

February 17, 2025

## News and notes

Before going on to discuss the geology and geopolitics of Hungary, here are some news items I thought were interesting.

## Comments

If anyone has comments on any of my postings, please leave a comment on the LinkedIn page for the posting or email me at [raymondreichelt@gmail.com](mailto:raymondreichelt@gmail.com).

## Free Geology Books and Other Stuff

Free geology books can be downloaded from these sites:

- [OreZone Readers and Experts Telegram Channel](#); the Ore Zone channel also shows employment opportunities for geologists.
- [The Groundwater Project](#) has many groundwater geology books for free download.
- Free Groundwater Modeling Course – [HydroGeoCenter](#).
- From Western Australia: [Carbonatite, lamprophyre and host rocks in the northern Aileron Province](#).
- Two volumes of Geology of Indonesia now can be accessed for **FREE/GRATIS**. The books can be accessed from: vol 1 <https://lnkd.in/eH6Gcka4>; vol 2 <https://lnkd.in/egTYmpjk>.

## Geopolitics

- Donald Trump is analogous to [Issac Asimov](#)'s character [The Mule](#):
  - [Trump sends defense stocks crashing](#);
  - [Trump: Military Spending Could Be Cut in Half and There's No Reason To Build New Nuclear Weapon](#);
  - [Trump Unleashes LNG and Drilling Free-for-All](#);
  - [Two US Navy Ships Transit Taiwan Strait for First Time Under New Trump Admin](#).
- [Ukraine rejects US bid for 50% of rare earth minerals, FT says](#).
- Ukraine not invited to Russia-US talks – Zelensky; related: [Orban sees EU as undeserving of role in Ukraine settlement talks](#).

## Research and News

- [Characterization, prediction and implications of compartments in a mixed carbonate–siliciclastic mass-transport complex: The Cutoff Formation, Permian Basin, Texas](#).
- [Hydrogen Diffusion in Garnet: Insights From Atomistic Simulations](#).

- Big rocks: [NASA engineer reveals exact locations asteroid could hit Earth as chances of collision continue to increase.](#)
- Oceanography: [Late Cenozoic intensification of deoxygenation in the Pacific Ocean.](#)
- [Seismic anatomy of Miocene clinoform sequences on the New Jersey \(USA\) shelf, and implications for sediment transport during base-level rhythms.](#)
- [Petrogenesis of Caledonian-age granites in Southwest China: Implications for magmatic evolution and mineralization along the southern margin of the Youjiang Basin.](#)
- [Formation of talc in the subduction interface: Mg isotopes demonstrate Mg loss over Si gain.](#)
- [Grain-fabric alignments in a mixed carbonate–siliciclastic mass-transport complex: The Cutoff Formation, Permian Basin, Texas.](#)
- From Ugo Bardi: [The Mesozoic Climate Mystery: What caused Warming During the age of Dinosaurs?.](#)
- [Coeval Transverse and Axial Sediment Delivery to the Northern Hikurangi Trough During the Late Quaternary.](#)
- Fluvial geology: [Bed material facies mapping at braided river scale and evidence for trends in fine sediment.](#)
- [Origin of big garnet amphibolites at Gore Mountain and other localities, Adirondack Mountains, New York State, USA: Whole-rock geochemical constraints.](#)
- Coastal geology: [Historical Evolution of the Salento Leccese Coastal Landscape \(Southern Apulia, Italy\).](#)
- More coastal geology: [Sediment bypassing around a headland in a high-energy coastal environment;](#) Phys.org summary [here.](#)

## Magma

- [Chalcophile and siderophile element \(CSE\) partitioning between sulfide liquid and silicate melt and the role of the “Hadean matte”.](#)
- [Carbonated Mantle Lithosphere from the Western Canadian Cordillera.](#)
- [Isotopic fractionation of neon during magma degassing.](#)

## Geophysics

- [Gravity-based structural and tectonic characterization of the Shendi-Atbara Basin, Central Sudan.](#)
- [Earth's Flipping Magnetic Field Heard as Sound Is an Unnerving Horror.](#)
- [The Use of Azimuthal Variation in ScS–S Differential Travel Times to Investigate Possible Anisotropy in the Lowermost Mantle Beneath the Philippines.](#)

- [Annual-scale variability in both the rotation rate and near surface of Earth's inner core](#); SciTechDaily summary [here](#).

