

## MIKAS and NIKAS springs photo gallery

# ASIA

*China, India, Indonesia, Iran, Iraq, Israel, Laos, Lebanon, Jordan, Malaysia, State of Palestine, Pakistan, Philippines, South Korea, Thailand, Türkiye, Viet Nam*

**Note:** *The classification of springs is preliminary, the final lists will be established at the end of project.*

China



**MIKAS – Baotu spring**



Photo of the Baotu spring (source: [http://www.jinan.gov.cn/art/2022/3/9/art\\_135\\_4942367.html](http://www.jinan.gov.cn/art/2022/3/9/art_135_4942367.html))

**MIKAS – Ling Shui**



Lingshui springs group in SW China. The view of the nine spring outlets and the Wuming River.

MIKAS – Poxin

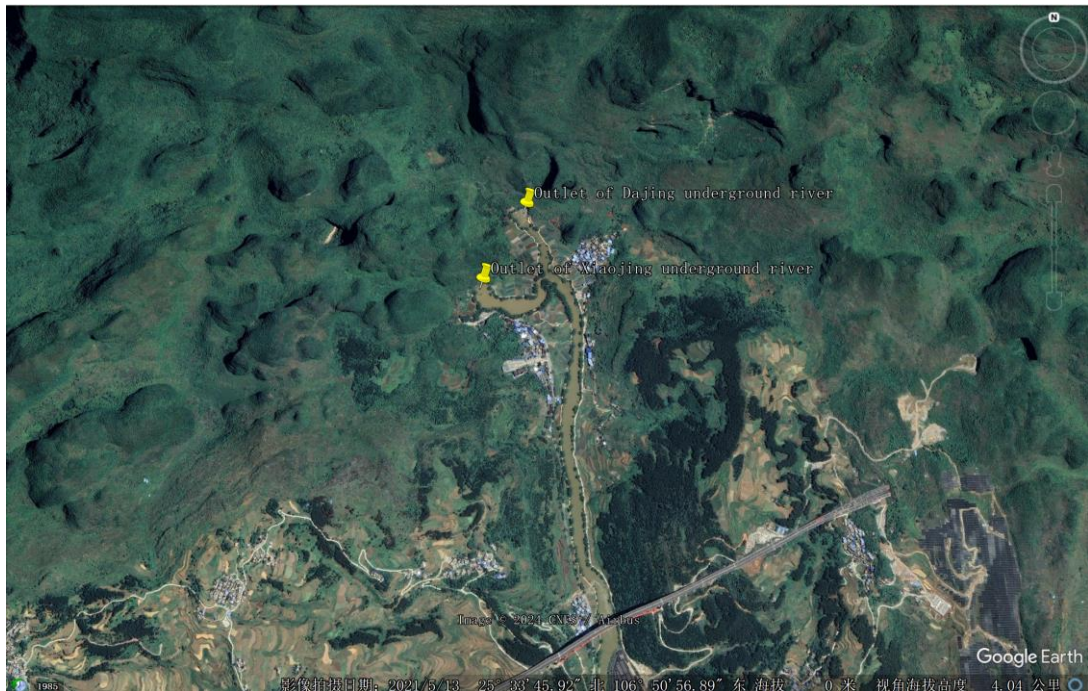


*Jiangzou Natural Bridge (75.5 m in height, 144 m in span)*



*Karst spring's pond and window of the Poxin underground river outlet*

## MIKAS – Daxiaojing underground river system



*Google Earth map with pinned outlet of underground river*



Outlet of Xiaojing underground river



Outlet of Dajing underground river

*Outlet of Daxiaojing underground river (Photo Shouyang HE)*



*Underground river for tourism and recreation (Photo Shouyang HE)*

**India**



**MIKAS – Achabalnag**

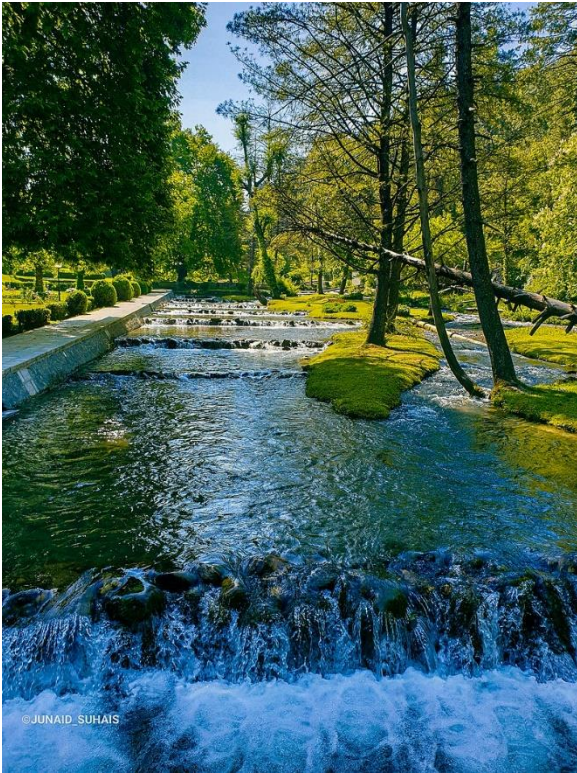


*Achabalnag spring and Mughal garden (source: [en.wikipedia.org/wiki/Achabal\\_Gardens](https://en.wikipedia.org/wiki/Achabal_Gardens))*

**MIKAS – Kokernag**



*Photo of the Kokernag spring surroundings (source: <https://en.wikipedia.org/wiki/Kokernag>)*



*Kokernag spring irrigates botanical garden (source: <https://en.wikipedia.org/wiki/Kokernag>)*

### **MIKAS - Verinag**



*Photo of the Verinag spring and pool (source: <https://en.wikipedia.org/wiki/Verinag>)*



