

MINUTES



INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

76th EXECUTIVE COMMITTEE MEETING

Virtual Meeting

22-24 February 2021

22 March 2021

Participants

IUGS Executive Committee:

John LUDDEN (JL; President), Stanley FINNEY (SF; Secretary General), Hiroshi KITAZATO (HK; Treasurer), Qiuming CHENG (QC, Past President, Chair of Nominating Committee), Daekyo CHEONG (DC; Vice President), Hassina MOURI (HM; Vice President), Claudia MORA (CM; Councilor), Silvia PEPPOLONI (SP; Councilor), Jennifer MCKINLEY (JM; Councilor), Ludwig STROINK (LS; Councilor)

IUGS Secretariat:

LI Wei (Secretary), SITU Yu (Secretary), GU Yanfei (Secretary), XU Yaqi (Secretary)

1. Welcoming

John Ludden (JL) welcomed all the EC members and Secretariat staff to attend the 76th IUGS Executive Committee Meeting.

2. Approval of Agenda

"IAGOD" was added to the item "14. Evaluation of annual reports of all Adhering Organizations", and the Agenda was approved.

3. 75th EC Meeting

3.a. Approval of Minutes of the 75th EC meeting

Motion to approve the Minutes of 75th IUGS Executive Committee Meeting.

Minutes was approved.

3.b. Status of Action arising from the 75th EC meeting

All the actions are either in progress or done.

4. Executive Committee Reports.

4.a. President's Report

The 36th IGC

John Ludden (JL) briefed on the progress since the informal virtual meeting on February 10th, 2021. According to the e-mail of Dr. Ranjit Rath, as of February 17th 2021, the number of reimbursements reaches 791, and the refund application of the New Zealand delegate has been submitted to the State Bank of India. The status of refund is given as below:

Particulars	Total Domestic Registratio n	Domestic refund processed by PCO	Domestic refund processed by IGC	Total International Registration	International refund Processed by PCO	International refund Processed by IGC	Number of participants attended Field Trip	Total Registration	Total refunded
Registration	1870	125	160	1123	455	5		2993*	745
FTC	48		8	167		10	16	215	34
Exhibition	25		11	34		1		59	12
Total									791

JL has contacted the 36th IGC LOC about the suggestions and decisions of the Executive Committee concerning the reimbursements of the 36th IGC. JL stressed that the IUGS EC would not discuss anything else with the 36th IGC LOC unless good progress is made on the reimbursements, the 36th IGC LOC should hire an international and reputable company as a third-party to manage the reimbursement

process, and have the refunding process fully functional (if not complete) by **May 1st, 2021**. JL told the 36th IGC LOC to remove the banner of the 36th IGC and post on the cancellation information, however, he hasn't got any response on this yet.

ICS Standing Committee for Gender Equality in Science (SCGES)

JL and Silvia PEPPOLONI (SP) have joined ICS Standing Committee for Gender Equality in Science (SCGES). JL was the second person on the Committee. It costs 300 USD a year. HK has been informed of the expense and considers it's a worthwhile thing to do.

Action: Secretariat to note and update committee lists and file the MoU.

Inter-Union Geosciences Meeting

JL attended the Inter-Union Geosciences meeting, which involves the following unions: International Astronomical Union (IAU), International Cartographic Association (ICA), International Geographical Union (IGU), International Society for Photogrammetry and Remote Sensing (ISPRS), International Union of Geodesy and Geophysics (IUGG), International Union of Geological Sciences (IUGS), International Union of Quaternary Research (INQUA), International Union of Radio Sciences (URSI), International Union of Soil Sciences (IUSS). The meeting encouraged the member countries to be more active in GeoUnions areas.

IUGS has been invited to join the ISC GeoUnions Standing Committee on Disaster and Risk Reduction (SCDRR). JL proposed to nominate Carlo Doglioni and Hiroshi Kitazato (HK) as the two members (either one acting as an alternate) Prof. Doglioni is a member of the Accademia dei Lincei, the National Academy of Sciences, and the Academy of Europe; he is Full Professor of Geology at the Sapienza University of Rome, and from 2016 he is President of the Italian Institute of Geophysics and Volcanology.

The EC approved the IUGS membership of the ISC GeoUnions Standing Committee on Disaster and Risk Reduction SCDRR and the nomination of Carlo Doglioni and HK.

CM commented that the GeoUnions strikes her as an informal group in terms of its officer appointment and decision-making processes, and suggested pushing to make it operate in a democratic way. To have more say in GeoUnions, more IUGS representatives not only limited to the President such as the General Secretary and the Vice President are encouraged to attend GeoUnions meetings.

JL pointed out that by participating in Inter-Union Geosciences, IUGS should push for some substantial results rather than just attending meetings. Through his talk with

IUGG President and Secretary General, he believed the collaboration between IUGG and IUGS can make quite a lot of progress.

Action: The EC to work out a process to nominate people for external committees.

Renewal of the MoU with China for hosting the IUGS Secretariat

JL signed the Memorandum of Understanding (MoU) with Dr. Zhong Ziran, Vice Minister for Geological Survey, Ministry of Natural Resources of China and President of China Geological Survey (CGS), for hosting the IUGS Secretariat in China from 2021 to 2028 through a virtual signing ceremony on 17 December 2020. Vice President Prof. Hassina Mouri was also present at the event. The Secretariat will continue to be hosted within the premises of the Chinese Academy of Geological Sciences (CAGS) under CGS.

4.b. Secretary General's Report

Extraordinary Session of the IUGS-IGC Council Virtual Meeting

Stan Finney (SF) reviewed the virtual meeting of the Extraordinary Session of the IUGS-IGC Council and regarded it a great success. SF initiated, planned, organized, and managed that Extraordinary Session, which was the first large virtual meeting of the IUGS. The registration of 182 delegates from 55 adhering members and an additional 85 guests and observers was most significant given the 20-hour span of time zones represented by participants. The use of the ElectionRunner app was successful, all voting was completed flawlessly, and all critical IUGS business was completed.

Internal matters

Since the closing of the Extraordinary Session of the IUGS-IGC Council, SF worked with the Executive Committee and the Secretariat to schedule the 2021 Annual Meeting of the Executive Committee and to send out the announcement of the meeting and calls for annual reports and budget requests to IUGS commissions, task groups, initiatives, and joint programs and to IUGS Adhering Members and Affiliated Organizations. He provided advice on preparation of budget requests to those groups requesting it, particularly the newly restructured Commission on Geoheritage and the new Task Group on Igneous Rocks.

Other work included the following:

- Managed the vote on the GSSP proposal for the Kimmeridgian Stage forwarded to the EC by the Commission on Stratigraphy.

- Coordinated with the Secretariat to compile by country the leaders and voting members of all IUGS constituent groups, and will distribute the compilation soon to all Adhering Members.
- Received and acknowledged messages of concern from those delegates to the cancelled 36th IGC who still had concerns with reimbursements.
- Sent ARC reports on CGGB and CGI to *Episodes* for publication.
- Requested biographies and photos from new members of the EC and sent them to *Episodes* for publication in the next available issue.
- Moved forward to completion the signing of the MoU for the 37th IGC and the MoU for the Permanent Secretariat.
- Participated in first meeting (virtual) of the executive of the restructured Commission on Geoheritage and its subcommissions, and helped to resolve some serious problems.
- Following this EC meeting, SF will inform all IUGS Commissions, Task Groups, Initiatives, and Joint Programs of their budget allocations for 2021 and of evaluations of their annual reports by the EC. Those Affiliated Organizations with funding requests will also be informed of their allocations. SF will also acknowledge receipt of annual reports from all other Affiliated Organizations and all Adhering Members.
- In March 2021, SF will coordinate with the Secretariat to prepare the IUGS Annual Report for 2020.

Comments and Discussions

JL pointed out that the List of Participants by Country is incomplete and seemed dominated by the officers from ICS. SF responded that the information submitted by the constituent groups needs improvement and he will expand the list.

In regards to the decline of fifteen active IUGS members in the last eight years, SF pointed out that it has been a long-term issue for IUGS to have a large number of inactive members, and the previous EC has been continuously working on it. One prominent factor contributing to the problem is that IUGS lost contact with some countries which have a very small geoscience communities and no sustaining national committees.

JM commented that this relates to how IUGS wants to encourage involvement from the member country delegations, and gave Ireland as an example: the Geological Survey of Ireland (GSI) might be upset since it pays for the membership fee and submitted the annual report, but not represented in the list. SF pointed out that it's on country-by-country basis. The list might present the organizations that fund the membership, instead of the organizations that host the delegation, and vice versa. SF explained by taking the U.S as an example that the organization which provides funding, the organization which hosts the delegation, and the national committee might be three separate groups, and that's why putting together such a list is

complicated. JL suggested SF work together with JM to update the list on the particular cases of Ireland and the UK.

JM stressed that geological surveys are key allies of IUGS and IUGS should get their people more involved. JL suggested the EC work together to enlarge the list and make it more comprehensive with emphasis on the people from geological surveys. SF pointed out it needs a person to take on the task and make all the communication.

