

January 20, 2025

News and notes

Before going on to discuss the geology and geopolitics of [Guinea-Bissau](#), 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.

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](#): new upload available, [Basic Hydrogeology – An Introduction to the Fundamentals of Groundwater Science](#).
- Free Groundwater Modeling Course – [HydroGeoCenter](#).

Geopolitics

- Consequences: [Frozen Future? Europe's Energy Crisis Worsens Amid Gas War](#).
- Gaza war: [Netanyahu Says Trump "Emphasized" To Him That The Gaza Ceasefire Is "Temporary"](#).
- Climate change, finance, and geopolitics: [Climate Change Coalitions Begin to Crumble – major North American financial institutions with significant announcements](#).
- More on climate change and geopolitics: [Greenland's melting ice is clearing the way for a mineral 'gold rush'](#).
- From the Wall Street Journal: [In a New Age of Empire, Great Powers Aim to Carve Up the Planet](#).
- Managing democracy: [The man who deserves but probably will not be allowed to lead Romania](#).
- [Research and development for the Rare Earth Element supply chain in Europe](#).
- [Europe must take responsibility for its own security, says Polish minister](#); related story [here](#).
- [Halt illegal imports of conflict minerals from DRC, campaigners urge EU](#).
- [Russia Takes Control of Ukrainian Lithium Mines](#).
- [Oil Embargo on the U.S. Could Blow Up in Canada's Face](#).

- How are those sanctions working out? [LNG vessels due to load at sanctioned Russian terminals set for Europe, Asia, data shows.](#)
- [China's iron grip on critical minerals puts US in 'unfathomable' national security bind: experts.](#)

Research and News

- Is Geology racist? [Black Coal, White Guilt: Mining the Dark Depths of 'Anti-Racist' Geology](#); it looks like pseudoscience to me but make up your own mind based on the evidence.
- From the Science Fridays podcast: [Why Editors At Scientific Journals Are Resigning En Masse.](#)
- [Winter 2025 Issue of NM Earth Matters](#), from the New Mexico Bureau of Geology & Mineral Resources.
- Geophysics: [A two-phase two-component slurry model of the F-layer at the base of Earth's core.](#)
- Sedimentology: [Late Cretaceous aeolianites in South China: Implications for palaeowind systems and palaeoclimate.](#)
- Plate tectonics and geophysics: [Probabilistic estimation of rheological properties in subduction zones using sequences of earthquakes and aseismic slip.](#)
- More plate tectonics: [Faulting styles imprinted on geomorphic features: Insights from morphometric analysis and paleostress tensors in the Western Andean Front \(35°S–38°S\), Chile.](#)

Planetary Geology

- [Meteoritic and asteroidal amino acid heterogeneity: Implications for planetesimal alteration conditions and sample return missions.](#)
- [Wave ripples formed in ancient, ice-free lakes in Gale crater, Mars](#); Phys.org summary [here](#).
- Not quite an [earth shattering](#) kaboom: [P.E.I. homeowner captures sound and video of meteorite strike on camera, and scientists believe it's a first.](#)

Paleontology

- Mass extinction research: [Reduced contribution of sulfur to the mass extinction associated with the Chicxulub impact event](#); Phys.org summary [here](#).
- [Environment of European Last Mammoths: Reconstructing the Landcover of the Eastern Baltic Area at the Pleistocene/Holocene Transition.](#)
- Essay: [Who Killed the Megafauna?](#)
- [Tianzhenosaurus chengii, a new species of ankylosaur from the Late Cretaceous of Tianzhen, Shanxi](#) (in Chinese); SciNews summary [here](#).
- [Professor Lamarck](#), your office called: [A new vision for how evolution works is long overdue.](#)
- [Beyond Evolution: Alfred Russel Wallace's critique of the 19th century world.](#)

- [Burrow collapse is not the only explanation for rapid, noncatastrophic preservation of 3D dinosaurs.](#)
- [A Quarry Worker Felt Strange Bumps While Digging. They Turned Out to Be the Largest Dinosaur Trackway in the U.K.](#)

Mining and Energy

- [Op-Ed: Government of Saskatchewan says coal has a future.](#)
- Transport difficulties in Australia: [Rio Tinto's iron ore shipments slip, sees global economic resilience.](#)
- [‘A viable business’: Rolls-Royce banking on success of small modular reactors.](#)
- [Why Mali just seized 3 tons of gold from Canadian miner Barrick; related: Barrick begins temporary suspension of operations at mining complex in Mali.](#)
- Manitoba: [Alamos Gold starts clock on Lynn Lake mines.](#)
- [Atlas to develop Newfoundland's Great Atlantic Salt deposit.](#)
- [Labrador's Kami iron ore project getting \\$245M from Japanese investors.](#)
- [Rescuers attempt to bring out survivors among hundreds trapped in a South African mine.](#)
- [Interpol cracks down on illegal mining in West Africa as police make 200 arrests.](#)
- Ontario: [Premier wants critical minerals production accelerated.](#)
- [Snow Lake Discovers Gallium in Ontario: A Critical Mineral Driving AI and Data Center Advancements.](#)
- Thorium molten salt breeder reactors: [Copenhagen Atomics Progressing to Mass Production of Molten Salt Nuclear Reactors.](#)
- Petroleum geology: [Buried Pockmarks Associated With Listric Faults of Salt Minibasins \(Espírito Santo, SE Brazil\): Evidence for Local Hydrocarbon Escape Since the Miocene.](#)