## Paleontology

- [An exceptionally preserved conifer wood \*Metapodocarpoxylon\* from the Jurassic of northeastern Qinghai-Xizang \(Tibetan\) Plateau, and its palaeobiogeographic and palaeoclimatic significances](#).
- [Earliest short-tailed bird from the Late Jurassic of China](#).
- [Early colonization of the deep-sea bottom-The protracted build-up of an ecosystem](#); Phys.org summary [here](#).

## Mining and Energy

- [The collapse of a gold mine has killed 42 people and injured several others in Mali](#).
- [Barrick considering redomiciling from Canada to the U.S. and Trump could make it happen faster, says CEO Mark Bristow](#).
- [Mining industry warns critical minerals stockpiles useless without processing plants](#).
- [China's Coal Power Construction Is at a Decade-High Despite Renewables Boom](#).
- [New Gold extends life of New Afton, Rainy River mines](#).
- [U.S. hurting itself, not Canadian uranium producers, with tariffs on energy](#).
- [America's War On Coal Power-Plants Is Over](#).
- [The Devastating Ecological Carnage Wrought by Wind Turbines](#).
- [Middlemen siphon billions from war-ravaged DRC's cobalt, coltan trade](#).
- British Columbia: [Gold mine near Smithers gets final permit](#).
- ["There could be trillions": New, green oil found under the Persian Gulf](#).

## Environmental Geology and Hydrogeology

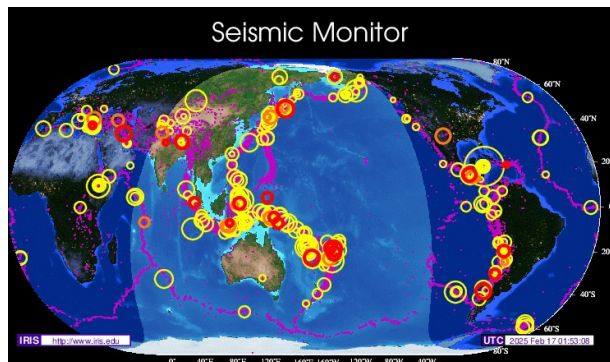
- Los Angeles: [Depth-dependent seismic sensing of groundwater recovery from the atmospheric-river storms of 2023](#); Phys.org summary [here](#).
- [Tiny plastic particles can amplify pollutant absorption in plants and intestinal cells](#); referenced scientific paper [here](#) and [here](#).

## Glaciers and Climate Change

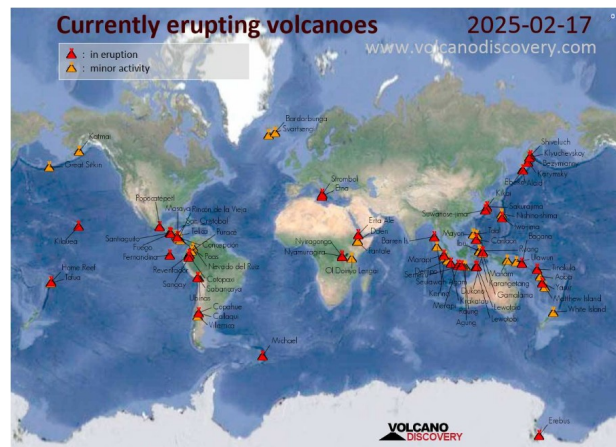
- [Impacts of Antarctic Ice Mass Loss on New Zealand Climate](#).
- [Phanerozoic icehouse climates as the result of multiple solid-Earth cooling mechanisms](#); Phys.org summary [here](#).

- Article on [The draining of Glacial Lake Agassiz](#).

## Volcanoes, Earthquakes and Geohazards



[Seismic Monitor](#)



[Active Volcano Map](#)

### Volcanoes

- United States Geological Survey (USGS) Volcano Watch: [What's shaking? Earthquake alerts explained](#).
- USGS Yellowstone Volcano Observatory: [How geology and climate control vegetation composition and distribution in the Yellowstone Geocosystem](#).
- [Smithsonian / USGS Weekly Volcanic Activity Report](#).
- Research: [Transition from magmatic to phreatomagmatic eruptions in Young Ciremai volcano, Indonesia: insights from stratigraphy, componentry, and textural analysis of tephra deposits](#).
- [Earthquakes are rumbling under Alaska volcano, officials say: Is it about to erupt?](#)
- [Lava and smoke emerge from a snowy Mount Etna](#).
- [Sakurajima Erupts—With Volcanic Lightning!](#)
- [Long-lived partial melt beneath Cascade Range volcanoes](#); behind a paywall, SciTechDaily summary [here](#).