*Photo of the Verinag spring and inscription in Persian (source: <https://en.wikipedia.org/wiki/Verinag>)*

### **NIKAS-Andernag**



*Photo of the Andernag spring (source: Google Earth)*

## NIKAS - Martandnag



*Photo of the Martandnag spring (source: <https://www.kashmironline.com/blog/top-10-springs-in-kashmir/>)*

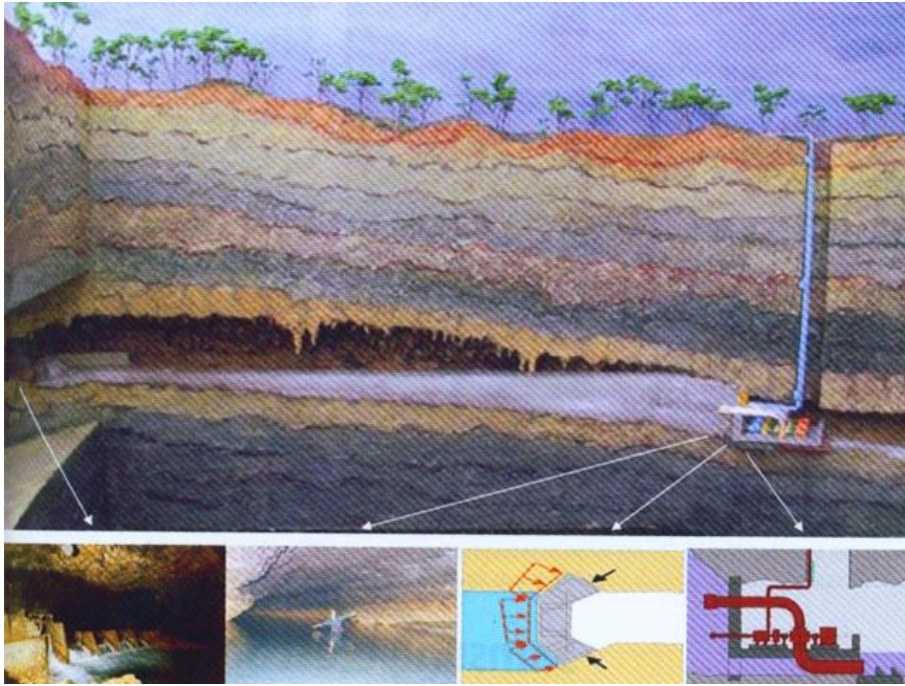
## Indonesia



## MIKAS - Bribin spring (Baron aquifer)



*Bribin underground dam*



*Bribin - Dam and piping scheme underground river*

**Iran**



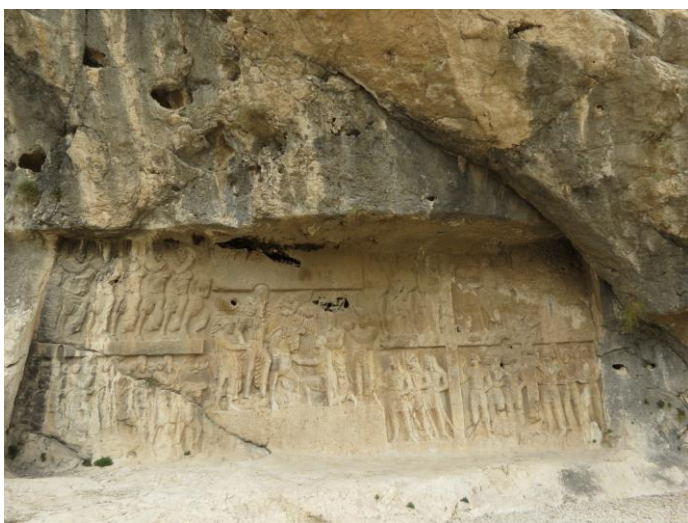
**MIKAS – Sasan spring**



*Sasan spring (Photo by Zoran Stevanović)*



*Entrance into famous Shapour cave in Sasan basin (Photo by Zoran Stevanović)*



*The famous Sassanid rock relief close to Sasan spring showing military campaign (Photo by Zoran Stevanović)*