HM commented it's important for IUGS to put in place a strategic plan to solve this problem.

Qiuming CHENG (QC) responded that the problem is shared by many other geo unions, and suggests taking the following measures to improve the situation: enhance communication with the low-level and inactive members by holding EC and Bureau meetings in their countries; create big scientific programs such as DDE to involve more member countries; use the year of IGC to attract new members and make pending members to active ones.

4.c. Treasurer's Report

Italian Reserve

Hiroshi KITAZATO (HK) started by introducing the Budgetary Structure of IUGS with its income and expense items. In September 2020, all the Italian Reserve Fund of EUR 756,615.85 was transferred to Japan, and became EUR 717,578.28 after the deduction of bank charge. The reserved portion is stored in both USD and EUR accounts as a "reserved part". The amounts are USD 605,060.00 and EUR 217,578.28, respectively.

Total Balance

As of December 31st, 2020, the total balance is USD 1,720,138.81, which also includes Hutchison Award, Russian Award and IUGS Award (USD 61,002.52).

Income and Expense in 2020

During the period of January 1st, 2020 to December 31st, 2020, IUGS income and expense are USD 553,016.44 and USD 323,610.24 respectively, and the net income is USD 229,406.20. The USD 493,002.01 membership fees contribute to the major part of the income. The expense is little compared to the year 2019, because a lot of projects and conferences were cancelled due to the COVID-19 pandemic.

UNESCO-IGCP

20 IGCP Projects were planned to be funded in 2020. Due to the COVID-19 Pandemic, the funding of 13 projects will be carried over to later years. Out of the remaining 7 projects, USD 6,000 for 1 project was financed by UNESCO Fund, and USD 28,555.53 for 6 projects were by IUGS Fund.

Membership Status and Fees

There are 122 members in total with 66 Active (7 pending) and 56 Inactive. For the alteration of status, 2 countries turned the status from Inactive to Active, 3 countries from Pending to Active, 5 countries from Active to Pending, and 1 country from Pending to Inactive. 25 countries have no contact point. 5 countries and region are restricted by US Office of Foreign Assets Control. Due to 1.4% inflation of US CPI rate, the unit fee for 2021 is USD 648*1.014=USD 657.

Auditing

A moderate level of auditing has been carried out by a Japanese auditor year by year. Income and expense records were thoroughly examined during the year 2020, and turned out to have treated perfectly.

Financial Losses in relation to the 36th IGC Cancellation

Due to the fact that very few reimbursements are made by the 36th IGC LOC, the financial losses (visa, airfare, accommodation, registration fee, booth fee) of IUGS (IUGS Awardees, Hutchison Awardees, Affiliated Organizations, Adhering Organizations, Commission Chairs, EC Members, IUGS) amount to USD 315,705.49. The potential financial losses (booth fee, capitation fee) amount to USD 133,984.00 in minimum and USD 217,964 in maximum.

Announcements

IUGS Treasure Office will be relocated from TUMSAT to Waseda University on April 1st, 2021, Bank Account address will be changed accordingly.

HK's affiliation will be changed as follows: Tokyo University of Marine Science and Technology (Tokyo Satellite Office, Center for Hadal Research, Danish National Science Foundation) & Department of Earth Sciences, Waseda University. HK will step down from an advisor position of JAMSTEC on March 31st, 2021.

Comments and Discussions

CM commented that the financial loss in relation to the 36th IGC is very large in proportion to IUGS assets, and in particular, the loss of Hutchison Award. SF explained the situation: with free registration, each person is funded USD 2000 covering their airfares, visas and hotel accommodations, and it's difficult to regain

the money. It's agreed that the unspent money can stay with the young scientists for other academic activities, and by doing so, encourage them to support IUGS in the future.

With regard to the potential capitation fee of the 36th IGC, SF added that the capitation of the 35th IGC held in South Africa (which is not a large IGS in terms of attendants) is USD150, 000. SF believed that the capitation fee of the 36th IGC might have been significantly more.

With regard to the unspent fund for each IUGS constituent group in 2020, HK clarified it will be carried over to 2021. The constituent group will have their requested budget in 2021 subtract the carry-over, and ask for the difference. QC pointed out that DDE is an exceptional case. DDE did make expenses in 2020, but without a bank account then, it couldn't receive IUGS budget. The budget allocation will be discussed in detail in later part.

ACTION: JL to contact the 36th IGC LOC about the reimbursements of booth fees and exhibition fees.

ACTION: SF and HK to look over the financial loss formation of the Hutchison Awardees individually, make a list and circulate it to everyone to make up for those who did lose through non-reimbursements.

5. Report from the Publications Committee (PC)

SF gave a quick summary by reviewing the history and personnel turn-over of the Publication Committee as a start. During the past four years, the Committee has gone from having everything collapsed to now a wonderful team of people working together with good coordination among the Website, Social Media, E-Bulletin, and Episodes. The achievements owe to those who step forward and take the workload. In two years, another person from the EC will have to take on the work.

Membership of the Publications Committee during 2020:

The Publications Committee consists of:

- Chair – Prof Dolores Pereira
- Prof. Stanley J Finney – IUGS Secretary General
- Mr. Giuseppe di Capua – Webmaster
- Dr. GurmeetKaur – member responsible for social media
- Prof. Jin-Yong Lee – Editor of Episodes
- Dr. Heejung Kim – Managing editor of Episodes

- Dr Silvia Peppoloni (ended in September 2020) & Prof. Claudia Mora (since October 2020) –

eBulletin responsible:

The Journal of Episodes

The MOU between Episodes and IUGS was renewed in 2020. The most important updates to the MoU are modification of ambiguous expressions and important additions such as peer reviewing. All publications submitted to EM system of Episodes will be reviewed.

In 2020, 129 manuscripts were submitted through the EM system and 76 manuscripts were published. Two Special Issues were published about Geodynamic Evolution of the Indian Subcontinent. The time for decision after first review decreased about two weeks (48 days in 2019 to 35 days in 2020). Rejection rate was higher than 30%, and more when the manuscript went through the iThenticate website.

The order of importance in thematic submissions was: Economic Geology (15%) > Geochemistry; Geochemistry - Aqueous; Mineralogy (11%) > Engineering Geology; Geoheritage / Geophysics (8%) > Archaeological Geology; Petrology – Sedimentary / Geodynamics; Geophysics / Geomorphology (5%). The order of submissions by country is: India (15%) > China (11%) > Italy (6%) > Brazil, Iran, Pakistan, Spain > South Korea, Poland > Russia.

It has been providing e-TOC services since September 2020 as well as online-first update information mail services.

The cumulative number of visitors to the Episodes website is 81,714 in 2020, and the monthly average is 6,809. There is a slight increase compared to last year. The country order by visitors is as follows: the United States (Maximum 3,672), Canada, India, China, South Korea and United Kingdom, a similar trend as in 2019.

IUGS social media

IUGS Social media platforms include Facebook, Twitter and LinkedIn, and they report on relevant information and activities of the various IUGS commissions, Subcommissions, joint programs, task groups and initiatives. The IUGS website, e-Bulletin, together with the Journal of Episodes are also promoted through social media through web links.

The year 2020 saw a surge of posts pertaining to the 36th IGC, including information about cancellation due to COVID-19. On average, 3-4 posts are done every week and the total Facebook followers number more than 7,500.

The close coordination and cooperation amongst the PC members has been instrumental in the smooth functioning of the IUGS social media platforms.

IUGS website

The webmaster's job focused on maintaining efficient running of the new website of the IUGS (<https://www.iugs.org>, published in December 2019), creating new pages on the basis of contents progressively available during 2020, and updating the existing pages. In particular, new pages were created under the section "Activities" on "Gender Equality in Science" and "UNESCO Lecture Series". The IUGS organization chart was fully updated after elections of the new Executive Committee and officers in November, 2020.

Since March 2020, due to the shutdown of the International Commission on Stratigraphy (ICS) website, the webmaster supported the ICS by creating a page about the International Chronostratigraphic Chart and another one on the Global Stratotype Section and Point (GSSP), and hosted them on the IUGS website.

Due to the COVID-19 pandemic, the events already included in the IUGS calendar for 2020 were subjected to a lot of changes. The webmaster did all the amendments accordingly.

In 2020, more than 29,200 visitors from 176 countries accessed the website and more than 31,750 visits, with an average value of 80 visitors/day, 2.3 pages/visit, 1:41 minutes/visit. Visitors reach the website mainly from google.com or direct access.

The eBulletin

The eBulletin represents the quickest instrument to disseminate news about IUGS initiatives, activities, achievements, events or publications. All IUGS Commissions, Task Groups, Initiatives, IGCP projects and Adhering Bodies are invited to provide a steady flow of material, consisting of concise texts accompanied by few illustrations. Science reports or papers are excluded.

The eBulletin is regularly distributed to more than 16,000 recipients every month.

Geological Society of London

Four books from IUGS activities were published by the Geological Society of London (GSL) as Special Publications. More books are in final production and others at different stages. Some of them have online papers first.

Downloading data for the articles published in these books, available at the web page of GSL Special Publications, are very positive. The chair of the PC is in permanent contact with GSL editorial manager to keep updated and promote IUGS books.