### Earthquakes

- [Euro-Mediterranean Seismological Centre \(EMSC\)](#).
- [Earthquakes Monitoring Live Worldwide](#).
- Santorini: [The seismic swarm in Greece gets more complicated](#); also [Seismic activity moving northeastward](#).

- Iceland: [Iceland on High Alert as Magma Build-up Under Svartsengi Raises Volcanic Eruption Threat, Prompting Evacuations in Grindavík and Blue Lagoon Amid Growing Travel Concerns.](#)
- [Fault geometry and rupture speed as controls on off-fault deformation in the 2023 Turkey-Syria earthquakes.](#)
- [Geological evidence for repeated slip-to-the-trench style megathrust earthquakes at the Japan Trench.](#)
- [M 5.1 – 29 km WSW of Chefchaouen, Morocco.](#)
- Geohazard preparation: [Enhancing Preparedness and Resilience for Seismic Risk Reduction: The “Minoas 2024” Full-Scale Exercise for Earthquakes and Related Geohazards in Crete \(Southern Greece\).](#)

## Upcoming Events

- From Judith A Hubbard and Kyle Bradley: [Live scientific debate announcement, Register now for a debate about earthquake precursors on February 18.](#)
- February 20, 2025 in Delaware, Ohio: [Ohio Geological Society Colloquium, Remediation of Abandoned Underground Mine Working Beneath a Transportation Corridor: State Route 2 – Ottawa County, Ohio – Paul Painter \(ODOT\).](#)
- [Williston Basin Petroleum Conference, April 28-30, Regina Saskatchewan](#); the last day to book rooms at the [hotel hosting the venue](#) is Wednesday, April 2, 2025
- European Geosciences Union: [EGU General Assembly 2025, Vienna, Austria & Online 27 April–2 May 2025.](#)
- [The USGS David A. Johnston Cascades Volcano Observatory will be hosting an Open House for the public on May 10, 2025!](#)
- [Sedimentary Geology and the Energy Transition Conference, June 2-5, 2025 – Salt Lake City, UT USA.](#)
- [Geoscience Beyond Borders, GAC-MAC-IAH-CNC 2025 Ottawa, Ontario, May 11-14, 2025.](#)
- [Society for Sedimentary Geology conference, Mountjoy IV – August 10-13, 2025, in Montreal, Canada.](#)
- [Copper to the World Conference, Tuesday 26 – Wednesday 27 August 2025](#), in Adelaide, Australia; report on 2024 conference [here](#).
- 2025 [Society of Petroleum Engineers Distinguished Lecturer Schedule.](#)
- [List of geoscience events in 2025 from the International Union of Geological Sciences.](#)
- [American Geophysical Union List of Upcoming Meetings.](#)
- The Geological Society: [Events & Courses.](#)

February 17, 2025

## Geology and the Fate of Societies – Hungary



**Figure 1a – Hungary**

**Credit:** [CIA World Factbook, public domain](#)



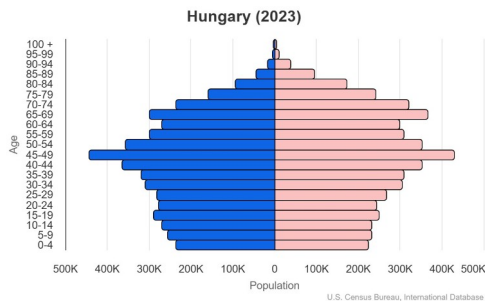
**Figure 1b – Location of Hungary**

**Credit:** [CIA World Factbook, public domain](#)

A landlocked country in [Central Europe](#), [Hungary](#) occupies much of the [Pannonian Basin](#). Surrounding countries include: [Slovakia](#), to the north; [Ukraine](#), to the east; [Romania](#), to the southeast; [Serbia](#) and [Croatia](#), to the south; [Slovenia](#), to the southwest; and [Austria](#), to the west. Hungary is a [unitary parliamentary republic](#), the President is [Tamás Sulyok](#) and the Prime Minister is [Viktor Orbán](#). The legislature is called the [National Assembly](#), the Speaker of which is [László Kövér](#). The Capital and largest city in Hungary is [Budapest](#) (pop. 1,685,342). Hungary is a member of the [European Union](#).

