



Slovenian National Committee
of the International Geoscience
Programme and Geoparks

ANNUAL REPORT OF THE SLOVENIAN IGGP NATIONAL COMMITTEE FOR 2018

Ljubljana, February 2019

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REPORT OF THE SLOVENIAN IGGP NATIONAL COMMITTEE FOR 2018

1. IGGP NATIONAL COMMITTEE MEMBERS

There were no changes in the membership of the IGGP National Committee this year. It has 15 members, of which two honorary members:

1. Dr. Mirka Trajanova, Geological Survey of Slovenia (GeoZS), Chairperson NC IGGP
2. Prof. dr. Nina Zupančič, UL, NTF, Dept. for geology, secretary NC IGGP
3. Dr. Miloš Bavec, general manager of GeoZS
4. Dr. Katica Drobne, sci. advisor, collaborator of the Paleontological Institute Ivan Rakovec, ZRC SAZU, honorary member
5. Mag. Suzana Fajmut Štrucl, univ. dipl. ing. geol., Geopark Karavanke/ Karawanken
6. Asist. prof. dr. Luka Gale, UL, NTF, Dept. for geology, and GeoZS
7. Asist. prof. dr. Špela Goričan, Paleontological Institute Ivan Rakovec, ZRC SAZU
8. Asist. prof. dr. Mateja Gosar, GeoZS
9. Marjutka Hafner, general manager of the UNESCO Office in Slovenia
10. Assoc. prof. dr. Martin Knez, Institute for karst research, ZRC SAZU
11. Asist. prof. dr. Tea Kolar-Jurkovšek, GeoZS
12. Assoc. prof. dr. Marko Komac, Marko Komac s. p.
13. Prof. dr. Jože Pezdič, research organisation GEORIS
14. Emeritus prof. dr. Simon Pirc, retired collaborator of the UL, NTF, Dept. for Geology, honorary member
15. Bojan Režun, univ. dipl. ing. geol., Geopark Idrija

2. IGGP PROJECTS IN 2018

The 2018 activities of the Slovenian national IGGP Committee comprised IGCP projects, and UNESCO global geoparks Idrija and Karavanke / Karawanken. The emphasis was on the importance of geoscience for society, thus following the priorities of UNESCO and IUGS. Research topics covered a wide range of geosciences as seen from the Table 1. Research groups were involved in international cooperation, which reflect both participation in international scientific meetings and joint research, as well as getting support with costly analyses or analyses for which we lack our own staff. Popularization of geosciences and knowledge transfer took place through direct or indirect cooperation with geoparks and elementary schools. For the general public, workshops were organized at the science festival named "Znanstival". This year a special number of the national magazine Proteus was prepared in cooperation with the IGGP members, dedicated to the cross-border UNESCO Global Geopark Karavanke /Karawanken.

The ongoing projects and leaders of individual tasks with the institutions on which they operate are shown in Table 1.

Table 1: IGGP projects, national project managers and institutions

No.	Projects IGCP and UNESCO Geoparks	Project manager, institution
1.	IUGS/IAGC Geochemical Baselines	Gosar, GeoZS
2.	IGCP 661: Structure, Substance Cycle, and Environment Sustainability of the Critical Zone in Karst Systems	Knez, ZRC SAZU
3.	IGCP 610: From the Caspian to Mediterranean: Environmental Change and Human Response during the Quaternary	Žebre, Mencin-Gale, GeoZS
4.	IGCP 652: Reading geologic time in Paleozoic sedimentary rocks: the need for an integrated stratigraphy	Dolenec, NTF
5.	IGCP 609 : Climate-environmental deteriorations during greenhouse: Causes and consequences of short-term Cretaceous sea-level changes	Drobne, ZRC SAZU
6.	IGCP 630: Permian-Triassic climatic and environm. extremes and biotic response	Kolar-Jurkovšek, GeoZS
7.	IGCP 632 - Continental Crises of the Jurassic	
8.	IGCP 637: Heritage Stone Designation	Jarc, NTF
9.	IGCP 637: Heritage Stone Designation	Novak, GoeZS
10.	IGCP 649: Diamond and Recycled Mantle	Vrabc Mi., NTF
11.	636 - Characterization and sustainable exploitation of geothermal resources	Rman, GoeZS
12.	IGCP 661 - The Critical Zone in Karst Systems	Janža, GoeZS
13.	IGCP 637: Heritage Stone Designation	Brajkovič, NTF
14.	Geopark Idrija	Režun, Center for the Idrija heritage
15.	Geopark Karavanke, Slovenia-Austria	Fajmut Štrucl, Podzemlje Pece
16.	Charing of the NC IGGP	Trajanova, GeoZS