Comments and Discussions

With regard to the IUGS website, JL stressed that the website plays an instrumental role in the branding of IUGS, and there should be a strategic investment to improve the website; JM pointed out that the website design needs to be more visually and certain information (e.g. the wording of "What is IUGS") needs to be updated; HM commented that the main problem of the website is the presentation of the information (e.g. the list of the membership is better to be put in a table). The design needs to be more visible and appealing. SF added that the webmaster is willing to make changes and add stuff, but it takes some people contributing actions to provide the detailed information.

ACTION: JM and HM to work together with the webmaster to improve the IUGS Website.

6. Discussion of committees to renew and establish

Finance Committee

JL pointed out that as long as things haven't changed significantly since the Finance Committee (FC) Report was finished at the Extraordinary Session of the IUGS-IGC Council in October, 2020, there is no need to recreate a FC at present. The questions come down to whether we should keep the FC and how to spend IUGS reserves.

SF expressed his concern that the IUGS constituent groups have long been totally under-funded, and a study done by the IUGS Secretary General in 2012 recognized this. Some constituent groups managed to leverage the little money to have much work done.

Ludwig STROINK (LS) asked whether it's possible to increase IUGS share on IGCP programs, SF responded that IUGS share has been fine and it's okay to keep it the same by explaining the situation: UNESCO was going to take away with IGCP, Roland Oberhaensli helped to save it by pulling a lot of money out various sources to

keep it going, and thus IUGS came back on board. IUGS puts up together USD 60,000, UNESCO puts up together USD40,000, China gives USD 20,000, and South Korea gives a considerable amount (around USD 20,000).

Claudia MORA (CM) strongly supported greater expenditure such as 20%-30% of the reserve over a number of years and suggested that, instead of spending more on extra projects, IUGS should increase support for the standing commissions and groups which touch more people across all the countries.

JM pointed out that how to spend the reserves should be put into a broader context of the strategic plan of IUGS as to how to increase the visibility and increase contact with the under-represented member countries. JM shared that the International Association for Mathematical Geosciences (IAMG) makes good income with the interest of its reserve and use it on awards. HK responded that IUGS couldn't make any financial gain due to the very low interest rate in Japan.

JL noted an urgent task is to decide whether to buy a service platform for the web-based meeting that marks the IUGS 60th Anniversary.

JL concluded that FC will be kept as it is and a strategic plan for how to spend and draw on the reserves will be discussed on the 3rd day.

Strategic Implementation

Will be discussed on the 3rd day.

Branding and visibility

HM commented that the priority is to improve the IUGS website to make it more attractive with more relevant information, and the website should be as an archive and banner of IUGS. To realize this task, some budget saved in 2020 due to the COVID-19 should be used for this purpose.

Will be discussed further on the 3rd day.

7. ARC Reports: formation of ARCs for Episodes

CM reported on the progress. She is setting up the review team, which consists of the Chair, an IUGS member, another EC member, and an external member. The main task is to specifically address the strength and weaknesses of the group to find the most effective ways for the group to improve to the greatest benefit of IUGS. She plans to find a common location to do the review not virtually, and have face-to-face presentations and discussions for about two and half days.

SF stressed out that ARC Reports are very useful for advice to the successful groups to acknowledge how successful, or if necessary, to point out their problems early

enough for them to be addressed. When it is necessary to dissolve a group, the ARC Reports as the basis are very important.

JM volunteered to join the review team and recommended Erick Grunsky (based in Ottawa, Canada, has been an editor for several journals with very good editorial experience) as an external member. JL offered to get involved to some point in this review and is willing to help if necessary. CM will share the processing information with JL.

8. Review of Annual Reports/Budget Requests from IUGS Commissions

8.a. Stratigraphy (ICS)

CM commented that ICS, including its 17 Subcommission, is one of the most productive Commissions of IUGS with specific long-term and yearly goals. ICS approved 4 GSSPs in the year of 2020. The 2020 version of ICS Chronostratigraphic Chart was posted on the ICS website and a special version was prepared for circulation to all participants at the IGC in Delhi. ICS also undertook the IUGS Special Project and approved 6 proposals submitted to the Special Project. The budget request of ICS for 2021 is \$71,650, including the \$28,261 carryover for the year of 2020.

SF added that ICS also generated some additional grants from other sources before. SF noted that the limited fund of IUGS to ICS has leveraged a huge amount of research grants and contributions from scientists working on the GSSPs. CM added that all the other IUGS Constituent Groups have also leveraged great financial and in-kind contributions from participating organizations and scientists.

CM noted that there are some inconsistencies about the financial statements in the reports of ICS and DDE.

JL commented on the collaborations between the IUGS commissions and data-driven geosciences and would like to encourage the strong links and interactions between ICS and DDE. JL asked the annual report to acknowledge the positive relationship between ICS and DDE.

CQ introduced DDE has the funds to support joint projects with the DDE founding members, including ICS, CGI, IAMG, CGMW and Geological Survey of China. DDE has developed 5 joint projects in the year of 2021 with the funding of both DDE and the collaborative organizations. DDE allocated \$50,000 to support each project.

SF expressed concerns about the relationship between the ICS Geodiversity Database and DDE, and the unclear accounting information of ICS and DDE about the joint project.

JM suggested that a section of the annual reports could be added to spell out the connections with DDE - the new IUGS big science program, and clarification should be made clear about the financial overlaps between ICS and DDE in order for IUGS to check whether there is double funding.

HK raised the question about how the DDE can be evaluated, and suggested that IUGS should keep a balance between the fundamental geoscience and data-driven geoscience within the IUGS community.

JL commented that coordination and improvements could be made about the data-driven geosciences, and further discussions are needed for data-driven geosciences. JL concluded that IUGS EC is supportive of the funding request of ICS and would like to ask for clarity concerning the financial investment particularly from DDE so as to avoid double funding for the same type of work.

The EC approved the budget request of \$71,650, with the \$28,261 carryover for the year of 2020 and the allocation of \$43,389 for the year of 2021.

8.b. Education, Training and Technology Transfer (COGE)

LS commented that the COGE annual report is excellent with very detailed information on objectives, current structure, organizations, products and achievements in 2019/2020. The report is clearly structured according to the five main groups of geoscience educators. COGE applies to use the remaining fund of 2020 for training of three Field Officers, who are already invited from Chile, Malaysia and Togo. It has strong collaboration with EGU. The budget request of COGE for 2021 is \$9,479.

JM confirmed COGE's excellent collaboration with EGU, which is important for IUGS, and raised the question whether the EC should give assurance to COGE on the funding over a number of years since it is difficult to train people on the yearly funding basis. COGE provided the 4-year budget projection in the annual report.

JL commented that the IUGS EC is very supportive of the work of COGE and notes the request for longer-term security of funding. SF commented that it is a worthwhile project and does need a sense of longer-term commitment.

LS suggested that approval of budgets in the coming years shall be based on more detailed reports on the success of the Field Officer Initiative, and the budget shall be approved on a yearly basis.

HK supported the suggestion of the budget allocation on a yearly basis and said that IUGS should evaluate the activities of the IUGS groups on a yearly basis before

deciding on the budget because the IUGS budget mainly comes from yearly-based membership fees.

JL concluded that the IUGS was committed to the understanding that longer term funding is important for educational training, and that EC has taken note of the budget statement for the years 2022 - 2024, but will make the final allocation on an annual basis after the submission of the respective annual report.

The EC approved the allocation of 9,479 for the year of 2021, in addition to the \$745.69 carryover for the year of 2020.

8.c. Management and Application of Geoscience Information (CGI)

HK commented that CGI is a very active Commission. CGI has financial support from multiple organizations. CGI Council grants include (1) CGI docker containers to more easily roll-out and install geoscience data model installations and (2) multi-lingual vocabulary implementation and github hosting of vocabulary services. CGI has collaborations with YES, CODATA, OneGeology and DDE. CGI has regional activities and working groups, which should be the most fundamental bottom-up parts of CGI. CGI should make balances between big issues and local and small but diverse issues. The budget request of CGI for 2021 is \$10,000 to enable the full delivery of interoperability projects supported by two CGI Council grants as agreed at the November Council meeting and the CGI-YES Award of the Competition on CGI-IUGS Standards for Geoscience Data, and to support CGI activities as the commission for geoscience information of IUGS.

The EC approved the allocation of \$10,000 for the year of 2021.

8.d. History of Geological Sciences (INHIGEO)

HM commented that the annual report is well written. The budget request of INHIGEO for 2021 is 5,950 EUR.

JL commented that the EC would like to encourage the Commission to focus on early career scientists and activities.

The EC approved the allocation of \$2,000 for the year of 2021 to support its activities in relation to early career scientists.

8.e. Tectonics and Structural Geology (TecTask)

CM introduced that a recent ARC review was completed about TecTask. The recommendation of the ARC review was to transform from the IUGS Commission to a professional society. The annual report shows that the Commission is not quite

following the ARC recommendation. The budget request of TecTask for 2021 is 10,170 EUR.

