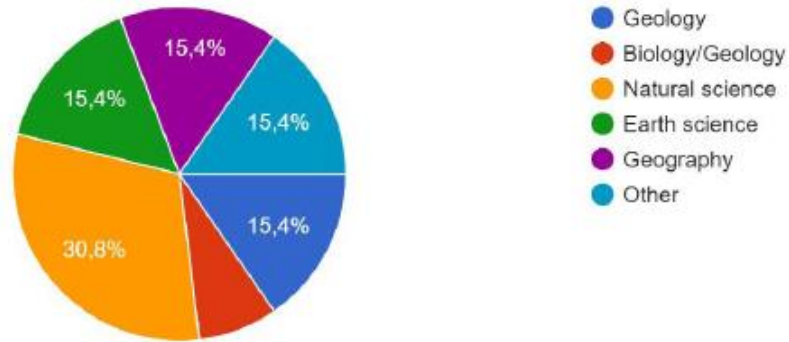
11. In your country, is there any subject in the secondary school curriculum in which one can find geoscience content?

13 respostas



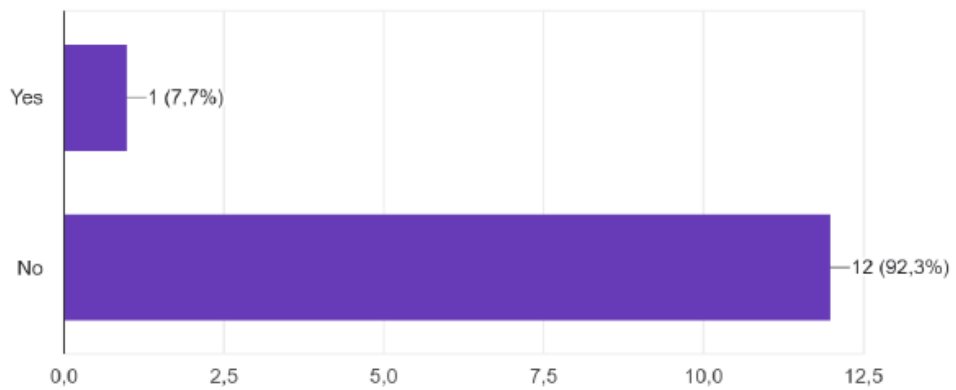
12. If yes, what's the name of the subject?

13 respostas



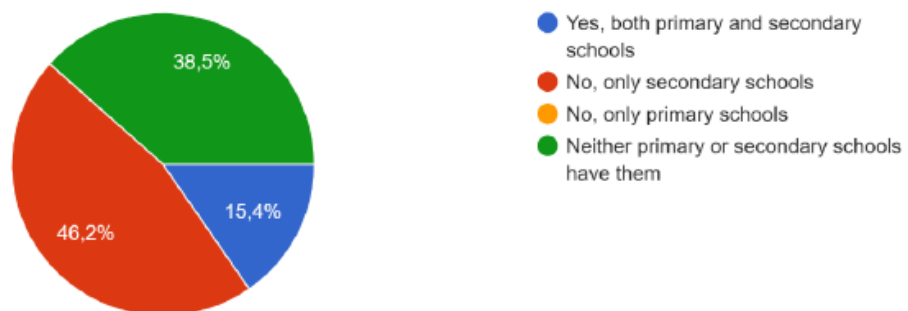
13. In your country, most of secondary school teachers who teach geoscience have a geological background?

13 respostas



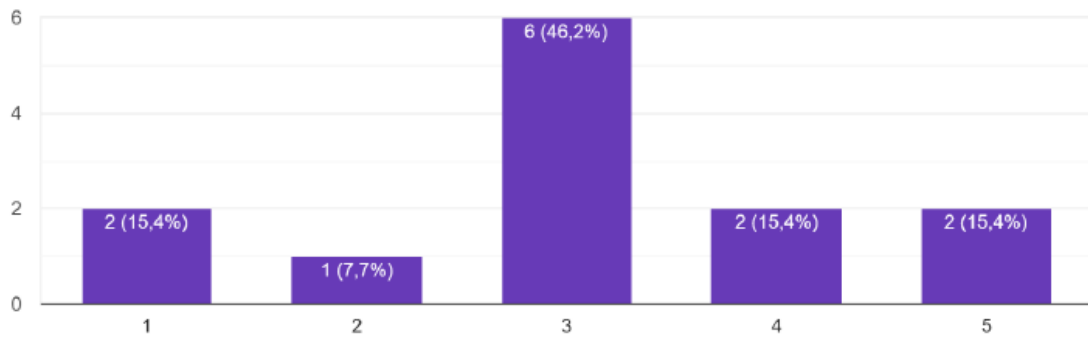
14. In your country, most of primary and secondary schools have a space (science labs) and a scheduled time to do practical activities?

13 respostas



15. In your country, is teacher training a priority for your Ministry of Education and, therefore, provides time and funding to it?

13 respostas



16. In your next future as Geoscience Education Field Officers, do you find useful to create a network to collaborate with each other and to share experiences?

13 respostas