Environmental Geology and Hydrogeology

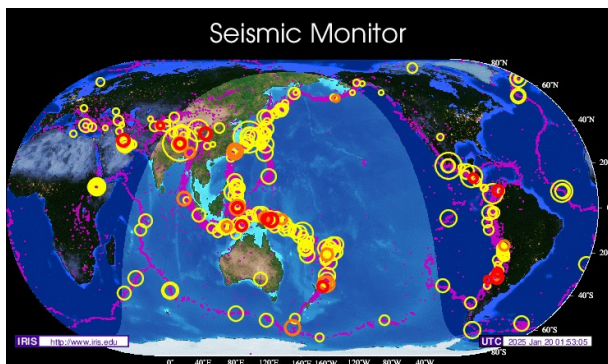
- Groundwater, [Developing in southwest Kitchener: ‘It’s distressing to be building housing on top of our scarce water resources’.](#)
- [Hydroclimatic extremes threaten groundwater quality and stability; Phys.org summary \[here\]\(#\).](#)
- [Herbicide under US scrutiny over potential Parkinson's link.](#)
- [Bloodletting recommended for Jersey residents after PFAS contamination.](#)
- [Socioeconomic Disparities in Exposures to PFAS and Other Unregulated Industrial Drinking Water Contaminants in US Public Water Systems; Phys.org summary \[here\]\(#\).](#)

- [Canadian scientists have found a way to trap ‘forever chemicals’.](#)
- [RAF bases are hotspots of ‘forever chemical’ groundwater pollution, MoD documents show.](#)
- [How Much of the World’s Plastic Waste Actually Gets Recycled?](#)
- Oregon groundwater: [State shifts in the deep Critical Zone drive landscape evolution in volcanic terrains](#); SciTechDaily summary [here](#).
- [Global estimates of the storage and transit time of water through vegetation](#); Phys.org summary [here](#).
- [Origin and fate control of F, As and U in groundwater flow systems of the Sierra Madre Occidental and Mesa Central, Mexico.](#)

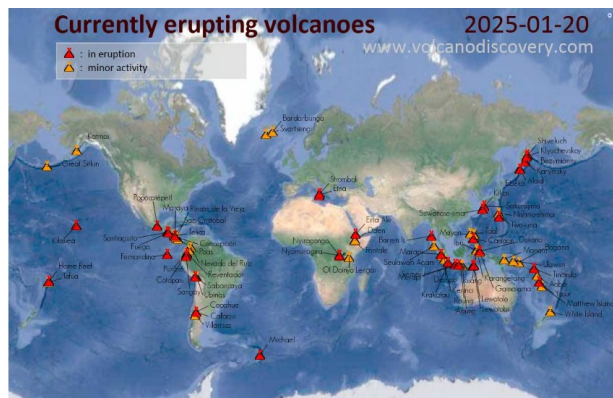
Glaciers and Climate Change

- [How Ice Ages and Shifting Climates Shaped the Evolutionary Journey of Early Humans](#); links to supporting papers [here](#) and [here](#).
- [Permafrost in climate change: Models predict Arctic's response to global warming.](#)
- [Discovery of Laacher See eruption in speleothem record synchronizes Greenland and central European Late Glacial climate change](#); Phys.org summary [here](#).
- [Melting glaciers are reshaping landscapes and national borders around the world.](#)

Volcanoes, Earthquakes and Geohazards



[Seismic Monitor](#)



[Active Volcano Map](#)

Volcanoes

- United States Geological Survey (USGS) Volcano Watch: [Peering into a crystal ball: What tiny crystals can tell us about their trip through the magma chamber.](#)
- USGS Yellowstone Volcano Observatory: [An Electromagnetic View of How Magma is Stored beneath Yellowstone.](#)

- [Smithsonian / USGS Weekly Volcanic Activity Report](#).
- Bárðarbunga: [Alarm Raised Over Iceland's Second-Largest Volcano: Disruption Possible](#).
- Video: [Kilauea's Fourth Eruptive Phase Begins! Geologist Analysis](#).
- Research: [Insights into magma dynamics from daily OP-FTIR gas compositions throughout the 2021 Tajogaite eruption, La Palma, Canary Islands](#).

Earthquakes

- [Euro-Mediterranean Seismological Centre \(EMSC\)](#).
- [Earthquakes Monitoring Live Worldwide](#).
- [M6.8 earthquake shakes Kyushu, Japan; USGS summary \[here\]\(#\)](#).

Los Angeles Wildfires

- [A timeline of the devastating Los Angeles wildfires as they continue to burn](#).
- [Stories About People Who Saved Their Homes During the Los Angeles Fires, or Died Trying](#).

Upcoming Events

- From the U.K. Mining Remediation Authority: February 4, 5, & 6 [Webinars to shine a light on low-carbon heating from mine water](#)
- [Williston Basin Petroleum Conference, April 28-30, Regina Saskatchewan](#).
- European Geosciences Union: [EGU General Assembly 2025, Vienna, Austria & Online 27 April–2 May 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](#).