JM noted that TecTask has strong presence at the 36th IGC, which shows that there is already an established community for the Commission to form an international association.

The EC encouraged TecTask to follow the ARC recommendation to form an International Association for Structural Geology and Tectonics (IASGT) as soon as possible. The EC decided not to fund TecTask as a Commission but agreed to fund its transition planning.

The EC approved the allocation of 3,000 EUR for the year of 2021 to fund its related activities concerning transition planning, including:

1,000 EUR: Support to the organization of the 23rd International Conference on Deformation Mechanisms, Rheology and Tectonics (DRT-2021) in Catania (Italy)

2,000 EUR: Funds to support the transition from an IUGS commission to form an International Association for Structural Geology and Tectonics (IASGT).

8.f. Geoheritage (ICG)

SP commented that ICG has achieved tangible results under the new leadership. The Commission has made efforts to increase the impact and visibility of IUGS in geoheritage. Various initiatives and activities have been launched and conducted by the Sub-commission on Sites and Collections. SP encouraged the Sub-commission on Heritage Stone to add more details about its publications. The websites of the two Sub-Commissions have not been updated. The budget request of ICG for 2021 is \$13,200 to support the International Commission on Geoheritage webpage and travel expenses concerning geoheritage and geoparks meetings.

With the consideration that the ICG made a good start under the new leadership, the EC approved the budget request of \$10,000, with the \$5,500 carryover for the year of 2020 and the allocation of \$4,500 for the year of 2021.

8.g. Global Geochemical Baselines (CGGB)

JL introduced that the Global Geochemical Baselines (CGGB) has been focusing on producing base-level data, global geochemical models and standards. CGGB has continued its efforts in producing basic standards and other fundamental products even at the difficult time when the pandemic is still prevailing. With outstanding balance in CGGB's bank account of \$4583.13 at the end of 2020, the budget requested by CGMW for 2021 and first quarter of 2022 is \$6,000. Funding from IUGS

(including balance from 2020 and budget request for 2021) will be used for organization of the autumn annual joint business meeting of the Commission and the EuroGeoSurveys Geochemical Expert Group and attend other international conferences.

The EC approved the budget request of \$8,583.13, with the \$4583.13 carryover for the year of 2020 and the allocation of \$4,000 for the year of 2021.

9. Review of Annual Reports/Budget Requests from IUGS Task Groups, Joint Programs

9.a. Task Group on Igneous Rocks

HM mentioned that Task Group on Igneous Rocks (TGIR) didn't ask funding for 2021 as most of the activities will be conducted virtually. JM pointed out that TGIR could provide a line of activities in 2021, which may be a reference for EC members to determine the 2022 budget for TGIR. CM mentioned that more details of the work plan of TGIR can be found in the proposal of TGIR to be a task group of IUGS. SF reviewed that TGIR was electronically approved by the previous EC members in last October and he would distribute the proposal, which includes strategic plan of TGIR to EC members.

ACTION: SF to distribute the TGIR proposal to EC members.

9.b. Task Group on Isotope Geology (TGIG)

SP mentioned that a funding of \$1 as a formality was requested by Task Group on Isotope Geology (TGIG) for 2021 as all meetings will be virtual in the near future, especially considering the advanced age of several of the six members. QC pointed out that as isotope geology is a fast-growing and increasingly important research field and that TGIG is significant to scientific activities of IUGS. HK suggested IUGS push forward connection with TGIG. JM advised that IUGS may encourage young scientists to participate in TGIG considering the advanced age of six members in TGIG. SF will write to TGIG to express IUGS's willing to provide assistance in involving more young scientists to TGIG.

The EC approved to allocate \$1 to TGIG for 2021 as requested.

ACTION: SF to write to TGIG to express IUGS's willing to encourage more young scientists to participate in TGIG.

9.c. Initiative on Forensic Geology (IFG)

HK introduced the aim, objectives and main approaches of Initiative on Forensic

Geology (IFG) and informed that 2021 is the 10th anniversary of IFG. HK mentioned that all the events of IFG in 2021 will cost \$17,750, but with carry-over money from previous years, IFG requested IUGS to add funding of \$7,165 for 2021. HK commented that IFG activities are quite visible to the public and their financial structures are transparent.

The EC approved the budget request of \$17,750 to IFG, including \$10,584 carryover for the year of 2020 and the allocation of \$7,165 for the year of 2021.

9.d. International Lithosphere Program (ILP)

JL affirmed International Lithosphere Program (ILP) as a cooperative success between IUGS and International Union of Geodesy and Geophysics (IUGG) and the achievements in 2020. As usual, ILP asked an IUGS funding of \$15,000 for 2021. QC pointed out that the successful implementation of ILP has effectively enhanced the profiles of both IUGS and IUGG.

The EC approved to allocate \$15,000 to ILP for 2021 as requested.

JL asked whether Kristine Asch, the past Vice-President of IUGS (2016-2020) who is now representing IUGS as ILP Executive Member wants to continue her representation and whether the Statutes and Bylaws of ILP permits this. LS responded that he will contact ILP to check whether the Statutes and Bylaws of ILP permits ex-official of IUGS to continue to serve as an Executive member of ILP.

ACTION: LS to check whether the Statutes and Bylaws of ILP permits ex-official of IUGS to continue his/her IUGS representation in ILP.

10. GEOMORE- proposed Initiative

QC introduced that Geoscientific Mapping of Ocean Realm (GEOMORE) was initiated by Kristine Asch, the past IUGS Vice-President (2016-2020) and HK, the IUGS Treasurer. To avoid conflicts of interest, HK will not participate in GEOMORE. GEOMORE has started to build a core team of scientists working in marine geosciences, mapping experts and geoscience information to drive the topics of marine data, standards and marine methodologies. QC presented the major achievements GEOMORE has made in 2020 and the plan for 2021. IUGS funding of \$3,000 is requested by GEOMORE for the staff cost of GEOMORE website.

SP suggested GEOMORE present more details on the developing plan of the GEOMORE website. JL will discuss with Kristine Asch so as to know more about the plan and the building process of the database-driven geoscience platform and clarify several key concepts, such as the linking and usage of databases, standards and methodologies.

The EC approved no funding to GEOMORE for the year of 2021.

ACTION: JL to contact Kristine Asch for more details on the developing process and direction of the GEOMORE internet platform.

Before starting the Agenda of Day 3, LS presented parts of the Terms of Reference of ILP concerning whether IUGS ex-official can continue to represent IUGS in ILP as follows:

The ILP is administered by a Bureau of five members. These include the President and the Secretary General, who are named by agreement between IUGG and IUGS; one member appointed by IUGG; one member appointed by IUGS; and one member appointed by National Members. At least one Bureau member will normally represent a developing country. The Past President may attend meetings with voice but without vote.

Regular Bureau members may be reappointed once, but with the provision that no more than 3 of the 5 members may be in their second period of service.

QC explained that when Kristine Asch was about to conclude her 4-year representation in ILP, ILP contacted him to check if IUGS would appoint someone else to replace Kristine and as the last EC was about to fulfill its term and the new EC members were to be elected, QC recommended Kristine to continue her representation in ILP before the new EC assume duty. JL advised to check with Kristine Asch whether she still wants to be the IUGS representative in ILP.

ACTION: JL to ask Kristine Asch whether she wants to continue her IUGS representation in ILP.

11. Review of Annual Reports/Budget Requests from IUGS large projects

11.a. DDE Initiative

JL reviewed the missions, research directions and organizational structures of DDE and affirmed the progress that DDE has made since it was initiated. JL suggested a better gender balance in the DDE leadership. DDE requested funding of 20,000 USD from IUGS to support DDE Working and Task Groups research activities, operation of DDE Secretariat, workshop/conferences and travel, as well as unforeseen expense. JL suggested further promoting the interaction and link between IUGS and DDE.

CM mentioned that it is significant to have a more detailed financial report of DDE and emphasized the importance of gender balance in DDE leadership, specifically the DDE Science Committee. CM pointed out that the funding model of DDE and the

ownerships of DDE products need to be more specified. CM suggested relocating the unforeseen expense \$1,000 to academic/scientific activities. CM also pointed out the improper description on University of Texas's involvement in DDE in the DDE Annual Report.

As a member of DDE Governing Council and representative of IAMG, the founding member of DDE, JM responded that although Chinese government is providing strong financial support to DDE, with a long-term perspective and as an international scientific program, DDE is now developing a funding mechanism involving DDE members, IUGS and other organizations globally. As for the gender balance in DDE leadership, JM pointed out that the pursuit of gender balance and diversity in DDE leadership is sometimes subject to the own decisions made by the candidates' organizations. JM also pointed out an error in the DDE annual report, which mentioned that IAMG will co-sponsor with DDE the Marginal Sea Project \$50,000 per year with the funding ratio 1:1 and JM confirmed that this funding from IAMG is not going to happen.

