Current Status and Future Perspectives of the IAH Karst Commission's MIKAS (Most Important Karst Aquifers' Springs) Project

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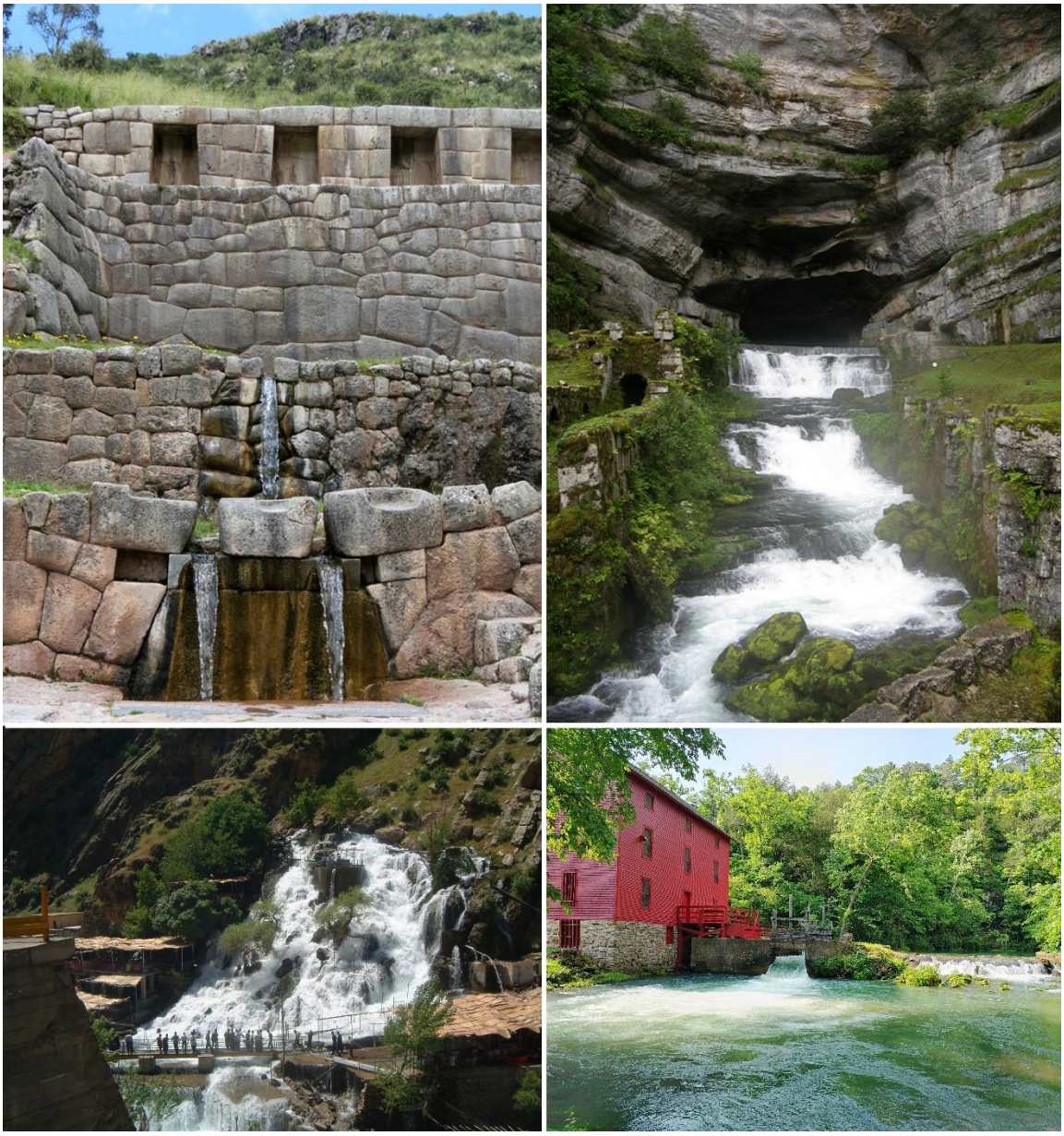
Project MIKAS (Most Important Karst Aquifer's Springs, https://mikasproject.org/) was launched at the annual meeting of the Karst Commission (KC) of the International Association of Hydrogeologists (IAH) in June 2022, during the EUROKARST conference held in Malaga. Its aim is to identify, promote and create a base for the protection of the most important karst springs at the global, as well as at the national level. It is supported by the IAH Council and four continental-level sponsors. The project's Advisory Board (AB) is composed of Karst Commission members and previous Commission chairs, who have continental/regional responsibilities and coordinate the work of national experts.

The AB members prepared a set of 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 a Spring Survey Form. The selection criteria are historic, aesthetic, economic, scientific and ecological.

At the end of 2025, the MIKAS project involved more than 100 national experts from six continents. To date, their expertise helped evaluate more than 250 springs in 65 countries, of which more than 160 belong to the MIKAS group. The tentative deadline for data collection is September 2026 and it is expected that by then approximately 80 countries will have been covered by appropriate expertise. The total number of countries with some karst occurrence is around 150, but not all of them have important springs. In certain cases, karst is of limited extension or even mostly confined. For some countries, in which important karst springs are present but no local expertise has been identified, AB members have collected and presented basic data in two categories: 1. Springs with insufficient data, or for which there is only a preliminarily survey, and 2. MIKAS/NIKAS candidate springs requiring further study. The former category provides a higher level of confidence and includes consultations with local or international experts who possess knowledge regarding the concerned country, whereas the latter relies solely on available literature and internet data and require confirmation that water has originated in karst aquifer.

The AB is preparing the Code of Practice aiming to highlight the importance of springs on the MIKAS and NIKAS lists, to defend them from possible devastation, and to advocate that any further intervention considers their internationally recognized status. The concept of protecting selected springs does not imply prevention of their further use. The projects for their development, whether or not they are already tapped out, should require only sustainable and precautionary approaches in water management. As a final action, a proposal for standardised informative plates with emblems of the IAH Karst Commission, MIKAS and the local responsible water/environmental agency will be shared with engaged national experts.

As in many such global projects, it is to be expected that additional information sources and experts will arrive after the results of the project are presented and widely disseminated. Therefore, the project will remain active and open to any new set of information and updates which will be posted on the web page https://mikasproject.org/. In the meantime, a MIKAS monograph, edited by AB members, will be prepared and published as an open access document.



Caption: Four approved MIKAS from four Continents: Tambomachay (Cusco, Peru) (upper, left); Bekhal (Soran, Iraq) (lower, left); La Loue (Besançon, France) (upper, right); Alley spring (Eminence, MO, USA) (lower, right) (photos by Z. Stevanović)

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