**MIKAS – Sheshpeer spring**



*Sheshpeer Spring issuing from Sarvak formation (Photo by Zoran Stevanović)*

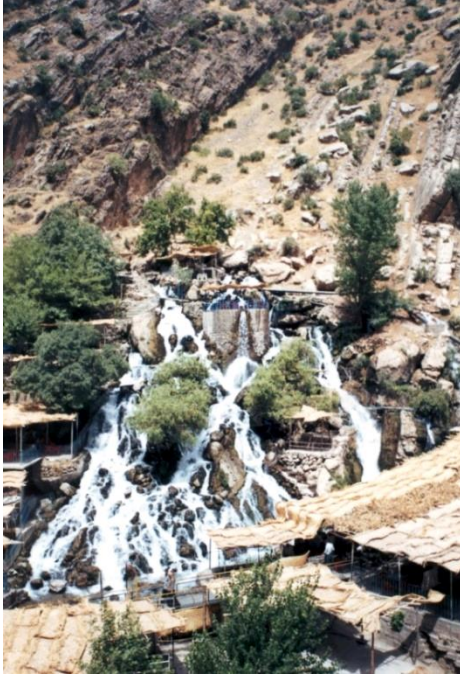


*Barm Firooz anticline – Sheshpeer catchment area (Photo by Zoran Stevanović)*

IRAQ



**MIKAS – Bekhal**



*Bekhal spring in the low-water season*

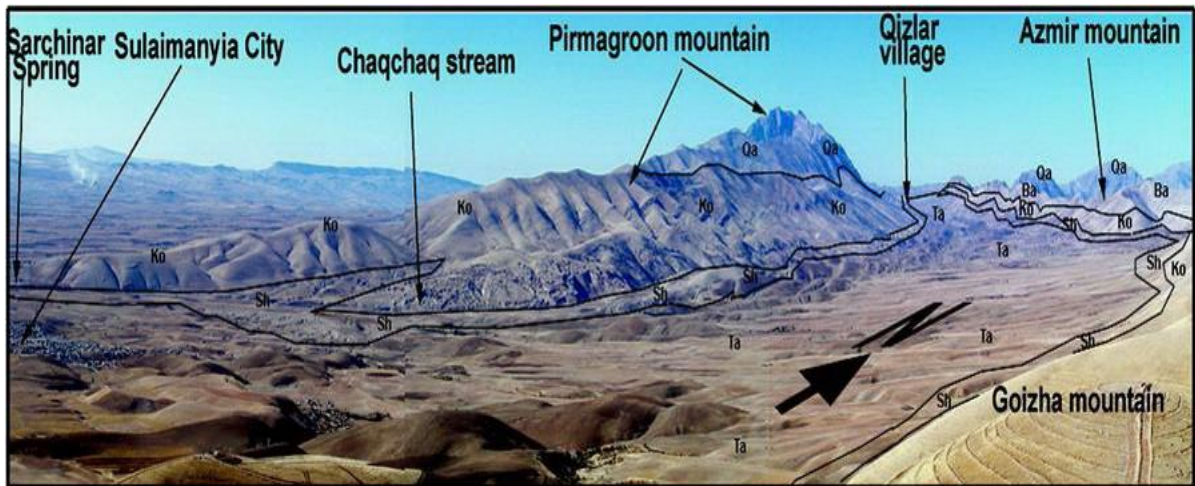


*Bekhal spring in the high-water season*



*Gali Ali beg water fall close to Bekhal – Khalifan. The famous national site used as a motif at one of Iraqi bills*

**MIKAS – Sarchinar**



*Cross section of Pura Magroon Mt - Sarchinar (after Ali, 2008)*



*Pumping station of the ascending spring Sarchinar (photo: Z. Stevanović)*

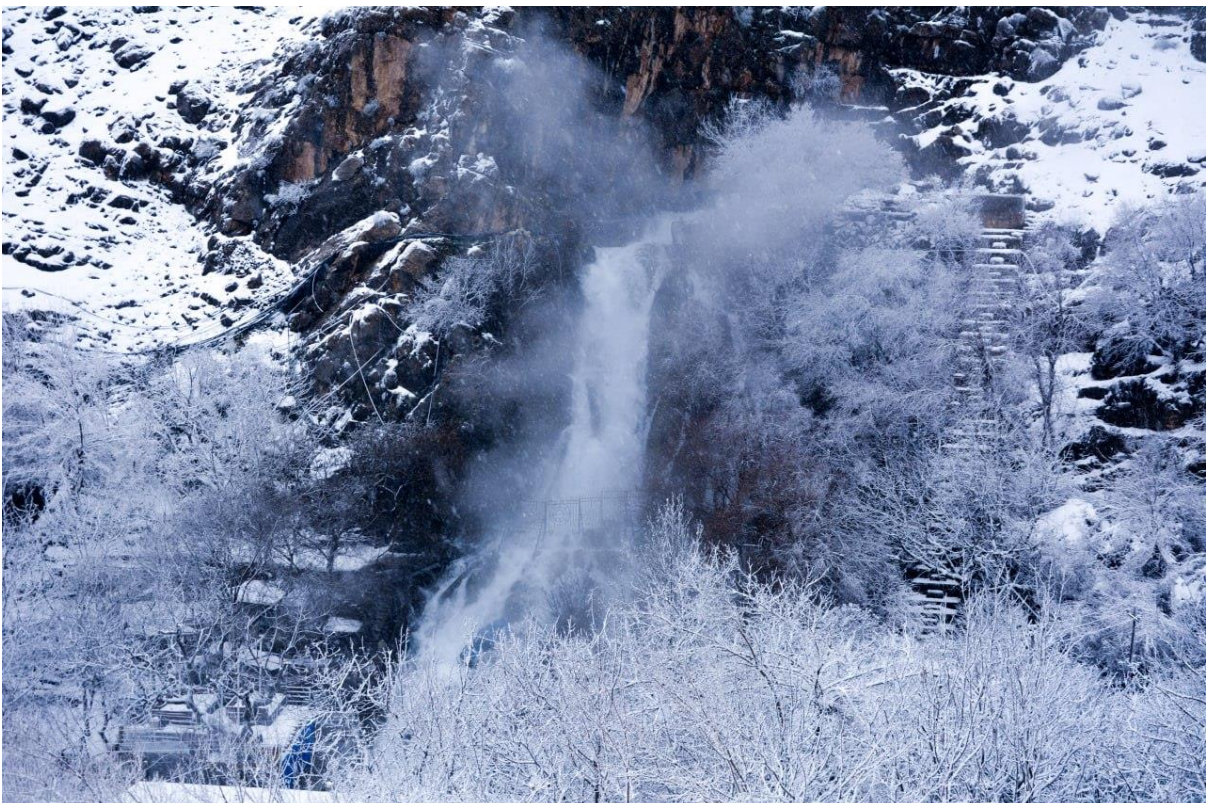


*Spring overflow in Sarchinar resort area (Photo: S.S. Ali)*

## MIKAS - Zulum



*Zulum spring water issuing under the large cliff (photo Z.Stevanović)*



*Zulum spring in the wintertime (source: <https://www.khormal.com/2023/02/zalm.html> )*