January 20, 2025

Geology and the Fate of Societies – Guinea-Bissau



Figure 1a – Guinea-Bissau

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

Figure 1b – Location of Guinea-Bissau

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

The [Republic of Guinea-Bissau](#) (*República da Guiné-Bissau* in Portuguese) is a small poor country on the Atlantic coast of [West Africa](#). To the north, Guinea-Bissau borders on [Senegal](#), and to the southeast, it borders on [Guinea-Conakry](#), which we looked at [two weeks ago](#). Guinea-Bissau is a [unitary semi-presidential republic](#); the President is [Umaro Sissoco Embaló](#) and the Prime Minister is [Rui Duarte de Barros](#). The legislature is the [Assembleia Nacional Popular](#) (National People's Assembly). The Capital and largest city in Guinea-Bissau is [Bissau](#) (pop. ~492,000).

According to the [Central Intelligence Agency](#) (CIA) [World Factbook for Guinea-Bissau](#), the country has a total area of 36,125 square kilometres (km²), 28,120 km² of which is land, and 8,005 km² is water. Also according to the World Factbook, 2,132,325 people live in Guinea-Bissau, about 1/5 of whom live in the Capital. Of that approximately 2.13 million people: 30% are ethnic [Balanta](#); another 30% are [Fulani](#); 14% are [Manjaco](#); 13% are [Mandinka](#); 7% are [Papel](#); and the remaining 6% are from unspecified smaller ethnic groups 6%. [Portuguese](#) is the official language, however, [Guinea-Bissau Creole](#) is the most commonly spoken language. Each of the various ethnic groups also have their own languages.

In terms of religion, [Islam](#) is the most common faith, followed by 46.1% of Bissau-Guineans. Of the remainder: 30.6% follow [traditional folk religions](#); 18.9% are [Christian](#); and the remaining 4.4% are something other or unaffiliated. In terms of education; only 52.9% of the population age 15 and over can read and write. Economically: the per capita [GDP](#) is \$3,088 in terms of [PPP](#); the Gini coefficient is 33.4, indicating medium inequality; and the [Human Development Index](#) low at 0.483.

Statistics on merchandise trade for Guinea-Bissau can be found [here](#). This [site indicates](#) that Guinea-Bissau major trading partner countries for exports are India, China, Singapore, Vietnam and United Arab

Emirates and for imports they are Portugal, Senegal, Pakistan, China and Netherlands. The site also [indicates](#) that the major exports are Cashew nuts and wood; and that the major imports are broken rice, petroleum, Portland cement, flour and fermented beverages (got to have beer).

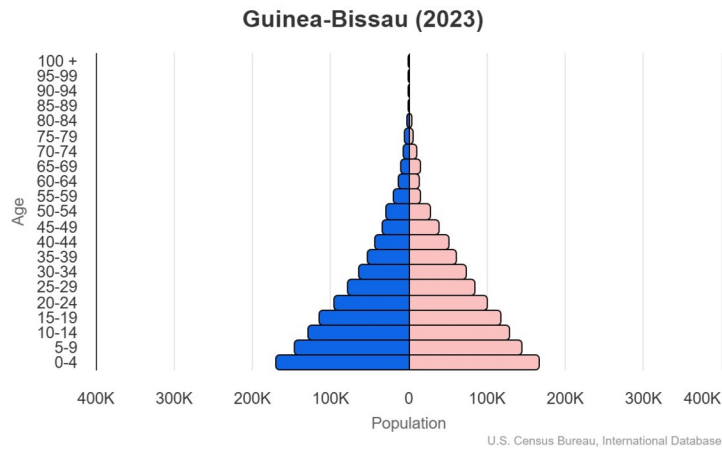


Figure 2 – Demographic Profile of Guinea-Bissau
Credit: U.S. Census Bureau, International Database, public domain

The [demographic profile of Guinea-Bissau](#) shows a young country, the median age is 18.4 years, and 42.3% of the population are less than 15 years old. The total fertility rate is 4.65 births per woman, well above the replacement rate of 2.1, and the resulting annual growth rate is 2.54%. Life expectancy at birth for both sexes is 64.1 years.

Geology



Figure 3 – Mesoproterozoic Cratons in South America and Africa
Credit: Woudloper, Creative Commons Attribution-Share Alike 3.0 Unported, 2.5 Generic, 2.0 Generic and 1.0 Generic license

Guinea-Bissau sits on the [West Africa Craton](#) and its tectonic history of includes two major [orogenies](#):

- The [Pan-African orogeny](#), which was a series of major mountain-forming events during the [Neoproterozoic](#) and that formed much of the [basement rocks](#) that also outcrop in the eastern part of Guinea-Bissau; and
- The [Mauritanide Orogeny](#) that was active during the [Paleozoic](#) Era and formed the Paleozoic aged metamorphic rocks found in the basement and outcrops in the east of the country.

These two orogenies during the Paleozoic and Neoproterozoic formed the rocks that now make up the [Fouta Djallon Massif](#) and were part of the assemblage of the supercontinent [Pangaea](#).

The West Africa Craton was part of the supercontinent Pangaea and, later, [Gondwana](#), after the [breakup of Pangaea](#) during the [Triassic Period](#). The West Africa Craton broke away from the [Amazonian](#) and [São Luis](#) cratons during the [Jurassic Period](#), as part of the [tectonic breakup of Gondwana](#). The tectonic opening of the Atlantic Ocean during the Mesozoic Era formed the conditions that led to the deposition of the [Senegal Basin](#) in the western part of the country.