According to the [Central Intelligence Agency](#) (CIA) [World Factbook on Hungary](#), the total area of the country is 93,028 square kilometres (km<sup>2</sup>) of which 89,608 km<sup>2</sup> is land and 3,420 km<sup>2</sup> is water. Also according to the World Factbook, 9,855,745 people live in Hungary, 72.9% of whom live in urban areas. Of the approximately 9.86 million people in Hungary, 84.3% are ethnic [Hungarians \(Magyar\)](#); 2.1% are [Romani](#) (Gypsies); 1% are [German](#); and 14.9% are other or unspecified. The official language is [Hungarian](#) spoken by 98.8% of the population. Other languages spoken in the country include: [English](#) 25.3%, [German](#) 12.6%, [Russian](#) 2.1%, [French](#) 1.5%, [Romanian](#) 1.4%, and others 5.1%. In terms of religion, many Hungarians are some sort of [Christian](#) – a 2022 survey by the CIA found the following: 30.1% are [Catholic](#), 9.8% [Calvinist](#), 1.8% [Lutheran](#), 1.6% other Christian (includes [Orthodox](#)), 0.4% other, 16.1% no religion, and 40.1% gave no answer. Hungarians are well educated with 99.1% of the total population aged 15 and over able to read and write; the general time spent in school is 15 years. Economically, Hungary has a modern, well developed economy: the per capita [GDP](#) is \$49,147; the [Gini](#) coefficient is 29.0, indicating low inequality; and the [Human Development Index](#) is very high at 0.851.

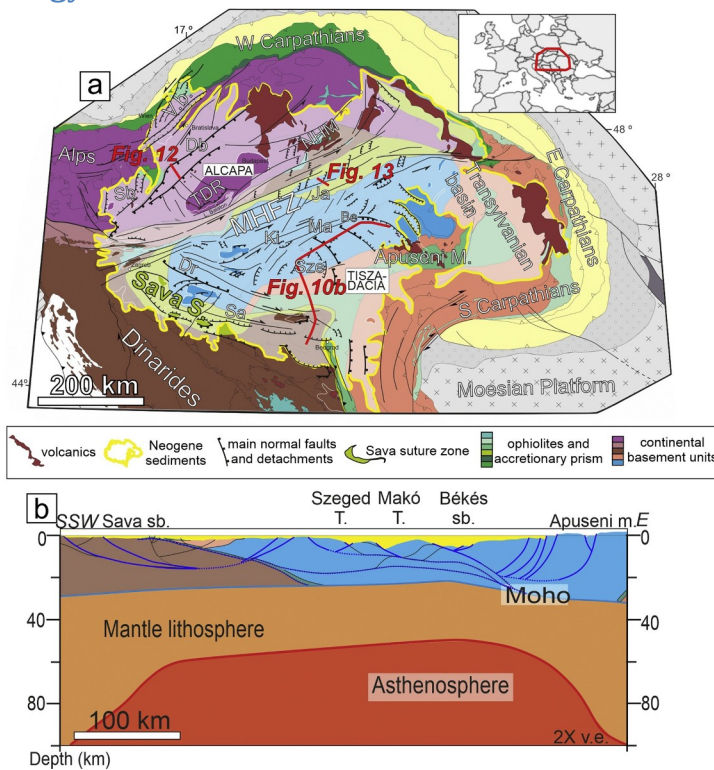
The top [exports](#) of Hungary are cars (\$13.9b), electric batteries (\$9.89b), motor vehicles; parts and accessories (8701 to 8705) (\$9.78b), packaged medications (\$4.41b), and computers (\$4.07B), exporting mostly to Germany (\$37.4B), Italy (\$9.08B), Romania. The top [imports](#) of Hungary are motor vehicles; parts and accessories (8701 to 8705) (\$7.41b), petroleum gas (\$4.75b), integrated circuits (\$4.42b), broadcasting equipment (\$3.98b), and industrial fatty acids, oils and alcohols (\$3.97B), importing mostly from Germany (\$32.8B), China (\$10.2B), Austria (\$8.42B), Poland (\$8.14B), and South Korea (\$8.05B). The main sectors of Hungarian industry are heavy industry (mining, metallurgy, machine and steel production), energy production, mechanical engineering, chemicals, food industry and automobile production.



The demographic profile for Hungary shows a shrinking, aging population. The median age is 44.8 years and only 14.6% is under the age of 15. The total fertility rate is 1.59 births per woman, less than the replacement rate of 2.1 and the population is shrinking at 0.33% per year. The life expectancy at birth for both sexes is 75.3 years.