## MIKAS – Khanis

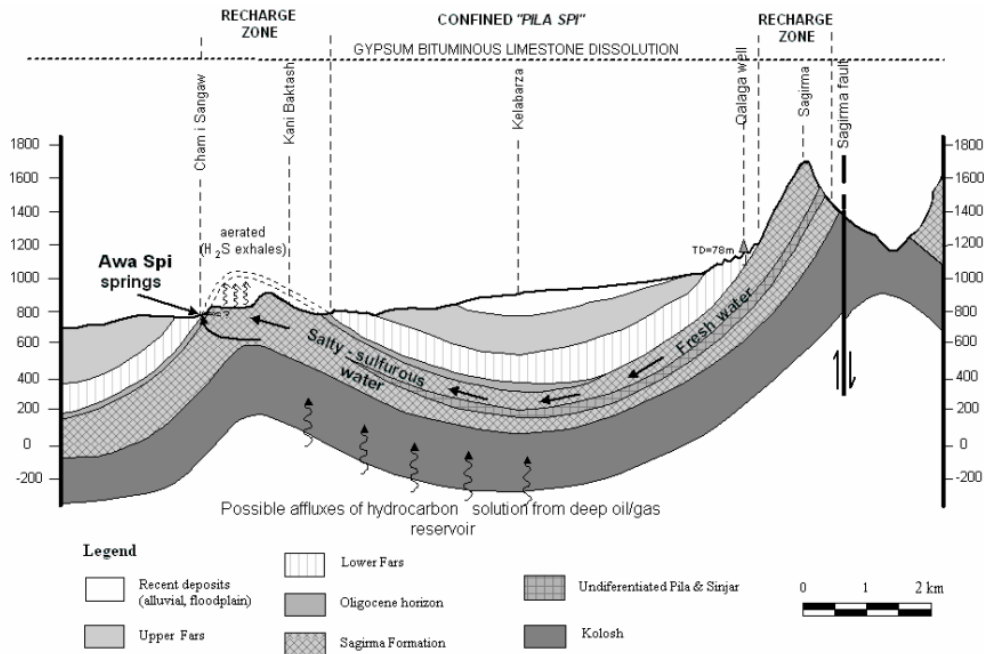


*Reconstruction of Khanis aqueduct (after Jacobsen & Lloyd, 1935, redrawn)*



*Monumental cliff with cuneiform inscriptions above Khanis spring (courtesy of A. Holm)*

# NIKAS – Awa Spi



Hydrogeological conceptual model of Awa Spi spring genesis (after Lurkiewicz A.)



Ascending Awa Spi spring and its milky to light blue water (photo A. Lurkiewicz)



*Deep crevasse / pothole expanded along long fault near Awa Spi (photo A. Iurkiewicz)*



*Awa Spi discharge point (photo Z. Stevanović)*

### **NIKAS – Saruchawa**



*Saruchawa spring and pumping station during drought season of the year 2000 (photo Z.Stevanović)*

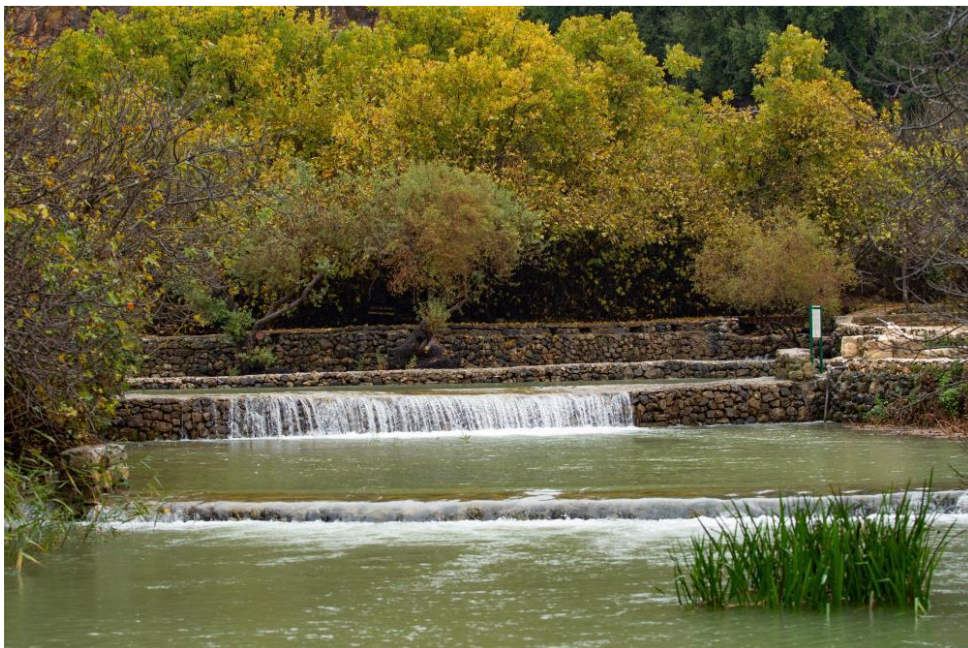


*Saruchawa springflow, draining Mackok Mt. (photo A. Lurkiewicz)*

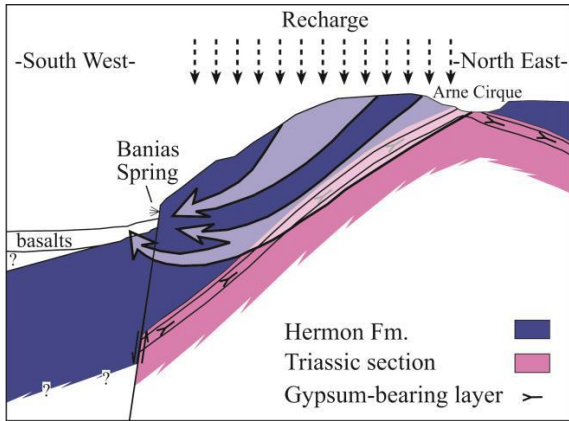
**Israel**



**MIKAS – Banias**



*Outlet point of the Banias Spring (Photo by Doron Nissim, Israel Nature and Parks Authority)*



*Schematic water flow model in the southwestern part of Mt. Hermon towards the Baniyas Spring consisting of two components: a deeper flow flushing the Upper Triassic-Lower Jurassic rocks and a shallower flow that runs through the Jurassic Hermon Fm.*