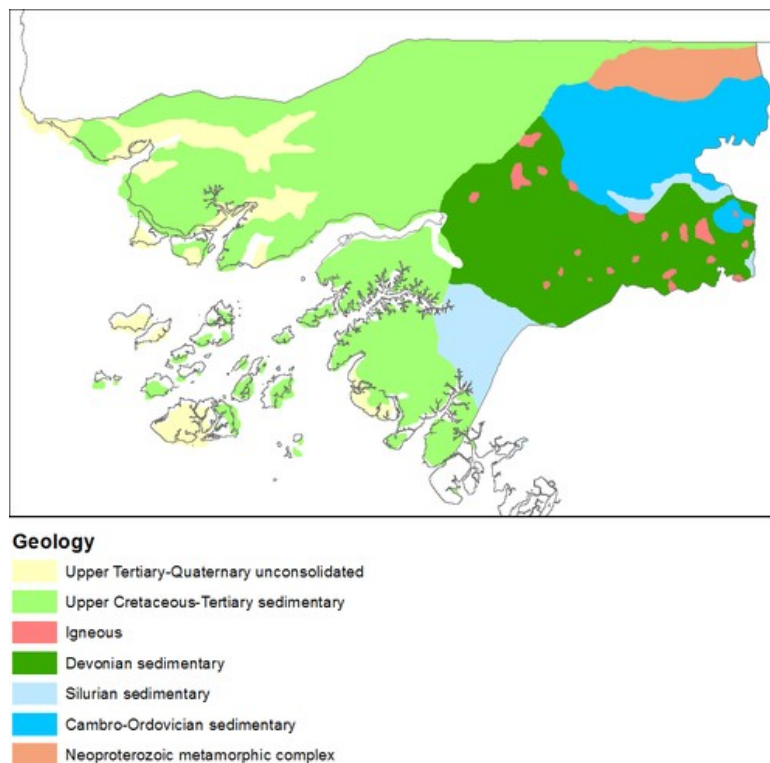


Figure 4 – Geology of Guinea-Bissau

Credit: [British Geological Survey, Hydrogeology of Guinea Bissau, public domain](#)

The [geology of Guinea-Bissau](#) consists of two main zones:

1. A zone of predominantly [clastic](#) sedimentary Paleozoic rock with some [Precambrian](#) rocks in the eastern part of the country; and
2. A zone of younger, mostly marine, sediments, ranging in age from [Cretaceous](#) to [Quaternary](#), associated with the Senegal Basin.

Breaking it down further, the [geological units](#) shown in Figure 4 are as follows, going from the youngest to the oldest:

Upper Tertiary-Quaternary unconsolidated. The youngest sediments are Quaternary aged coastal sediments such as beach sands and alluvial deposits. The Quaternary deposits often overlie older lagoon and coastal sediments.

Upper Cretaceous-Tertiary sedimentary. The next oldest group range in age from [Tertiary \(Neogene and Paleogene\)](#) to [Upper Cretaceous \(Maastrichtian\)](#) and consists of various marine, coastal or lagoon sedimentary deposits in the western part of the country, these include:

- A sequence of marine sediments, [Paleocene](#) to [Eocene](#) in age, mostly consisting of sandy [marl-limestone](#) with interbedded [dolomitic](#) deposits;
- A '[continental terminal](#)' series consisting of fine grained, [Oligocene](#) aged lagoon deposits, overlain by [Miocene](#) aged marine aged limestone-marls that are sometimes sandy; and
- A very thick (up to 1360 m) sequence of Cretaceous rocks; the base of which are [schists](#) with some interbedded limestone and [dolomite](#); these are overlain by a thick layer of Maastrichtian aged [sandstone](#), up to 540 m thick.

Igneous. In the east of Guinea-Bissau are older deposits ranging in age from Paleozoic to Neoproterozoic. Within this group are igneous intrusions, about which little has been published, but which are presumably younger than the deposits they intrude.

Devonian sedimentary. The [Devonian](#) aged deposits consist of [shale](#) and sandstone deposits running along northwest/southeast [strike](#) in a trough or [syncline](#). At the bottom of the series, [Lower Devonian](#) in age, are well-consolidated [micaceous](#) and [feldspathic](#) sandstones. The top of the sequence, [Middle](#) to Upper Devonian ([Frasnian](#) to [Famennian](#)) in age is the [Bafata Group](#) consisting of [argillaceous](#) schists (sometimes called shale) interbedded with minor fine grained [quartz](#) sandstone.

Silurian sedimentary. The [Silurian](#) aged deposits consists of sandstones with some black [carbonaceous](#) shales of the [Buba Group](#). In the southeast part of Guinea-Bissau are some black carbonaceous schists with minor interbedded fine grained sandstone and some layers of [dolerite](#). In the northeast, the rocks of the Buba Group are schists interbedded with dolerite with varying indications of metamorphism, and fine grained, clay-rich sandstones.