3. SUMMARY OF ACTIVITIES ON THE IGGP PROJECTS IN SLOVENIA IN 2018

NO IGGP had an active linking role between the involved national IGCP researchers on the one hand, and the Slovenian National Commission for UNESCO and international geoscientific organizations such as the International Union of Geological Sciences (IUGS), the European Geoscience Union (EGU), the Carpathian Balkan Geological Association (CBGA) on the other hand. We were solving the IGGP members' ongoing issues regarding the preparation of annual reports and work plans via e-mail. For more information on events and directions in the field of geosciences, we used a special group e-mail Georg, which is managed by the Paleontological Institute ZRC SAZU. This enabled us to have only one regular NC IGGP annual session, at which we reviewed the results of the work in the current year and

harmonized the work plan for the next year. In case of necessity, we organized correspondence sessions, which were mostly informal.

At the annual meeting of the NC IGGP on November 20th 2018, we reviewed the activities in the current year and adopted the plan and the distribution of funds to individual projects for 2019.

The work on ongoing IGCP projects includes very diverse topics. Only the project IGCP 649 is purely basic in nature. At the same time, it also contains data on mineral resources that are found in the specific environment, and properties of rocks that are important for geologically conditioned risks.

The focus of the IGCP is on processes and events that have a direct or indirect impact on living nature. The Environmental Geochemistry Project thus addressed the pollution zones due to anthropogenic activity throughout the EU and beyond. The most critical areas were defined. The results represent a direct basis for a need of priority action at national and municipal level.

Climate change and consequently environmental changes are recorded very often in geological history. IGCP 632 and 609 deal with such phenomena occurring in Jurassic and Cretaceous. Older, Paleozoic and transitional Permian to Triassic events were treated in the IGCP projects 652 and 630, while the project IGCP 610 focused on the closest effects of climate change in the Quaternary between the Mediterranean and Caspian. These changes also affected the humans whose survival demanded adaption to new conditions.

Extreme weather events in the present time indicate a changing climate as well. Among the first and most affected will be the most vulnerable regions, where to definitely karst regions belong. This topic was covered by the IGCP 661. Water is of vital importance in karst regions; therefore, one of the priority topics was hydrogeology, where the critical zones in karst systems were studied. Their tracking was based on the structure of karst and the way of matter circulation in its systems, which determine karst's environmental sustainability.

Serious problems with pollution forced people to start thinking about the possibilities for its reduction. Among several trials to reduce energy production from fossil fuels, ecologically the most promising is geothermal energy, on the national level mostly for the purpose of heating. The reasonable exploitation of geothermal resources discussed in the project IGCP 636 is crucial for their long-term production ability.

Increasing awareness of the importance of natural and cultural heritage is expressed through growing interest in maintaining it in as much as possible original state. Although we have already missed a lot, especially in nature conservation, efforts are being made to protect and properly restore at least cultural heritage. Part of the subject, related to the stone architectural heritage, was included the project IGCP 637.

In order to move forward in the field of heritage conservation, it is important that the values are recognized and considered by as many people as possible. In the segment of the awareness spread of importance of our heritage and its respect, the geoparks are becoming increasingly important. Cooperation and exchange of good practices between managers of activities enhance their knowledge and increase the ability of transfer to the geoparks visitors and the general public.

The results of IGGP projects were presented at conferences and workshops and published in numerous domestic and foreign internationally recognized scientific journals. This is the best way of recognizing the achievements of national IGGP projects.

The achieved results were possible thanks to the good cooperation and financial support of the Slovenian National Commission for UNESCO.

Prof. dr. Nina Zupančič
NC IGGP Secretary



Report prepared by:
Dr. Mirka Trajanova
NC IGGP Chairperson



Ljubljana, 8. 2. 2019