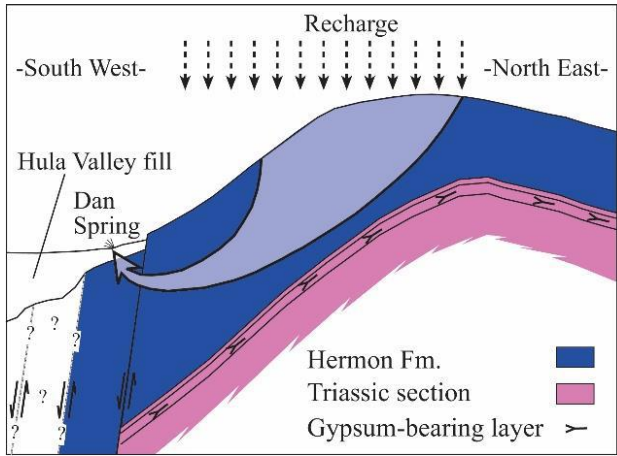


*A waterfall down the spring in the Hermon (Baniyas) River (Photo by Doron Nissim, Israel Nature and Parks Authority)*

## MIKAS – Dan



*The Dan stream (Photo by Doron Nissim, Israel Nature and Parks Authority). Mount Hermon on which the recharge to the spring is taking place, is visible in the background.*



*Schematic water flow model in the southwestern part of Mt. Hermon towards the Dan Spring*

**MIKAS – Gihon**



*The Siloam Tunnel (Photo by Dan Gill)*

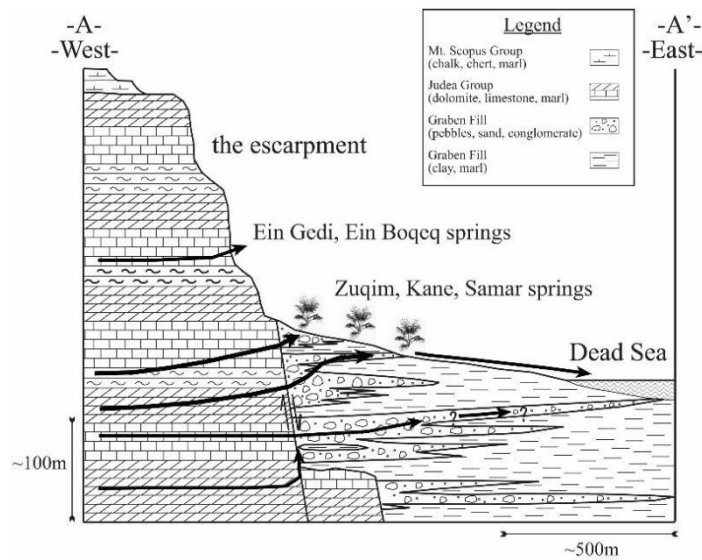


*Location of Gihon and Siloam Tunnel (from Shanks, 2013)*

**NIKAS – Ein Gedi, Shulamit, David, and Arugot**



*The waterfall in Ein Gedi National Reserve (Photo by Nissim Keshet, Israel Nature and Parks Authority)*



*Schematic geological cross section showing the two flow paths in the Judea Group Aquifer towards the Dead Sea: the deep regional and shallow flow*



*An arid landscape of the eastern Judean desert showing the cliff in the Ein Gedi area above the Dead Sea coast (Photo by Nissim Keshet, Israel Nature, and Parks Authority)*

Jordan

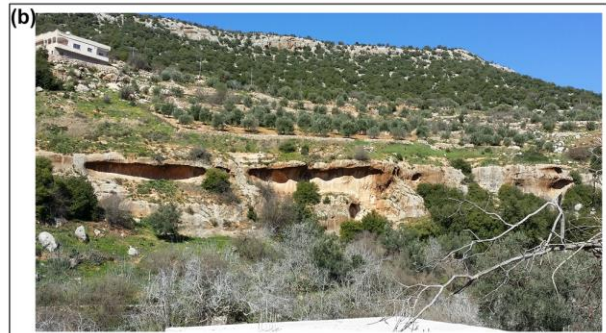


**MIKAS – Tanour spring**



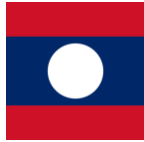
Tanour spring head chamber

Tanour spring (photo by Ibraheem Hamdan, 2016)



*a. Epikarst zone and karst pavement, b. open conduits due to the weathering process, d. doline (from Hamdan et al., 2020)*

Laos



MIKAS – Xe Bang Fai Cave



*Photo: 3021\_Ban Laboy, is a photo of the catchment looking upstream from the Ban Laboy ford, just south of the southern boundary of Hin Nam No National Park (Photo by Paul Williams)*



*Photo: 3049\_TXBF Resurgence , is the resurgence/spring of the Xe Bang Fai Cave (Photo by Paul Williams)*



*Photo: 3047\_XBF Sandbank , is looking downstream from the cave resurgence at the pool, sandbank, and river (Photo by Paul Williams)*