QC replied that currently, the Chinese local government provides major financial support to DDE, which is \$300,000 per year and the membership fee mechanism is still under discussion and needs to be finalized by the DDE Governing Council. QC agreed that more efforts should be made to improve the composition of DDE leadership, especially DDE Science Committee in future. QC explained that DDE is now developing an intellectual property right policy, which needs to be reviewed and revised by professionals and finalized by DDE Governing Council. QC emphasized that one purpose of initiating DDE is to promote the interaction and connection between IUGS groups, including Scientific Commissions, Adhering Organizations and Affiliated Organizations etc.

SF mentioned that it is necessary to clarify the concept of and standard for IUGS Big Science Program and include them into the IUGS Statutes and Bylaws. HK suggested that DDE present a financial report which specifies funding status of DDE, including detailed expenses and budget request. QC replied that because DDE was not able to open a bank account at its primary stage, the expenses in 2020 were not detailed in the DDE financial report and this will be improved this year as DDE has its own bank account now.

The EC approved to allocate \$20,000 to DDE for the year of 2021.

12. Review of Annual Reports/Budget Requests from UNESCO-IGCP

LS briefed the 2020 activities of IGCP, including: (1) The appointment of three new members of IGCP Council, including HM for Geodynamics. The new Council has started its activities in November 2020. (2) The renewal of 50 members in the IGCP Scientific Board. (3) IGCP Council Meeting in March 2020 has evaluated 26 new IGCP

project applications and 18 of them are approved. Currently, there are totally 43 active IGCP projects, including 25 ongoing projects and 18 new projects. Among the 43 active projects, 36 projects receive funding from IUGS and UNESCO.

	2017	2018	2019	2020
Council Meeting date	February 2017	February 2018	February 2019	March 2020 (online)
Number of IGCP annual reports (of previous year) evaluated	26	21	28	31
Number of new IGCP project proposals (submitted previous year) evaluated	9	13	21	26
New projects approved and started	4	7	9	18
Number of IGCP active projects	24	27	31	43
Number of IGCP projects approved to receive funding from UNESCO and IUGS	21	22	26	36
Budget allocated to eligible projects	\$116,500	\$140,000	\$180,500	Total: \$225,864 Contracted in 2020: \$121,864 (IUGS contribution: \$59,031) Agreed to be contracted in 2021: \$104,000
Budget spent/budget transferred to next year due to COVID19 pandemic	Same as above	Same as above	Same as above	Budget spent in 2020: \$34,346 2020 Budget which will be carried over to 2021: \$191,518+ new projects (requested IUGS contribution: \$60,000)

IGCP projects and budget data between 2017-2020

Approved funding for 36 projects: **\$225,864** (IUGS+UNESCO)
 Contracted in 2020: **\$121,864** (20 projects)

	(IUGS contribution: 59,031)
Request to transfer funds to 2021:	\$104,000 (16 projects)
IUGS-Funding 2020 in total:	\$59,031
Spent:	\$34,346
Request to transfer to 2021:	\$24,685

IGCP Funding Request:

- to re-allocate \$24,685 (unspent amount in 2020) in 2021 for the IGCP projects who did not request their funds (see Annex 2) due to COVID19 pandemic.

- to allocate in total \$60,000 for new and ongoing IGCP projects (including \$24,685 which will be transferred from 2020) as IUGS contribution to IGCP projects in 2021. UNESCO Secretariat received 24 new project proposals and IGCP Council will announce new projects which will receive funding from IUGS and UNESCO early March 2021.

- to agree to transfer 2021 unspent funds to 2022 if IGCP projects won't be able to organize their events in 2021 due to ongoing pandemic.

New IGCP-Projects (2020/2021): By October 15th, 2020, UNESCO Secretariat received 24 new project proposals led by 143 project leaders from 58 countries. These new proposals are currently under review and the decision will be made in March 2021.

LS recommended IUGS to allocate funding as IGCP requested.

HK mentioned that in March 2020, UNESCO and IUGS allocated \$121,864 to financially support 20 projects, but due to COVID-19 pandemic, part of the funding was not spent, and IGCP Council and IUGS jointly agreed to transfer unspent 2020 IGCP projects funds to 2021. HK pointed out that the IGCP funds were provided for 7 projects (659, 661, 662, 667, 685, 689 and 692) and among them IUGS paid for 6 projects (\$28,555) and UNESCO paid for 1 project (\$6,000). HK clarified that IGCP Annual Report wrongly stated that funds for all the 7 projects are all from IUGS.

The EC approved to allocate \$60,000 for the year of 2021 and agreed IGCP to carryover the unspent funding from the year of 2020.

13. Summary of Annual Reports from Adhering Organizations

SF informed that about 30 adhering organizations had submitted their annual reports. SF enumerated 14 adhering members that have given detailed and valuable responses as follows.

Australia: the AAG (Association of Applied Geochemists) is a member organization of

the Australian Geoscience Council and through this to the National Committee of Earth Sciences. AAG members are involved in various international projects, including the IUGS Commission on Global Geochemical Baselines. There is significant dissatisfaction with the handling of the 36th IGC reimbursement matter, as has been conveyed to the Academy by members of the community. The matter has been noted in reports to the Academy's Executive Committee and we hope to see outstanding refunds processed and finalized swiftly in 2021.

Canada: IUGS may consider more regular communication with its adhering members to keep them in the loop on new initiatives and potential opportunities for collaboration/participation in IUGS activities. IUGS could also take advantage of online meeting platforms to more regularly engage with adhering organizations, with advance notice through a newsletter. The Canadian National Committee also struggled with the choices presented by the Nomination committee in terms of regional representation and gender representation. Some of the candidates had very weak bios that were not very informative of their strength against the positions. More time and effort needs to be invested to have a robust process where weak candidates are advised to strengthen their candidacy against a minimum standard or weeded out prior to vote. We would encourage each commission to continue to be active with webinars and similar means of communicating efficiently internationally. Canada successfully organized RFG in 2018 and therefore has the capacity to organize other conferences or thematic workshops (virtual or in-person) if that becomes a goal of IUGS. The various commissions' terms of memberships are not well known to us and seem obscure and parochial. The election of the members in advance of the executive council left little room for elections and seemed pre-ordained. It might be well organized and efficient, but it is hard to know. There may be a role in having nomination committees to each of the commissions, with criteria set out by the IUGS Executive council in concert with the Commissions.

Costa Rica: There are many countries in debt to IUGS monetary issues. A prospective for funding the poorest countries from third parties, as well as promotion for "brother" countries among the richest countries paying for the poorest ones, would enhance a wider participation into IUGS.

Estonia: the COVID 19 situation has drastically changed the means of interaction through web-based platforms that proved their usefulness in the most successful organization of the Extraordinary Session of the IUGS-IGC Council. Though these means cannot replace the personal contacts, web-based solutions could be developed and used more often in the future. On-line courses just started in cooperation with UNESCO dedicated to future of geology is a perfect example of the activities that could be undertaken by IUGS, namely organization of a series of web-seminars/courses on topics relevant to IUGS activities.

Italy: Involvement of the CNR-IUGS commission in the scientific and organizational

activities of the IUGS EC. I warmly suggest joining the efforts between IUGS and Geological Society of Italy (the biggest and the oldest society in Earth Sciences in Italy with more than 1500 members). IUGS could involve the Geological Society of Italy for a larger participation to the activities and groups. The theme of open access publication with a very low or no charge to authors should be addressed by IUGS especially for young researchers and researchers in developing countries.

Japan: Natural hazard, mineral resources and global climate changes are all strongly related to geological sciences. We expect that the IUGS EC should enhance our roles to the global communities.

Lithuania: The IGC must be in reality not in a virtual way.

New Zealand: Email minutes, or at least a summary, of regular EC meetings to all national delegates. The IUGS President and Secretary are commendably responsive to emails.

Poland: To improve interaction, it might be useful to involve/invite to the EC meetings (every year or every second year) national representatives from a country/region in which the EC is going to assemble. One day or half a day could be then dedicated just to presentation and discussion of problems given countries face or cope with and what international activities could be built up. Information about ongoing and planned activities of IUGS groups/commissions may be more widely advertised and disseminated.

Romania: At least one member of each NC to be included in every IUGS constituent group. The Romanian NC suggests that the leaders of the IUGS analyse the possibility that IUGS would take over the organization of the IGCs.

Slovenia: Greater interaction could be achieved through the introduction of project cooperation, which would be opened only for the IUGS members.

Spain: First, locate the people who are working with IUGS. We are not aware how many Spaniards are members of the different groups. More open requirements to belong to Committees. By now only is by recommendation of the Committee members.

U.K.: More timely and detailed reporting of the actions and development of IUGS groups, as well as transparency around how geoscientists are asked to participate or selected for leadership roles. Routine reporting of UK scientist participation in IUGS activities. Increased transparency in how people can become involved in groups and themes, including open calls for participation. Clear focus on diversity and representation in all activities. Open calls for participation with plain language description of the aims and resources provided to the activity. Transparent and

timely reporting of activities openly available from the IUGS website and individual group websites. We encourage the committee to fully embrace the letter and spirit of the resolutions approved by the council, in order to improve transparency and increase the impact and value of IUGS activities.