Cambro-Ordovician sedimentary. This unit consists of sandstones, shales, [conglomerates](#) and rare limestones. These are found in the northeast of the country, overlying older Neoproterozoic metamorphic rocks. The [Ordovician](#) rocks consist of two formations: the Canjufa-Canjadude series of [quartz-arenites](#) and the [Gabu Sandstone](#) series. The [Cambrian](#) aged rocks are generally fine grained sandstones and shales of the [Pirada](#), Canquelifa, [Cantari](#), and [Caium](#) formations.

Neoproterozoic metamorphic complex. This unit is a mixture of volcanic and [metasedimentary](#) rocks including schists, [quartzites](#) and [metavolcanic](#) rocks.

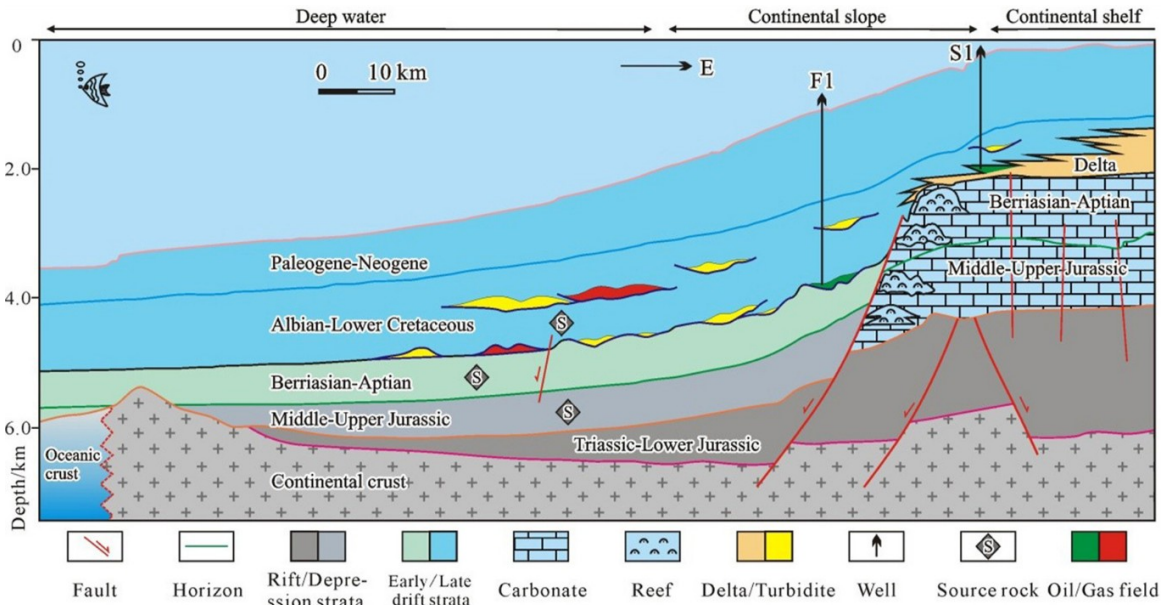
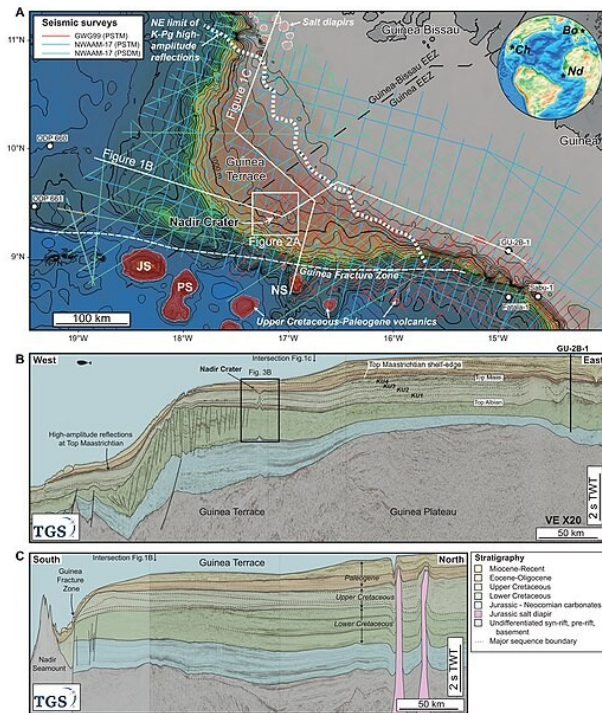


Figure 5 – Cross-section of the Offshore Senegal Basin
Credit: Graphical Abstract of [Tian et al, 2024](#)

An important part of the geology of Guinea-Bissau lies in the offshore Senegal Basin. A 2003 [study by the USGS](#) identified the Basin as having great potential for new petroleum development. A [more recent paper](#) elaborates on what is known about the geology of the offshore portion of the Senegal Basin; Figure 5, above, is the graphical abstract from that paper. An interesting feature is the [Jurassic](#) aged carbonate deposits underlying the Cretaceous units; the Cretaceous carbonates are found in outcrop onshore but the Jurassic aged ones are not.



One interesting result of the exploration offshore of Guinea-Bissau was the discovery of the [Nadir impact structure](#) that appears to have happened around the same time as the famous [Chicxulub crater](#) at or near the [Cretaceous–Paleogene boundary](#) 66 million years ago.

You can read the scientific paper detailing the Nadir Crater [here](#).