**Figure 2 – Demographic Profile of Hungary**  
[Credit: U.S. Census Bureau, International Database, public domain](#)

## Geology



### Abbreviations

- Db = Danube Basin,
- TDR = Transdanubian Range,
- NHM – North Hungarian Mountains,
- Vb = Vienna Basin,
- Sa = Sava Subbasin,
- Dr. = Dráva Subbasin,
- Ki = Kiskuhalas Subbasin,
- Ma = Makó Subbasin,
- Be = Békés Subbasin, Jászág Subbasin,
- Sb = Styrian Subbasin,
- Sze = Szeged Subbasin

**Figure 3: “a” Tectonic map of the Pannonian Basin system and “b” composite cross-section through the southern parts of the basin**  
[Credit: Figure 10 in Balázs et al, 2021, Creative Commons CC-BY-NC-ND](#)



**Figure 4 – Miocene Pannonian Sea**  
 Credit: [Pannonian\\_sea01.png](#); public domain

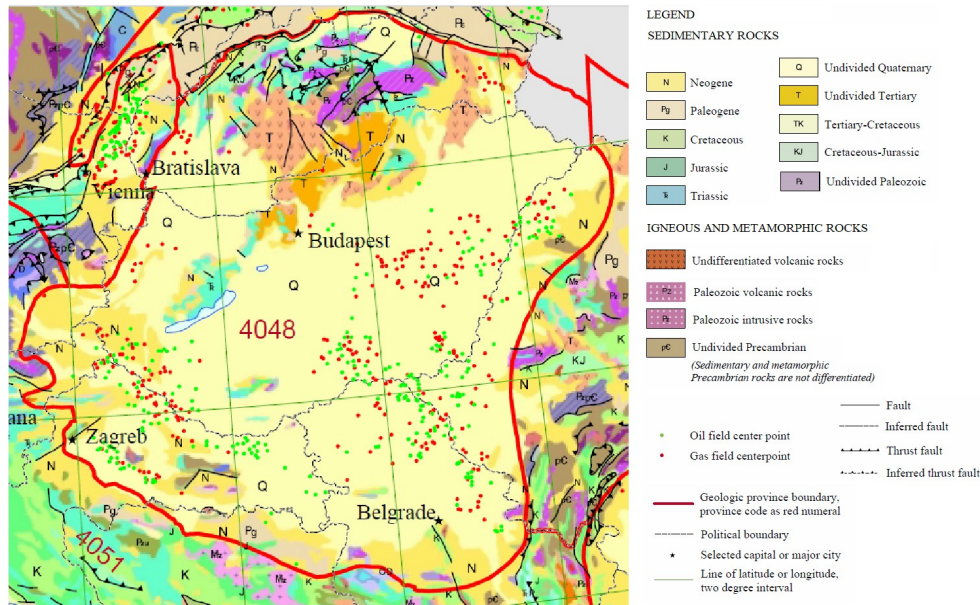
Tectonically, the [Pannonian Basin of Central Europe](#) is a continental extensional [back-arc basin](#). The basin was formed during the [Miocene](#). When the [Carpathian Mountains](#) during the [Alpine Orogeny](#) the Earth's crust was essentially pulled apart between the Carpathians to the north and the [Dinaric Alps](#), to the south with the Pannonian Basin forming in between. The [Pannonian Sea](#) formed and clastic sediments washing off the surrounding highlands filled up the basin during [Pliocene](#) and [Quaternary](#) times.

For more information on the tectonic development of the Pannonian Basin check out:

Pánisová J, M, Bielik, M. Huraiová, D. Godová, V. Bezák, P. Konečný, V. Hurai; February 2025, *Insight into the continental lithosphere using 3D geophysical and petrological modelling: An example from the Novohrad-Gemer region (Pannonian Basin, Slovakia-Hungary)*, Global and Planetary Change, Volume 247, <https://doi.org/10.1016/j.gloplacha.2025.104735>.