U.S.A: Established relationships with the reconstituted IUGS Commission on Geoheritage and its leader, Asier Hilario. USNC-IUGS Chair, David Mogk, is a contributor to the IGCP GLOBAL GEOSITE PROJECT. We expect that more U.S. scientists will participate in this Commission in the near future. Inclusion and diversity and geoethics considerations are crucial for the advancement of IUGS, and the U.S. stands ready to participate.

SF will be reporting back to those that have submitted the above mentioned suggestions in a positive way, appreciating their comments and explaining the issues with regard to participation, news and information.

14. Evaluation of annual reports of all Affiliated Organizations

14.a. AGID

JL stated that the Association of Geoscientists for International Development (AGID), a non-profit and non-governmental organization, was founded in 1974 by a small international group of geologists. Both JL and SP suggested that AGID be regenerated with younger scientists involved. AGID requests IUGS for a grant of US \$1,000.00 in 2021, so as to promote its activities in low-income countries and have a prominent role with good technical contribution for its Three Symposia under Theme 45, at the 36th IGC (2020) in New Delhi.

The EC approved no funding to AGID for 2021 and appointed SP to contact with AGID for future cooperation.

14.b. CGMW

CM informed that the Commission for the Geological Map of the World (CGMW) was an affiliated organization that had long been provided with 5,000 to 6,000 USD per year by IUGS. The budget request for 2021 will be used partly for the printing of key products, namely the Structural Map of the Caribbean and the Geological Map of South America and small amount will be dedicated of the coordination of the meeting for the booklet on the structure of the Caribbean region.

CGMW has been an active founding member of the DDE (Deep Digital Earth) project which was initiated in 2018 under the umbrella of the IUGS, and participated in the meeting in Beijing in 2019. It is fully involved in the DDE work with the President of the Geological Mapping Group (Manuel Pubellier) spearheading the WG on the next

digital map of the World at scale 1/5M. Last year, CGMW printed the Booklet of the geology of “the Indian Ocean and its margins” for the 36th IGC. SF added that CGMW has worked closely with ICS and that it had been a great success to share booth with CGMW in international meetings.

The EC approved CGMW’s request for 5,000 USD for the year 2021.

14.c. GfGD

HM introduced that Geology for Global Development (GfGD) was registered charity in England and Wales and its mission was to champion the role of geology in sustainable development, mobilising and reshaping the geology community to help deliver the UN Sustainable Development Goals (2015–2030). GfGD has provided an excellent annual report with detailed explanation on every part, especially the chief accomplishments in 2020.

GfGD’s carryover \$1400 in 2020 relates to events that should have happened in 2020, but that were postponed to 2021 (e.g., the next UN Forum on Science, Technology and Innovation for the Sustainable Development Goals, and the COP26 climate meeting in Glasgow, UK). Use of this funding is therefore deferred to 2021, and will be used as originally intended, to ‘ensure geoscience engagement at global policy forums, building on effective work and contacts in 2018–20’. Budget support from the IUGS in 2021 will help GfGD to expand some key activities increasing recognition of the role of geoscience in the UN Sustainable Development Goals. They request additional funding in 2021 of \$4100 (approximately equivalent to £3000 at current exchange rates).

The EC decided to allocate \$4000 to GfGD for the year 2021.

14.d. GSAf

LS informed that the Geological Society of Africa (GSAf) had submitted a sound report with clear structure including main aspects, goals, interaction with IUGS and other organizations, products and achievements and plans for 2021. The funds spent in 2020 have been reported, and the budget request of \$7,000 for 2021 has been justified in a comprehensive manner. LS recommended its request be approved and the issue on how IUGS could further support African colleagues and increase funding should be discussed further. HM asked LS to introduce the justification for its budget request.

The EC approved the budget request of \$7,000 and required a detailed annual report next year of how it has been spent.

14.e. IAPG

JM introduced that International Association for Promoting Geoethics (IAPG) and gave high praise to IAPG for its accomplishments on widening discussion and creating consciousness regarding problems of ethics applied to the geosciences, in particular on the ethical, social and cultural implications of geoscience knowledge, research, practice, education and communication, and its interaction with other international organizations and projects.

IAPG asked for a subvention of \$4,000 for 2021 from IUGS. The funds received from IUGS are used sparingly to support a wide international participation and involvement in the association and its activities of national sections, members and followers.

The EC approved IAPG's budget request of \$4,000 for the year 2021.

14.f. IAGOD

HK informed that International Association on the Genesis of Ore Deposits (IAGOD) aimed to catalyze the scientific cooperation, know-how exchange and capacity building between developed countries and economically less developed countries, especially involving students and young professionals. Its tasks are: to organize international symposia, work through commissions and working groups, and promote mutual interests among mining industry and academic community. IAGOD is one of the 12 founding organization of DDE. IAGOD requires \$5,000 for supporting and subsidizing participation of about 10 students and early career researchers to the On Site Workshop and Field Training in autumn 2021. HK suggested reducing by half because half of the budget was planned for organizers of the workshop.

The EC decided to allocate IAGOD \$2,000 for the year 2021 to support the travel of students.

14.g. ICL

QC stated that the International Consortium on Landslides (ICL) had submitted a clear report with goals related to overall IUGS scientific objectives. Its main objectives are: to promote research for the benefit of society and the environment; to integrate geosciences and technology within the appropriate cultural and social contexts in order to evaluate landslide risk in urban, rural and developing areas including cultural and natural heritage sites, as well as to contribute to the protection of the natural environment and sites of high societal value; to combine and coordinate international expertise in landslide risk assessment and mitigation studies; and to promote a global, multidisciplinary Program on landslides, the International Program on Landslides.

Last year ICL was allocated \$4000 from IUGS, which was used for the organization activities of the WLF5 including the editorial works of 6 full color volumes of books. IUGS is written as the supporting organization in all bulletins of WLF5. ICL request for 2021 is \$5000 because the Fifth World Landslide Forum will be organized as the hybrid conference on 2-6 November 2021 at Kyoto International Conference Center, Kyoto, Japan. ICL will invite many researchers, engineers, policymakers from developing countries as well as United Nation Organizations, and governments. \$5000 will be used to support travel fee of 5 speakers from developing countries for this important conference.

The EC decided to allocate \$5,000 to ICL for supporting the Fifth World Landslide Forum.

14.h. IGEO

SP introduced the chief products of the International Geoscience Education Organization (IGEO) in 2020, including the International Conference on Geoscience Education (GeoSciEd), the International Earth Science Olympiad (IESO), Educational Session/s during the International Geological Congress, International Syllabus on Earth Science Education and plan for accompanying textbook, Earth Learning Ideas, Teacher Training Workshops and public relations activities and communication strategies within the IGEO/IESO membership.

IGEO requested a \$5,000 budget allocation from IUGS for designing a platform for a virtual trip to Mars where students could test their earth system thinking skills. The budget request will cover the cost of the software developers and the cost of hosting the platform. The educational support will be provided on a voluntary basis by experts from IGEO and IESO.

The EC approved IGEO's budget request of \$5,000 and suggested that the IUGS logo be recognized easily on IESO products.

14.i. IMGA

DC informed that the International Medical Geology Association (IMGA) aims to facilitate interaction between geoscientists and biomedical/public health researchers in addressing human and animal health problems or benefits caused by geologic materials or geologic processes. During 2020, some activities, including webinars and symposiums, have been carried out in spite of the pandemic restrictions.

IMGA requested \$3,000 for the year 2021 to train community leaders, in order that they can disseminate in their communities knowledge related to the prevention of risks associated with exposure to materials and geological processes, particularly in low income countries.

The EC approved IMGA's request of \$3,000 for the year 2021.

14.j. IRCK

SF informed that the International Research Center on Karst under the Auspices of UNESCO (IRCK) asked to become a task group of IUGS two years ago and the EC recommended IRCK join the IUGS family as an affiliated organization. IRCK was approved as an IUGS affiliated organization last year. IRCK's Governing Board and Academic Committee are shown to be international. IRCK's chief products include its annual report, IGCP Newsletter, Carsologica Sinica, the Annual International Training Course since 2009, biennial meetings and publications.

This is the first time for IRCK to submit a budget request of \$3,000 to IUGS. Half of the allocation will be used to support 3 attendees from economically disadvantaged backgrounds to participate the Workshop on Matter Cycles in Karst Critical Zone and the other half will be used for supporting 3 students from economically disadvantaged backgrounds to participate the 13th International Training Course.

The EC approved IRCK's request of \$3,000 for the year 2021.

15. Discussions

JL suggested the agenda for Session 3 be postponed to the next virtual meeting at the end of March, focusing on budget-spent for the next year, strategic issues and ARC reviews, etc. JL asked LS to review all the strategies since 2012 that can be found on the IUGS website to come up with a process for the EC to develop a strategy.

ACTION: SF to draft allocation letters to the constituent bodies and affiliated organizations within a couple of weeks.

ACTION: SF to write a letter to all the EC members to reconfirm all the allocations decided on today's meeting.

ACTION: SF to circulate the list of all the Hutchinson Awardees and the exact budget number.

ACTION: JL to write a summary of important strategic issues.