Figure 6 – Map and regional seismic sections showing location of Nadir Crater, Credit: Figure 1 in [Nicholson et al, 2022](#), [Creative Commons Attribution-Share Alike 4.0 International](#) license

Resources

Agriculture



Figure 7 - Boys Working with Rice Harvest in Guinea-Bissau

Credit: Fernanda.nossa, [Creative Commons Attribution-Share Alike 4.0 International](#) license

According to the CIA World Factbook on Guinea-Bissau, 44.8% of the land is used for agriculture (8.2% arable land, 6.9% permanent crops, 29.7% permanent pasture). The remaining 55.2% is forest. The main crops grown in the country are [rice](#), [peanuts](#), [cashews](#), root vegetables, [oil palm](#) fruit, [plantains](#), [cassava](#), vegetables, [sweet potatoes](#), and [coconuts](#). Cash crops grown for export include coconuts, [Brazil nuts](#), cashews, palm oil, and dried fruits. [Much of the rural population](#) is dependent on [subsistence agriculture](#). Livestock raised in Guinea-Bissau includes [cattle](#), [goats](#), [pigs](#), [poultry](#), and [sheep](#).

Economic statistics from the European Union on agriculture in Guinea-Bissau can be found [here](#). Production statistics from the [United Nations Food and Agriculture Organization](#) (FAO) can be found [here](#). Also [according to the FAO](#), 62.5% of the population suffered moderate or severe food insecurity in 2022-23. The FAO Country Brief on Guinea-Bissau with current conditions can be found [here](#).



Figure 8 – Repairing a Pirogue at Varela Beach, Guinea-Bissau

Credit: Joehawkins, [Creative Commons Attribution-Share Alike 4.0 International](#) license

Another source of food for the people of Guinea-Bissau is fishing, as you might expect from a look at the map and the islands in the [Bijagos Archipelago](#). Both small scale artisanal and large scale commercial fishing takes place in the country. The [artisanal fishery in 2018](#) consisted of 883 active pirogues employing nearly 5,600 fishers.

Much of the [commercial fishery is unlicensed](#), conducted by foreign fishing fleets, and their catch is unreported. [Unregulated fishing has substantial social and environmental costs](#). [One report](#) indicated that the foreign fishing vessels were from China, France, Spain, Comoros, Panama, Senegal, Portugal, Greece, South Korea, Guinea Conakry, Curaçao, Cabo Verde, Guatemala, and Belize.

The FAO profile on the fishing industry in Guinea-Bissau can be found [here](#).

Forestry



Figure 9 – Forest-Savanna with Termite Mounds
[Credit: Francofranco56, public domain](#)

Forests cover 55.2% of the land in Guinea-Bissau. The two main forest zones in the country are the [Guinean Mangrove Forest](#), in the western part of the country; and the [Guinean Forest-Savanna Mosaic](#) in the east.

The main varieties of tree in the mangrove swamps include [Rhizophora sp.](#), [Laguncularia racemosa](#), [Conocarpus erectus](#) and [Avicennia sp.](#) The mosaic forest-savanna is, as you might guess, a mixture of

forest and savanna. The forest areas contains [tropical hardwood](#) trees, [lianas](#), [epiphytes](#), and an understory of shrubs and herbs.

Statistics on forest production in Guinea-Bissau can be found [here](#). Export statistics for forest products can be found [here](#), [China is the biggest destination](#).