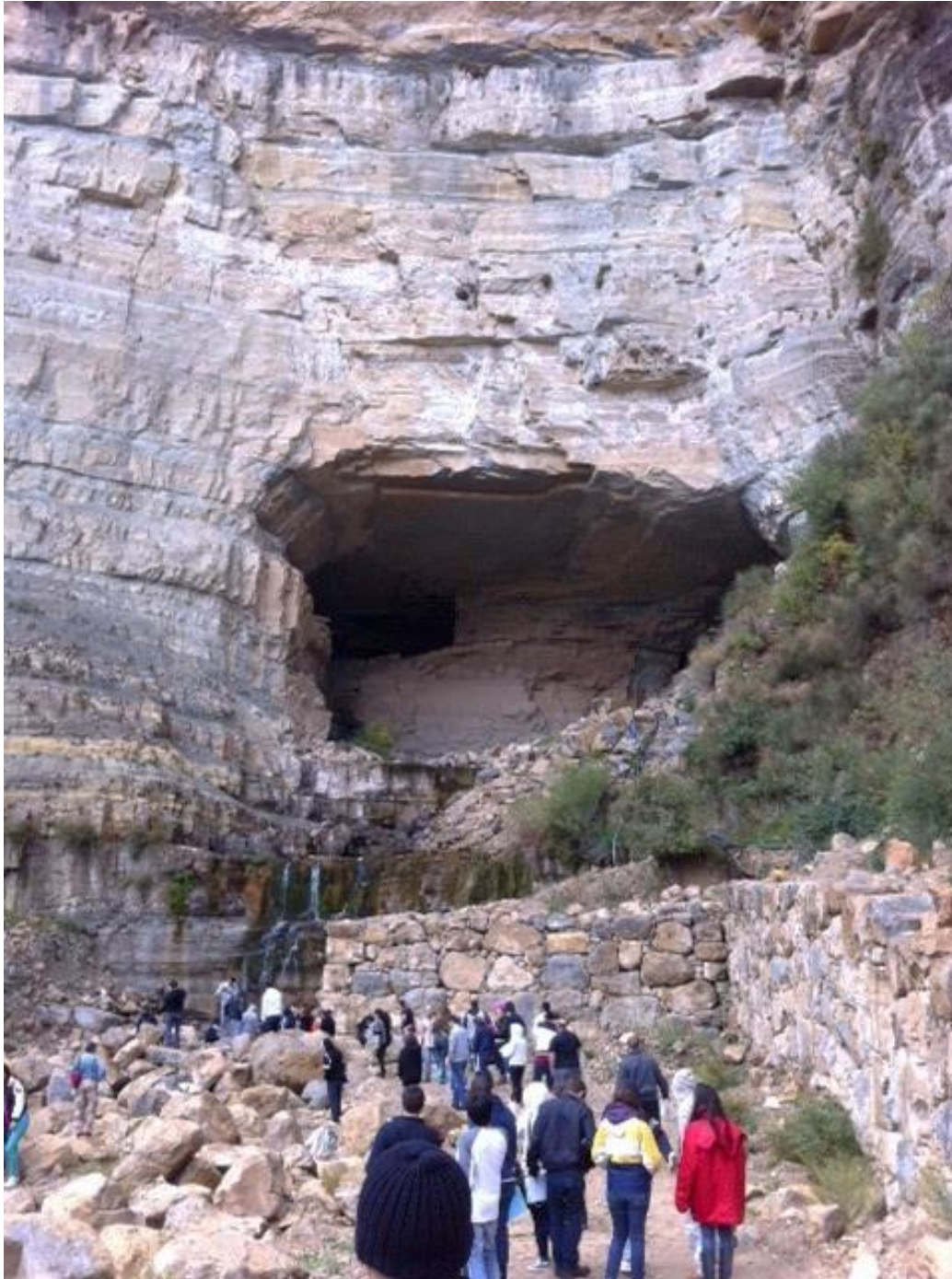
**Lebanon**



**MIKAS - Afqa spring**



*Afqa Spring during high flow (May- July) (Photo courtesy of Joanna Doummar)*



*Afqa Spring during low-flow (August-February) depending on snow melt (Photo courtesy of Joanna Doummar)*

**MIKAS - Jeita spring**



*The original spring entrance (February, 2011) (Photo courtesy of Joanna Doummar)*



*The lower cave (Photo courtesy of Joanna Doummar)*



*The lower cave (Photo courtesy of Joanna Doummar)*

**Malaysia**



**MIKAS – Sungai Pelarit**



*Sungai Pelarit floodgate supplying karst water to the Tima Tasoh Dam (photo by Ros Fatimah Muhammad)*



*The spring of one on the caves along the Nakawan Range (Photo by Ros Fatimah Muhammad)*

**Pakistan**



**MIKAS – Laki Shah Saddar I**



*Laki Shah Saddar Overview*



*Laki Shah Saddar Spring (summer)*

**Philippines**



**MIKAS – Puerto Princesa**



*Entrance of the  
Puerto Princesa  
Subterranean  
River along the  
NW coastline of  
Palawan  
(photo: L.  
Piccini, La Venta  
Esplorazioni  
Geografiche).*

South Korea



MIKAS – Sohan cave



*The entrance of Sohan cave (Photo by Han-Sun Ryu)*



Sohan cave spring forms Sohan stream (Photo by Han-Sun Ryu)



Plate for Sohan Valley Ecosystem and Landscape Conservation Area (Photo by Samcheok City)