HK recommended the EC decide on the allocation table. IUGS has already paid 12292 Euros to ISC and the allocation table for the year 2021 was explained by HK in details. JL proposed to leave the discussion on budget for auditing, treasurer's office, online sessions and the 60th anniversary celebration to the next meeting in late March. SF suggested the next EC meeting be held on 22nd and 23rd March, 2021. The EC

approved the Unit fee for membership fee to be raised by 1.4% (US CPI rate average of 2020), from \$648 to \$657. JL expressed his gratitude to the Secretariat for organization of the virtual EC meeting.

16. 37th IGC

DC made a report of the Organizing Committee for the 37th International Geological Congress. The inauguration ceremony of the Organizing Committee for the successful hosting of the IGC 2024 was held in Busan City Hall on 10th November, 2020. The 74th IUGS EC meeting was also held in Busan in January 2020. The Next Generation Geologist Conference and IGC 2024 Young Geologist Program were held online by the Geological Society of Korea from October 27 to 29, 2020. DC introduced the structure of the LOC of the IGC 2024 and the Executive Members of IGC 2024 Organizing Committee. The main work plan in 2021 includes opening of the new official website of 37th IGC, selecting official Professional Convection Organizers, setting-up detailed monthly progressively milestones of 'what to do' until the 37th IGC, overall design of the academic and social programs including scientific program and business meetings for a wide global audience, final design of domestic and overseas field excursion program, and domestic and international advertisement via social medias, geological journals and various academic meetings.

At last JL thanked all the participants for their hard work and information sharing. The next virtual meeting will be held on 22nd March, 2021.

17. Proposed budget for 2020/21

Following the EC Meeting on 22-24 February, SF informed the IUGS bodies of the 2021 budget allocations approved by the EC. JL communicated with DDE about its governance and how to build it to be an international program. JL will join the next DDE Governing Council Meeting for further discussions.

HK summarized the budget allocations for the IUGS Constituent Groups and Affiliated Organizations approved at the EC Meeting on 22-24 February. HK pointed out that after the EC meeting, the budget allocations of COGE and TecTask were changed to 8,684.00 USD and 4550 EUR (5,082.35 USD) based on the discussions among the EC Members and the responses from COGE and TecTask.

HK elaborated on the remaining budget allocations for contributions, Episodes, contingency, Hutchison Award, Argand, Harrison, and Young Science Prize, Secretariat expense, Russian Reserve, Special Funding Program, IGC special expense, IGC cancellation fee, IUGS associated event and the other expenses. The 2021 contributions to ISC have been already paid.

Allocation Table for 2021					
Activity	Activity Detail	2021	2021	2020	2020
		Budget	Request	Paid	Budget
		USD	USD	USD	USD
IGCP					
	UNESCO			6,000.00	65,250.00
	IUGS	60,000.00	60,000.00	28,555.53	60,000.00
Joint Programmes					
	ILP	15,000.00	15,000.00	15,000.00	15,000.00
	One Geology	6,166.16	6,278.98	5,592.00	5,685.00
IUGS Commissions					
	CGI	10,000.00	10,000.00	8,000.00	10,000.00
	COGE	8,684.00	9,479.00	7,400.00	7,400.00
	ICS	43,384.00	71,650.00	52,000.00	60,000.00
	INHIGEO	2,000.00	5,950.00	1,200.00	4,000.00
	TECTASK	5,082.35	12,323.99	800.00	6,000.00
	GeoHeritage	4,500.00	7,700.00	0.00	7,500.00
	CGGB	4,000.00	6,000.00	2,800.00	6,000.00
IUGS Task Groups					
	TGIG (Isotope Geochemistry)	1.00	1.00	1,500.00	1,500.00
	TGIR (Igneous rocks)	0.00	0.00		
Initiatives					
	NASIC→RFG	0.00	0.00	0.00	0.00
	Marine Scoping Study	3,000.00	3,000.00	0.00	8,000.00
	DDE	20,000.00	20,000.00	0.00	20,000.00
	Initiative on Forensic Geology	7,165.00	7,165.02	3,600.00	8,000.00
Committees					

	Finances Committee	8,000.00	8,000.00	0.00	8,000.00
	Nomination Committee	0.00	0.00	0.00	0.00
	Conference Committee	0.00	0.00	0.00	0.00
	Publication Committee	10,000.00	10,000.00	13,987.12	10,000.00
Affiliated					
Organisations	IAPG	4,000.00	4,000.00		4,000.00
	AGID	0.00	1,000.00	0.00	0.00
	IMGA	3,000.00	3,000.00	0.00	0.00
	CGMW	5,000.00	5,000.00	5,000.00	5,000.00
	GSAf	5,000.00	7,000.00	7,000.00	7,000.00
	ICL	5,000.00	5,000.00	4,000.00	4,000.00
	SGA	0.00	0.00	3,000.00	3,000.00
	IGEO	5,000.00	5,000.00	0.00	0.00
	IAGOD	2,000.00	5,000.00	0.00	0.00
	IAPG	4,000.00	4,000.00	4,000.00	4,000.00
	GfGD	4,000.00	4,100.00	4,000.00	4,000.00
	IRCK (Karst)	3,000.00	3,000.00	0.00	0.00
Contributions					
	ISC	15,255.92	14,892.41	14,717.89	13,700.00
Episodes					
	IUGS Contribution	28,000.00	28,000.00	28,000.00	28,000.00
	Additional IUGS Contribution	330.00	330.00	0.00	330.00
Contingency		10,000.00	10,000.00	0.00	10,000.00
Hutchison Award		20,000.00	20,000.00	18,000.00	17,000.00
Argand, Harrison, and YS Prize		15,000.00	15,000.00	0.00	15,000.00
Secretariat Expense		15,000.00	15,000.00	15,000.00	15,000.00

Russian Reserve		6,800.00	6,800.00	6,517.60	6,800.00
Special Funding Program		75,000.00	75,000.00	47,000.00	75,000.00
IGC Special Expense		0.00	0.00	9,297.95	70,000.00
IGC Cancellation Fee		0.00	0.00	6,973.30	0.00
IUGS associated Event		20,000.00	100,000.00	0.00	0.00
Other Expense					
	Routine Meetings	25,000.00	25,000.00	10,766.08	45,000.00
	Representative Scientific Meetings	10,000.00	10,000.00	0.00	5,000.00
	Exhibitions	10,000.00	10,000.00	0.00	10,000.00
	Annual Reports	2,000.00	2,000.00	0.00	2,000.00
	Website	1,000.00	1,000.00	0.00	1,000.00
	ARC	10,000.00	10,000.00	0.00	11,000.00
	Promotion Items	10,000.00	10,000.00	0.00	2,000.00
	Bank Charges	10,000.00	10,000.00	5,956.88	10,000.00
	Auditing	1,250.00	1,250.00	4,882.01	5,000.00
	Treasurer's Office	15,000.00	15,000.00	1,051.53	3,000.00
	Online session (Zoom)	5,000.00	5,000.00	3,145.90	0.00
	Exchange Loss	500.00	500.00	0.00	600.00
TOTAL AMOUNT		552,118.43	683,420.40	344,743.79	678,435.00

HK noted that the IUGS will not receive capitation fees from the 36th IGC, but the IUGS currently has the surplus to pay for the IUGS budget for 2021.

ACTION 18: SF to write to the Special Funding Programs and ask for their annual reports and expenditures, based on which the EC will decide on further financial support.

The EC agreed that no new Special Funding Program will be launched in 2021 due to the loss of capitation fees from the 36th IGC.

The EC agreed to reimburse the Hutchison Awardees for their financial losses from the 36th IGC.

ACTION 19: SF to contact the Hutchison Awardees individually asking for the receipts and documentations for reimbursements.

For the 2021 budget of ISC, 300 USD needs to be added for JL and SP joining ISC Standing Committee for Gender Equality in Science (SCGES).

For the 2021 budget of Promotion Items, 10,000 USD is approved. It's agreed that should there be any contingency in cases of the website improvement conducted by HM and JM and the management of virtual meeting by SF, the expenses could be covered by this budget.

For the 2021 budget of Treasurer' office, 15,000 USD is approved. The EC considers the budget request reasonable and to be an ongoing expense due to the heavy workload of the Treasure. It's discussed and agreed that the Bureau Members paying for their own expenses is an expectation rather than a requirement. Depending on the specific situations, IUGS could cover certain expenses for the smooth running of the Bureau. The EC reached a consensus that the provision for Bureau members to pay for their own expenses could be removed in future nominations.

ACTION 20: The Secretariat to investigate the license cost of ZOOM for virtual meetings to host 1000+ participants.

18. Discussion of actions and resolutions at the Extraordinary session of the IUGC IGC council

JL noted that the actions and resolutions at the Extraordinary session of the IUGS-IGC council are either done or in progress.

JL summarized his contact with the 36th IGC LOC for the reimbursements: At present, the 36th IGC LOC has already refunded almost every one of the registrations that have canceled the meeting and requested for reimbursements, while there are still 700 registrations outstanding; The IUGS Secretariat has contacted all of the exhibition registrants (23 in all), informed them of the process for securing reimbursement for their registration, and further informed them that they will be responsible for contacting Fusion and arranging for their exhibits to be returned/destroyed and that they themselves execute any contractual obligations that are outstanding; With regards to the specifics of the IUGS exhibit, IUGS paid registration which should be reimbursed and IUGS also paid Fusion to create the booth materials which have yet to be delivered, and thus IUGS will not reimburse Fusion for storage.