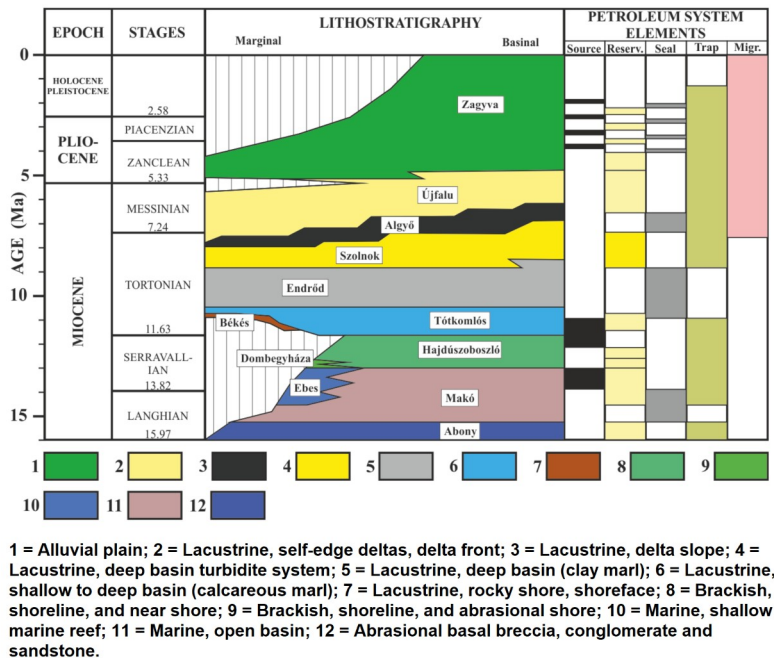
Balázs, A., L. Maţenco, D.Granjeon, K. Alms, T. François, and O. Sztanó, January 2021, *Towards stratigraphic-thermo-mechanical numerical modelling: Integrated analysis of asymmetric extensional basins*, Global and Planetary Change Volume 196, Elsevier, <http://dx.doi.org/10.1016/j.gloplacha.2020.103386>.

Figure 5, below, was extracted from: Pawlewicz, M.J., Steinshouer, D. W., Gautier, D.L., 2002, *Map showing geology, oil and gas fields, and geologic provinces of Europe including Turkey*: U.S. Geological Survey Open-File Report 97-470-I, 14 p., <https://doi.org/10.3133/ofr97470I> and shows the [geology of Hungary](#) and the Pannonian Basin.



**Figure 5 – Geology of Hungary and the Pannonian Basin**  
**Credit: extracted from Pawlewicz et al, 2002, public domain**

Figure 6 shows the stratigraphic column of Hungary.



**Figure 6 – Stratigraphic and petroleum system elements chart of the Pannonian Basin**  
**Credit: Figure 3 in Nagy et al, 2021, CC BY 4.0**

## Resources

### Agriculture



Figure 7 – Farm near [Hódmezővásárhely](#) in 1982

Credit: [Creative Commons Attribution-Share Alike 3.0 Unported](#) license

According to the CIA World Factbook, 58.9% of the land area in Hungary is agricultural (48.5%, arable land, 2% permanent crops, 8.4% permanent pasture). Of the remainder, 22.5% is forest and 18.6% is something other. Also according to the World Factbook, agriculture accounts for 4.7% of the Hungarian GDP. The top ten agricultural products of Hungary, based on tonnage produced, are wheat, maize, milk, barley, sunflower seeds, rapeseed, sugar beets, pork, grapes (for Hungarian wine), and apples.



Figure 8 – Bottle of Hungarian Wine

Credit: [Pazit Polak](#), [Creative Commons Attribution-Share Alike 2.0 Generic](#) license

One of Hungary's most famous products is their [wine](#), of which 2.4 million hectolitres (= 240,000 cubic metres) were [produced](#) in 2023. Although widely sold throughout Europe, the Hungarians consume much of what they produce. A 2019 estimate of per capita alcohol consumption in Hungary from the World Factbook, expressed as pure alcohol equivalent, was 3.96 litres from beer, 3.33 litres from wine, and 3.5 litres from spirits.

As a member of the European Union (EU), Hungary is also part of the [Common Agricultural Policy](#) (CAP). Recently, the EU approved Hungary's [CAP Strategic Plan](#). The Hungarian government has said that they want the CAP to be "[farmer centred](#)" partly due to last year's [protests against the CAP](#).

Statistics on agricultural production in Hungary, from the United Nations Food and Agriculture Organization (FAO) can be found [here](#). Although a wealthy country, [the FAO](#) reports that 15% of the Hungarian population suffers from moderate to severe food insecurity. On the converse, the FAO also reports that 31.7% of the Hungarian population suffers from obesity.

### *Forestry*



**Figure 9 – Beech Forest Mátra in Winter**

**Credit: [Susulyka](#), [Creative Commons](#) Attribution-Share Alike 4.0 International, 3.0 Unported, 2.5 Generic, 2.0 Generic, and 1.0 Generic license**

According to the World Factbook, 22.5% of the land in Hungary is covered by forest. All of Hungary falls into the [Pannonian mixed forest](#) eco-zone. Typical tree species in the lowlands with this zone are hardwoods such as oak ([Quercus pubescens](#), [Quercus cerris](#), [Quercus frainetto](#)), ash ([Fraxinus ornus](#), [Fraxinus excelsior](#)), [hornbeam](#), [sycamore](#), [crab apple](#), [wayfaring tree](#), [linden](#), [horse chestnut](#), [buckthorn](#), [walnut](#), [bird cherry](#), and [hazel](#).