State of Palestine



MIKAS-Al Faria



*Al Faria spring niche (source: Palestinian Water Authority)*

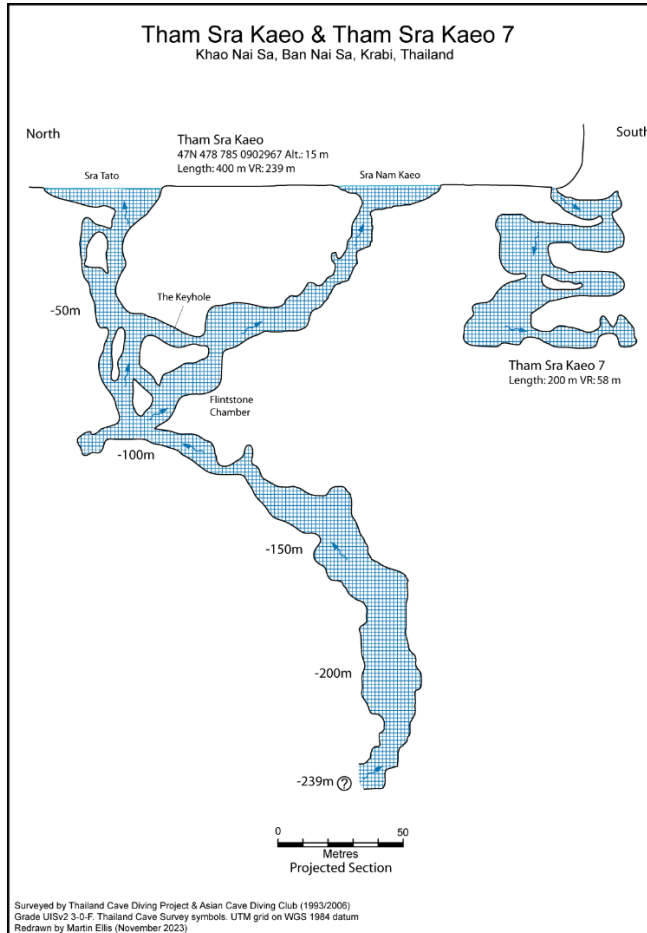


*Seasonal Sanoor depression lake (source: Amer Marei)*

**Thailand**



## MIKAS – Sra Kaeo

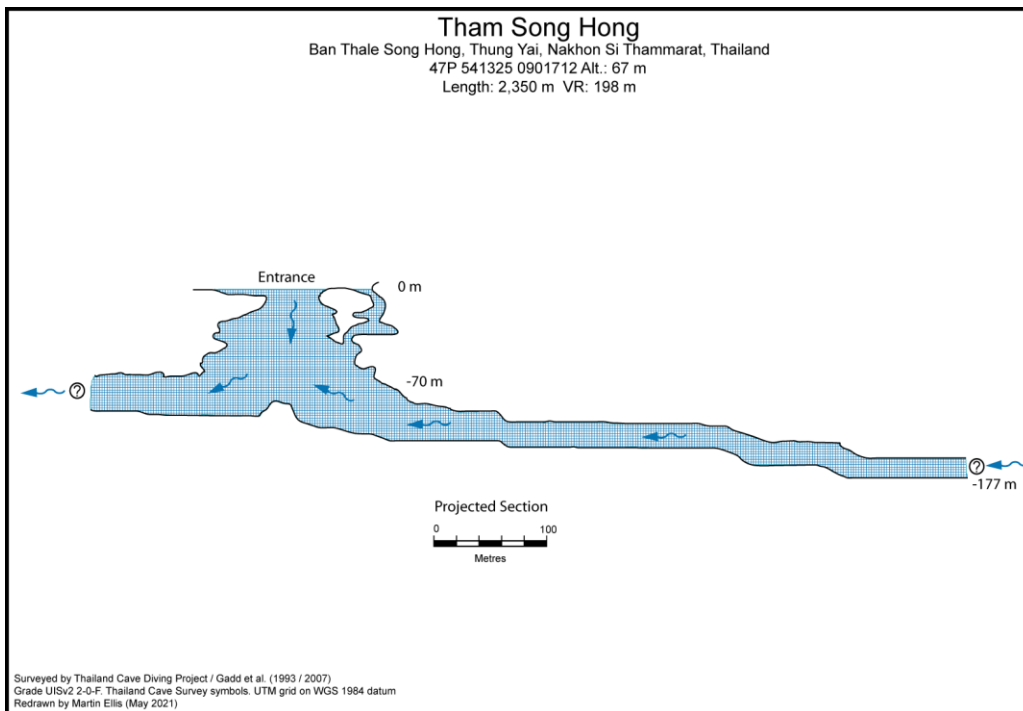


### *Cross-section of Sra Kaeo spring's deep siphon*



*Sra Kaeo resurgence pool – January 2013 (Photo by M. Ellis)*

## MIKAS – Thale Song Hong



*Cross-section of Thale Song Hong spring's deep siphon*



*Thale Song Hong resurgence pool – October 2020 (Photo by M. Ellis)*

## MIKAS – Sra Khun Nam Morakhot



*Thai rescue teams at the sacred Tham Luang Nang Non cave. (AP: Royal Thai Navy) Taken from: Thai cave rescue: Inside the sacred danger of Tham Luang - ABC News  
[https://www.abc.net.au/news/2018-07-11/thai-rescue-inside-the-sacred-danger-of-thailand-caves/9979052?utm\\_campaign=abc\\_news\\_web&utm\\_content=link&utm\\_medium=content\\_shared&utm\\_source=abc\\_news\\_web](https://www.abc.net.au/news/2018-07-11/thai-rescue-inside-the-sacred-danger-of-thailand-caves/9979052?utm_campaign=abc_news_web&utm_content=link&utm_medium=content_shared&utm_source=abc_news_web)*



*Personnel and equipment in the entrance chamber of Tham Luang cave during rescue operations during 26–27 June 2018. Screen capture from NBT news report (from Wikipedia, By NBT - YouTube: <https://www.youtcom/watch?v=f769617oshs> – View/save archived versions on [archive.org](https://archive.org) and [archive.today](https://archive.today), CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=70568175>)*