Mineral Resources

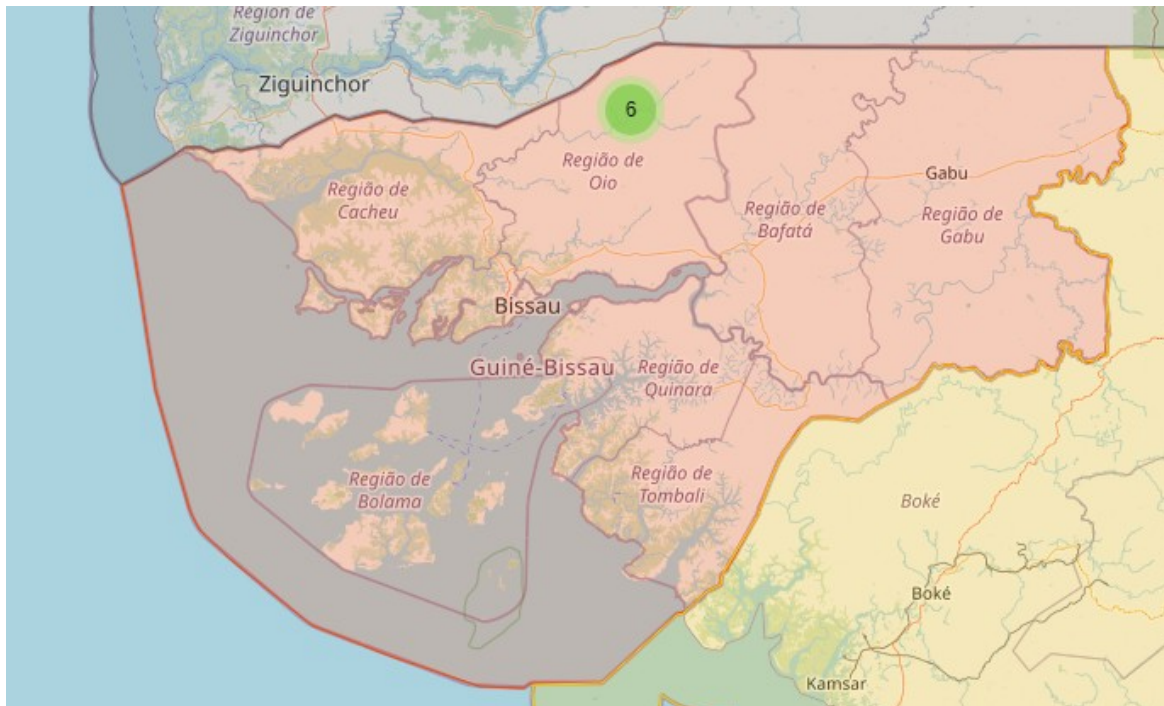


Figure 10 – Interactive Map of Mineral Occurrences in Guinea-Bissau
Credit: ©Mindat.org

The USGS 2019 report on [The Mineral Industries of Other Countries of Africa Benin, Cabo Verde, The Gambia, Guinea-Bissau, and Sao Tome E Principe](#) indicates that “bauxite, heavy sands, and phosphate may have been produced in Guinea-Bissau, but available information was inadequate to make reliable estimates of output or to determine the mineral sector’s contribution to the economy”. Earlier USGS reports ([2015](#)) have more information, as follows:

Bauxite deposits are found in the southeast part of the country in the [Boe region](#). Last year, Russian and Bissau-Guinean governments [announced plans](#) to cooperate in development of the resource.

Phosphates are mined at the [Farim deposit](#) operated by [Itafos Inc.](#), a Houston Texas based phosphate and specialty fertilizer company.

Petroleum. Currently there is no petroleum development in Guinea-Bissau, although there is [great potential](#) and the Russians have [promised to help](#).

Aggregate for construction is quarried by [Guinea Pedra 2012](#).

Figure 10, above, links to an interactive map of mineral occurrences in Guinea-Bissau.

Climate

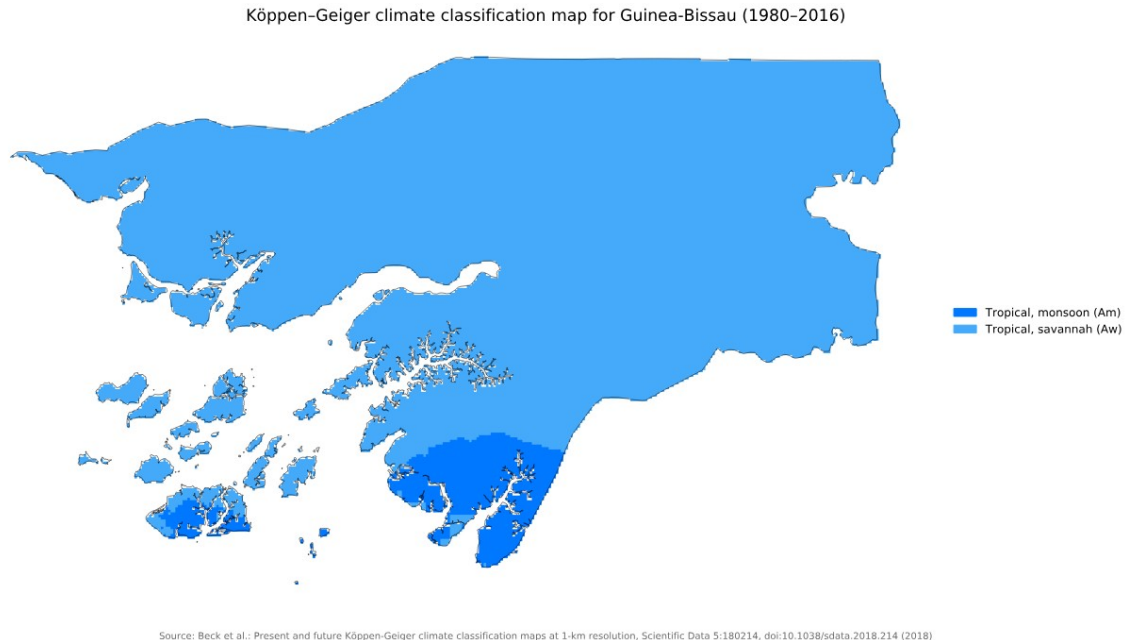


Figure 11 – Köppen-Geiger Climate Map for Guinea-Bissau
Credit: Beck et al, 2018, Creative Commons Attribution-Share Alike 4.0 International license

The climate of Guinea-Bissau is tropical ([Am](#) and [Aw](#)). It is generally hot and humid with a monsoonal-type rainy season (June to November) with southwesterly winds and a dry season (December to May) with northeasterly [harmattan](#) winds.

Now, you might want to visit Guinea-Bissau. Certainly the weather is better than what we are getting here where I live ([there was a nasty blizzard here on January 17](#)). [One site](#) considers Guinea-Bissau “the best kept secret of West Africa”.

However, before you go, you might want to check out the travel advisories [here](#) and [here](#). There is danger from high rates of crime and political instability. Both petty crime and banditry are common. The border region with Senegal is considered especially dangerous due to the activity of [Casamance rebels](#), who are engaged in a low-intensity conflict with the Senegalese government. Guinea-Bissau is a tropical country, so there are tropical diseases to worry about.