In higher elevation areas typical species include hardwoods such as [beech](#), birch ([Betula pendula](#), [Betula pubescens](#)), and [aspen](#). Conifers found in highland areas include [fir](#), [spruce](#), pine ([Pinus sylvestris](#), [Pinus nigra](#)), [yew](#), and [juniper](#). Statistics on Hungarian forestry production from the FAO can be found [here](#).

## Mineral Resources



**Figure 10 –Stibnite from Hungary**

**Credit: Robert M. Lavinsky, [Creative Commons Attribution-Share Alike 3.0 Unported](#) license**

The [mineral industry in Hungary](#) includes metallic minerals, industrial minerals and fuel minerals – coal, oil, and natural gas. The [Diggings](#) website indicates that there are 39 present or former mine sites in Hungary and that commodities produced include aluminum, iron, manganese, copper, and lead.

Metallic mineral mining in Hungary includes the [Bakony Bauxite Mines](#) at [Veszprem Megye](#); manganese, iron and silica are [also produced](#) at Veszprem Megye. Bauxite, cobalt, copper, gold, and cadmium mines [located in the Pest region](#). Two bauxite mines are located in the [Fejer region](#) and two more bauxite mines are in the [Komarom-Esztergom region](#). Copper and iron mines located in [Salgotarjan region](#).

Industrial mineral mining includes: the bentonite and clay mines at [Egyhazaskeszo](#) and [Felsopeteny](#); a perlite mine at [Palhaza](#); a silica sand from a mine at [Fehérvárcsurgó](#); and a zeolites mine in the [Hegyalla](#) region, also called the Tokay wine region.

Coal is or was produced at: the [Thorez](#) opencast lignite mine at Visonta; the open pit lignite mine at [Bukkabrany](#); the [Pécs-Vasas](#) open pit coal mine; and the [Markushegy Mine](#) at Oroszlany



Hungary has a cold continental climate ([Dfa](#), [Dfb](#)) but with areas of arid steppe ([Bsk](#)). The [study](#) referenced in the credits for Figure 12 also projects, that areas of Hungary will see temperate climates ([Cfa](#), [Cfb](#)) due to climate change; that is why those climate zones are in the legend.

As a modern developed country, Hungary looks like a pleasant place to visit, the Hungarian Tourism Agency gives some excellent suggestions [here](#). You might also want to check the travel advisories [here](#) and [here](#); essentially the advice is to take normal precautions for a country in the developed world. If you go, the [Climates to Travel](#) and [Lonely Planet](#) sites are also worth checking out – and be careful with the [beer, wine, and spirits](#).

## History and Geopolitics

### History



Figure 13 – The Hungarians at Kiev

Credit: [Pál Vágó](#) (1853–1928), in the [Hungarian National Gallery](#), public domain

Rather than go into deep detail on the [history of Hungary](#), I'll give links to discussions on the main events in that history. You can follow up on those subjects that interest you.

- [The Carpathian Basin before the Hungarian conquest](#) including [Roman Pannonia](#) and [the Huns](#).
- Early medieval history includes: [the Gepids](#) (454–567); [the Ostrogoths](#) (469–553); [the Avars](#) (567–822); and the Magyar [invasions](#) and [conquest](#) (800–970).
- Later medieval history includes: the [Hungarian Principality](#) (895–1000); the Kingdom of Hungary ([1000–1301](#) and [1301–1526](#)), the [Mongol invasion](#) (1241–1242); and the wars with the [Ottomans](#) (1366–1526).
- Early modern history includes: the [Protestant Reformation](#) (1520); more [wars with the Ottomans](#) (1526–1699); the [Eastern Hungarian Kingdom](#) (1526–1570); [Royal Hungary](#) (1526–1699); the [Ottoman rule in Hungary](#) (1541–1699); and the [Kingdom of Hungary](#) (1699–1867).

- Late modern history includes: the [1848 Revolution](#) (1848–1849); the [Austro-Hungarian Monarchy](#) (1867–1918); [World War I](#) (1914–1918); the [Interwar period](#) (1918–1941); and [World War II](#) (1941–1945).
- Post WWII history includes: the [Second Hungarian Republic](#) (1946–1949), the [Hungarian People's Republic](#) (1949–1989), the [1956 revolution](#), the [Third Hungarian Republic](#) (1989–2012); and the various governments of Viktor Orbán ([1998–2002](#), [2010-2014](#), [2014-2018](#), [2018-2022](#), [2022 – present](#)).