Türkiye



**MIKAS – Kapuzbaşı**

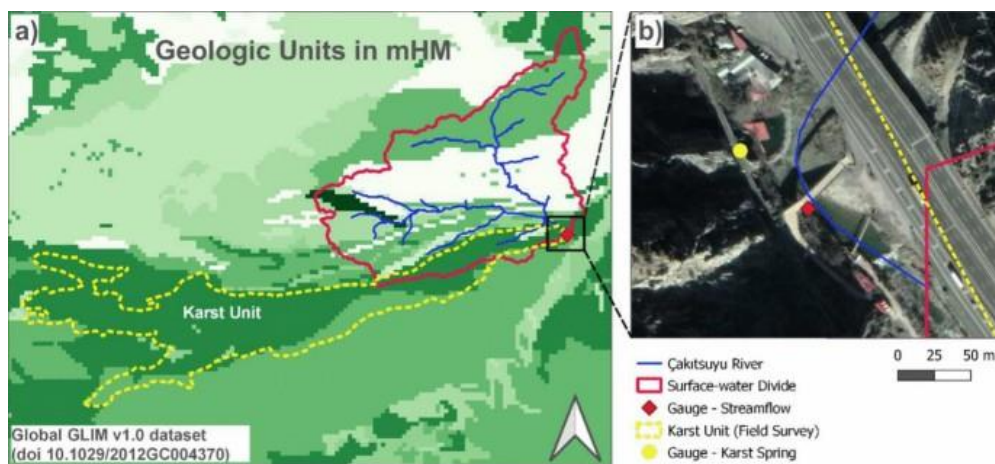


*The Kapuzbaşı spring waterfall (photo was taken in 2017 by Uğur Akdeniz)*

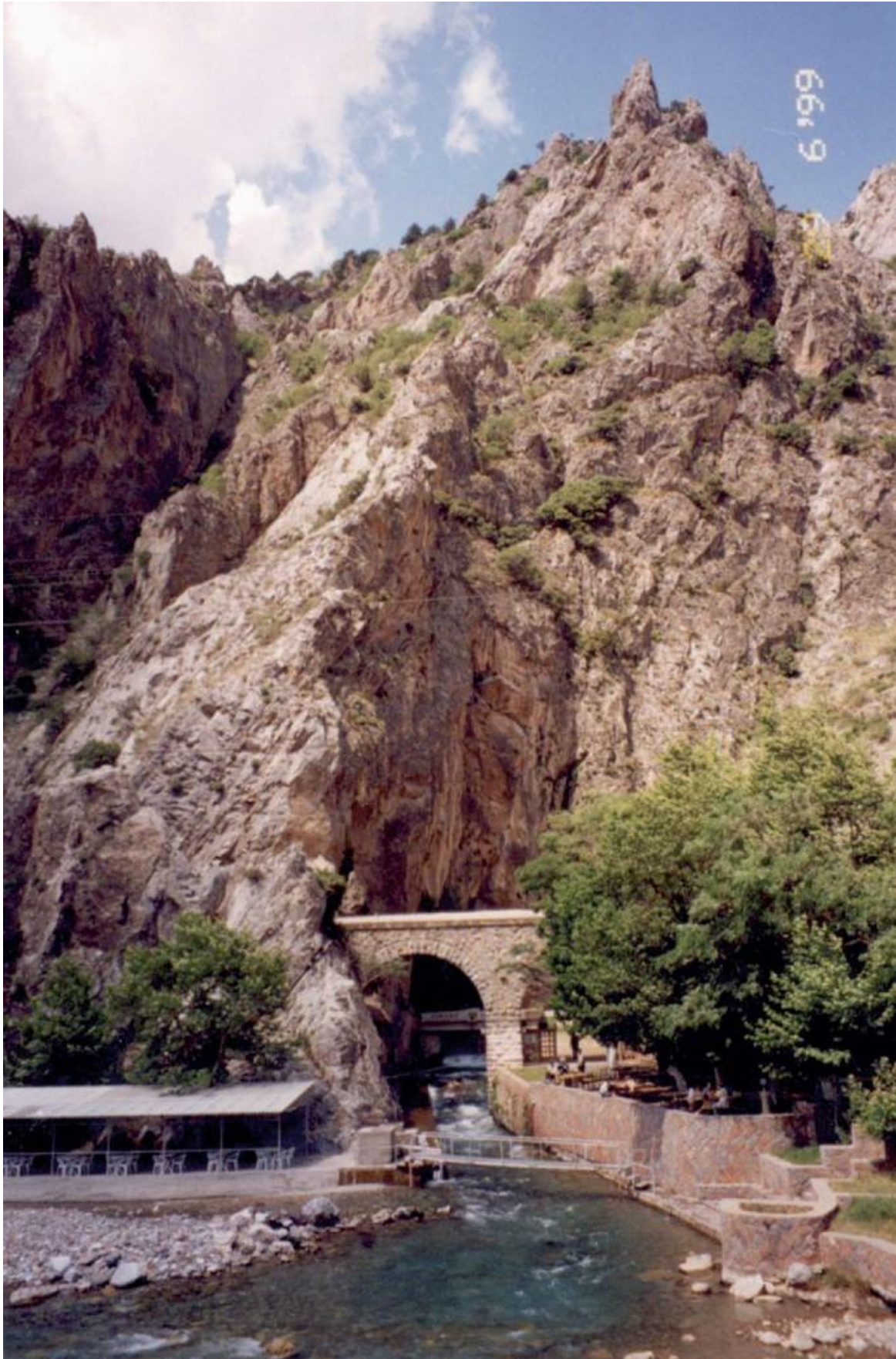


The Kapuzbaşı spring and Zamanti gorge downstream (photo was taken in 2017 by Uğur Akdeniz)

### MIKAS – Şekerpınarı



Map: (a) Karst aquifer boundaries of the Şekerpınarı karst spring according to Global GLIM v1.0 dataset, and (b) the discharge location of the karst spring (Kacar et al 2025).



*The discharge of the Şekerpınarı karst spring (from Günay 2022).*

## NIKAS - Susuz Pınarbaşı



*Susuz Pınarbaşı spring (photo taken by S.S. Çallı in 2017)*



*Susuz Pınarbaşı spring (photo taken by S.S. Çallı in 2017)*

Viet Nam



**MIKAS – Lenin spring**



*The spring landscape is at PacPo commune, HaQuang district, CaoBang province, Viet Nam (photo by VOV)*



*Water flow is from spring at PacPo commune, HaQuang district, CaoBang province, Viet Nam. (photo by VOV)*



*Traditional culture to take water from spring when new year coming. (photo by VOV)*