JL suggested that EC members take the reimbursement process forward by mobilizing their community to request reimbursement and encouraging people to provide the banking transfer information for reimbursement. An ideal way is to do it on a country- by-country and region- by- region basis as the New Zealand delegation has done. There are 25-30 registrations that haven't been reimbursed in Germany, JL suggested LS writing to tell them what to do. SF will take care of the US registrations that haven't been reimbursement.

JM suggested that some of the IUGS exhibit materials could be distributed for educational purpose in India instead of being destroyed. JL responded that he has already talked with the Geological Society of India (GSI) regarding the disposal of the exhibit materials, and GSI is willing to take some of them such as the T-shirts.

For the Action "JL to come up with a written proposal for the Data-driven geosciences meeting", it is in progress.

SF suggested that the EC should decide how to include the Big Science Program in the IUGS Statutes and Bylaws in terms of its funding and relationship with the IUGS.

For the Action "To work out an IUGS policy conflicts of interest of EC members", it will be further discussed in future meetings in June or later. JM pointed out that JL and HM have already put out a helpful list and an agreement has been reached: The EC members can be on certain associations and linked as long as they don't participate in any voting on funding. The statement will be put on the website once it's approved by the EC members. SF pointed out that this policy has already been stated in the IUGS Statutes "A member of the EC can't be a delegate of an Adhering Country, nor can the person be an officer in a Commission".

ACTION 21: The EC members to mobilize their community to request reimbursements of the 36th IGC and encouraging people to provide their banking transfer information for reimbursement.

19. Process for a strategic review of IUGS

LS introduced IUGS Strategic Plan 2012 by presenting strategic issues in standards, science, outreach, education, organization, operation and IUGS partners. LS recommended to organize specific meeting or set a working group to work on the new strategic plan based on the SWOT analysis made by EC members.

JL commented that the past 20 years witnessed changes in the developing direction of geological sciences, including more focus on climate change and geoscience education. JL suggested refreshing the strategic priorities based on SWOT analysis

and provide the primary version by June 1st and send it to IUGS national representatives for modifications.

JM suggested including DDE Big Science Program, the role of geoscientists in addressing climate change and IUGS's link to SDGs into the updated strategic plan. Updating IUGS strategic plan can help to promote public's awareness of the role of geoscience and geoscientists. CM commented that it is significant to provide the public, specifically the young generations, a better interpretation of the role of geoscientists in addressing the fundamental issues that mankind is facing, such as resourcing future generations and climate change. QC commented that IUGS can consult to some strategic priorities of UNESCO and ISC, such as the open science concept, data revolution and 2030 SDGs.

A working group, led by LS and with JL, CM and JM as members, will work on the primary IUGS Strategic documents.

ACTION 22: The working group led by LS to provide a primary IUGS Strategic Priorities.

20. Participation in anniversary events 75th UNESCO, 60th IUGS, 50th IGCP

JL mentioned ideas for celebrating anniversary events - the 75th of UNESCO, 60th of IUGS and 50th of IGCP. JL suggested IUGS sponsoring a stand at the 75th UNESCO Anniversary in November 2021, possible secondment to UNESCO to help plan all anniversaries and the launch of DDE.

SF suggested inviting IUGS adhering members to attend the 60th Anniversary of IUGS and Paris might be the most convenient meeting place for participants from all over the world. JL mentioned the idea of holding a series of activities during the 60th IUGS anniversary in February or March of 2022, including IUGS Council Meeting, IUGS EC meeting, and the launch of refreshed IUGS strategy, revised IUGS Statutes and Bylaws and DDE Big Science Program. The 50th IGCP anniversary can be combined with the 75th UNESCO anniversary. SF suggested national delegates who cannot attend the Council Meeting due to COVID-19 pandemic can join in the Council Meeting via internet.

SF referred to modifications to be made in the IUGS and IGC Statutes and Bylaws: 1. Replace all the ICSUs with ISCs; 2. Change the terms, officers and members of Publications Committee; 3. Add guidelines for virtual Council Meetings due to the aftermath of pandemic to IUGS Statutes and Bylaws.

HK emphasized that 100,000 USD had been budgeted for celebrating the various anniversaries including the 75th UNESCO, 50th IGCP and 60th IUGS anniversary, among which 20,000 USD had been allocated for the year 2021 and 80,000 USD for

the year 2022.

JM brought up the issue on possible secondment to UNESCO (virtually) to help plan all the events related to the anniversaries. JM asked if there is an opportunity to using the IUGS Special Funding in the next couple of years to focus on the IUGS-UNESCO project. JL will contact the UNESCO counterparts for detailed discussion and come up with a proposal if the EC agreed on the secondment to UNESCO. SF gave high praise to UNESCO for its great support in all the local logistics. SF added that IUGS and UNESCO had maintained excellent links via IGCP and Geoparks.

JL suggested that IUGS should increase its visibility and built stronger relationships with other GeoUnions. JL agreed that IUGS's focus should be on the celebrating events during the next spring in Paris. HK added that UNESCO set a model for the geoscience education through Geoparks.

ACTION 23: JL to contact the UNESCO counterparts for detailed discussion on the job description and come up with a proposal.

LS recommended that the chosen part-time person be based in Paris to conduct effective face-to-face discussion with UNESCO.

ACTION 24: JL to fix the dates for the IUGS EC meeting and Council meeting with UNESCO.

HK informed that he would send the revised IUGS allocation table of 2021 to all the EC members the next day. JL recommended IUGS get involved in the IUGG 2023 Meeting in Berlin by co-organizing sessions.

ACTION 25: LS to contact IUGG to check if there is any opportunity to co-organize sessions during the IUGG meeting in Berlin.

JL suggested the next EC meeting be in mid-May to Early-June, focused on IUGS strategy and the 60th anniversary, etc.

At last JL thanked all the participants for their participation and hard work.

ACTION LIST

Item	Description	Status
EC76Act_01	JL to contact the 36th IGC LOC about the suggestions and decisions of the Executive Committee concerning the reimbursements of the 36th IGC and the proposed virtual meeting in March 2022.	Done
EC76Act_02	JL to come up with a written proposal for the Data-driven geosciences meeting to be further considered by the Executive Committee.	In Progress
EC76Act_03	SF to inform the LOC of the 37th IGC of the recommendations of the Executive Committee on the preparations of the 37th IGC.	Done
EC76Act_04	Secretariat to note and update committee lists and file MoU.	Done
EC76Act_05	The EC to work out a process to nominate people for external committees.	Done
EC76Act_06	JL to contact the 36 th IGC LOC about the reimbursements of booth fees and exhibition fees.	Done
EC76Act_07	SF and HK to look over the financial loss formation of the Hutchison Awardees individually, make a list and circulate it to everyone to make up for those who did lose through non-reimbursements.	Done
EC76Act_08	JM and HM to work together with the webmaster to improve the IUGS Website.	In Progress
EC76Act_09	SF to distribute the TGIR proposal to EC members.	Done
EC76Act_10	SF to write to TGIG to express IUGS's willing to encourage more young scientists to participate in TGIG.	Done
EC76Act_11	LS to check whether the Statutes and Bylaws of ILP permits ex-official of IUGS to continue his/her IUGS representation in ILP.	Done
EC76Act_12	JL to contact Kristine Asch for more details on the developing process and direction of the GEOMORE internet platform.	Done
EC76Act_13	JL to ask Kristine Asch whether she wants to continue her IUGS representation in ILP.	Done
EC76Act_14	SF to draft allocation letters to the constituent bodies and affiliated organizations within a couple of weeks.	Done
EC76Act_15	SF to write a letter to all the EC members to reconfirm all the allocations decided on today's meeting.	Done
EC76Act_16	SF to circulate the list of all the Hutchinson Awardees and the exact budget number.	Done
EC76Act_17	JL to write a summary of important strategic issues.	Done
EC76Act_18	SF to write to the Special Funding Programs and ask for their annual reports and expenditures, based on	Done

	which the EC will decide on further financial support.	
EC76Act_19	SF to contact the Hutchison Awardees individually asking for the receipts and documentations for reimbursements.	Done
EC76Act_20	The Secretariat to investigate the license cost of ZOOM for virtual meetings to host 1000+ participants.	Done
EC76Act_21	The EC members to mobilizing their community to request for reimbursement of the 36th IGC and encouraging people to provide their banking transfer information for reimbursement.	In Progress
EC76Act_22	The working group led by LS to provide a primary IUGS Strategic Priorities.	In Progress
EC76Act_23	JL to contact the UNESCO counterparts for detailed discussion on the job description and come up with a proposal.	Done
EC76Act_24	JL to fix the dates for the IUGS EC meeting and Council meeting with UNESCO.	In Progress
EC76Act_25	LS to contact IUGG to check if there is any opportunity to co-organize sessions during the IUGG meeting in Berlin.	In Progress