### *Geopolitics*



**Figure 14 – Hungarian Parliament Building**

**Credit, [Creative Commons Attribution-Share Alike 3.0 Unported](#) license**

You can listen to an interview with Hungarian Prime Minister Viktor Orbán [here](#) where he discusses his views on Hungarian geopolitics.

As a developed country, Hungary’s main internal challenge is dealing with day to day politics and keeping what is essentially a good thing going. They have a high standard of living and want to keep it that way. The demographics are worrying, their population is both aging and shrinking at 0.33% per year.

The big geopolitical challenges for Hungary are:

- The effect of conflicts outside Hungary;
- The consequent arrival and need to accommodate, refugees from those conflicts;
- Managing their relationship with the rest of the European Union (EU); and
- Dealing with the rest of the world.

The Hungarians are uncomfortably close to the [War in the Ukraine](#). Obviously, the Hungarians would rather not have the Ukraine war spill over into their own territory, they have bad memories of the last time

the Russians were in town. The Hungarians have been [active diplomatically](#) in seeking an end to the war and even [accusing other parties](#) of not wanting the war to end.

However, please note that Hungary has an interest [in a part of Ukrainian territory](#) that they claim as properly belonging to the Hungary. To be fair, Hungary is not alone in [wanting a piece of the Ukraine](#). So, Hungary has a stake in the settlement of the Ukraine War.

Another question is what to do with the [refugees from conflicts in Ukraine](#) and elsewhere? Many Hungarians sympathize with the plight of the refugees and remember when Hungarians fled their country in 1956. Still, there is a concern that the refugees are disruptive and an increasingly unacceptable burden on their hosts. While accused of being a “far right” populist, Prime Minister Orbán is probably simply [channeling the frustration](#) he notices among his people with these visitors. Hungary is not alone in having problems with refugees, it is a [concern](#) throughout the EU. This situation is well worth keeping an eye on.

Hungary’s relationship with the [rest of the EU has been difficult](#), to say the least. While the bureaucrats of Brussels seem to be constantly seeking ways to further regulate people’s affairs, the Hungarian government, especially under Prime Minister Orbán, is determined to maintain Hungarian independence within, what they see, as a convenient economic union. Having been part of the Communist Warsaw Pact, a *de facto* Soviet Empire, Hungarians are in no mood to substitute the “faceless bureaucrats” of the Kremlin for similarly faceless administrators from Brussels. It is an interesting process since the efforts of Hungary, and other nations in the EU, will determine whether or not the EU will be the [Universal State](#) for Western Civilization (as [Arnold Toynbee](#) would put it) or whether the EU will simply be a the convenient economic arrangement that independent minded places like Hungary would rather have it be.

The role of the EU may also change as the United States, under [President Donald Trump](#), seeks to [change its relationship with Europe](#) and evidently get out of the business of being the [World’s Policemen](#). The challenge to the EU, and its member states, will be to work on their [collective security](#) while preserving their national independence. Coalition military arrangements are nothing new in Europe, so they should be able to manage it.

The wider world also affects Hungary. Refugees from conflicts in the Middle East and Africa are making their way to the EU and Hungary. [They are not always welcome](#). This situation, in both Hungary and the rest of the EU, is also worth watching.

Finally, there is Russia and its relationship with the countries of the EU and especially those in Eastern Europe, such as Hungary. While the East Europeans are suspicious of Russian ambitions, its not like they haven’t had a bad history with the Russians, they also [depend on Russia](#) for natural gas energy. Energy that makes their comfortable way of life possible. This geopolitical reality shapes Hungary’s present and future relationship with Russia. Both sides want the trade and the Hungarians, as well as the rest of Eastern Europe, would like to keep it a [good business relationship](#). Another thing to keep an eye on in the coming years.

That winds up this short look at Hungary. I am optimistic for the country, they have developed their people and well equipped to face the coming challenges. All you need is good people.

## Standard Caveat

### [J. Robert Oppenheimer on freedom and scientific inquiry](#)

The purpose of my weblog postings is to spark people's curiosity in geology. Don't entirely believe me until you've done your own research and checked the evidence. If I have sparked your curiosity in the subject of this posting, follow up with some of the links provided here. If you want to, go out into the field and examine some rocks on your own with the help of a good field guide. Follow the evidence and make up your own mind.

In science, the only authority is the evidence.