

## **Project MIKAS (Most Important Karst Aquifers' Springs) – achievements since EUROKARST 2022**

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The aim of the MIKAS (Most Important Karst Aquifer's Springs) project is to create the first complete list of the most important karst springs at the global, but also at the national level. The project was launched at the annual meeting of the Karst Commission (KC) of the International Association of Hydrogeologists (IAH) in June 2022, during the last EUROKARST conference held in Malaga. The MIKAS project's Advisory Board consists of one representative from each continent who work together with three rotating chairs of the KC, and the project team leader - the first author of this abstract. All of them are members of the KC, which is one of the most active IAH groups, with a tradition longer than 50 years. The UNESCO-IHP provides project monitoring and will sponsor some of the activities.

Why karst springs should be prioritized in creation of global catalogue of springs? Karst covers more than 15% of the continental ice-free land, while karst aquifers supply potable water to approximately 9.2% of the world's population, i.e. some 700 million people in 150 countries. The springs emerging from karst aquifers are globally the largest – some are even discharging entire underground rivers. They are also supplying potable water to many large cities with several million inhabitants, such as Rome, Vienna, Naples, San Antonio and Damascus. They are significant because they provide precious high quality water, sustain ecosystems, and maintain the baseflow of many of the world's rivers. The intakes of springs are the most common tapping structures in karst environments, because channelling gravity springs and diverting water even over long distances is much easier than drilling numerous wells in hard, dominantly carbonate rocks.

Since the beginning of the project, the Advisory Board (AB) completed the Guidelines which include selection criteria for the two established groups, MIKAS (the list of globally important springs) and NIKAS (nationally important springs), as well as the Spring's Survey Form.

The selection criteria are the following: historic, aesthetic, economic, scientific and ecological. The MIKAS and NIKAS lists should be created based on these common criteria, but should also be adapted to local conditions, recognising the specific circumstances of each country. Something that is important in one country does not have to be important in others.

As of December 2023, the MIKAS project involves 103 national experts who have agreed to voluntarily work on the project. Their expertise has so far helped evaluate more than 100 springs in 22 countries, and at the end of the process these experts will have covered 99 countries from all the continents. Some countries and regions such as Central Asia or the Caribbean are still lacking experts, but we expect the promotion of the project's achievements to increase the number of "karst countries" and complete the list of experts. More information about the project, including the Guidelines, the Survey Form with required data and the list of engaged experts, can be found at: <https://karst.iah.org/projects>.