Still, if you want to go, check out [Climates to Travel](#) and [Lonely Planet](#).

History and Geopolitics

History, Empire and Independence

Check out this link for a detailed summary of the [history of Guinea-Bissau](#). I am going to present a brief discussion below.

Although people have lived in West Africa since the [Paleolithic](#), few historical records exist until the establishment of the [Mali Empire](#) in the 13th Century. An important event in the early part of the 2nd

Millennium BC was the [introduction of the Religion of The Prophet into the region](#). After the Mali Empire began to breakup, the [Kaabu Kingdom](#) took control of modern Guinea-Bissau in 1537.

Around the same time as the development of [state-level polities](#), the [Portuguese](#) began to establish trading posts along Guinea-Bissau's shoreline in the 16th Century. By the end of the 19th Century, Portugal was in effective control of Guinea-Bissau as the colony of [Portuguese Guinea](#). Portugal's main trading interests were in gold and [slaves](#). The slave trade ended in 1830, but the Portuguese still traded for gold and other commodities. An interesting tidbit is that the area in neighbouring Senegal where the Casamance rebels are active was formerly part of the Portuguese holdings. In 1974, Portugal granted Guinea-Bissau independence, after [considerable struggle](#).

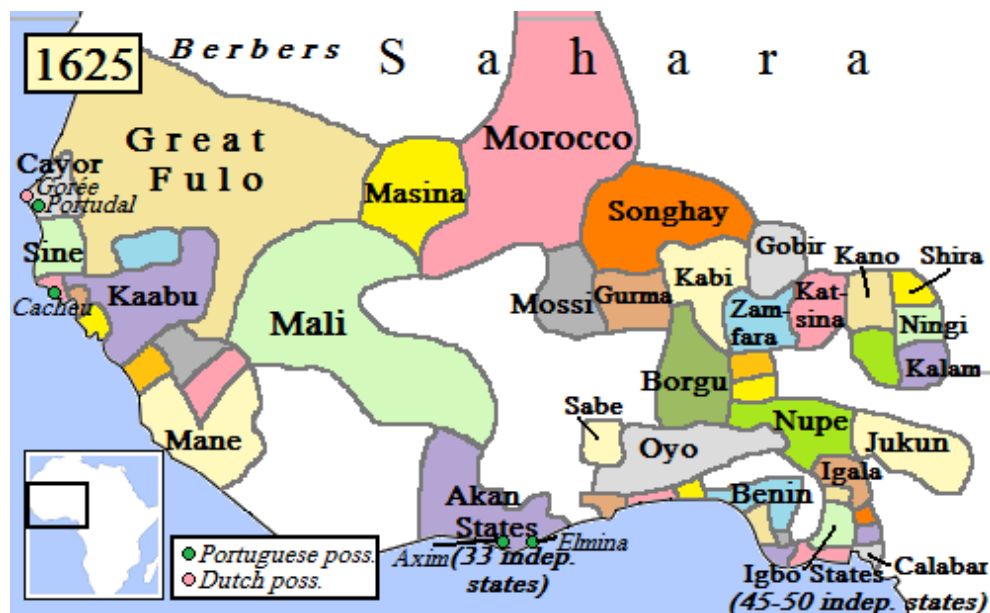


Figure 12 – West Africa in 1625

Credit: [Gabagool](#), [Creative Commons Attribution 3.0 Unported](#) license

The time since independence has not been peaceful:

- The first government, under [Luís Cabral](#) was overthrown in a [1980 coup d'état](#) led by General [Joao Bernardo 'Nino' Vieira](#).
- Vieira's government was marked by several coup attempts before a multiparty legislature was established in 1994 to give Vieira's government some legitimacy.
- In 1998, [civil war](#) broke out, leading to Vieira's ouster and his replacement by [Kumba Iala](#). Iala was in turn kicked out of office in [another coup d'état](#).
- Following the 2003 coup and an interim government, an [election was held in 2005](#). The winner was former president Vieira. He served a second term as President until he was assassinated in 2009. [Malam Bacai Sanha](#) won the subsequent election, only to die from diabetes in 2012.

- A [military coup](#) in 2012 blocked another election, but following the mediation by the [Economic Community of Western African State](#) (ECOWAS) a civilian transitional government assumed power.
- In 2014, [Jose Mario Vaz](#) was elected president, and notably, served out his full term till 2019 without being overthrown or assassinated.
- The current President, Umaro Embaló, was elected in 2019 and has also enjoyed a reasonably peaceful Presidency.

Geopolitics, a Small fish in a Big Ocean



Figure 13 – Presidential Palace Guinea-Bissau

Credit: [Colleen Taugher](#), [Creative Commons Attribution 2.0 Generic](#) license

The internal problems of Guinea-Bissau appear to be only barely under control. Maintaining law and order is a prerequisite to economic development and especially to peaceful human existence. Reducing corruption is another necessity, currently [Guinea-Bissau ranks 158/180](#) on Transparency International's Corruption Perceptions Index. They have many challenges if they want to break out of the [poverty trap](#).

One big challenge to Guinea-Bissau is found in the demographics of a young population - 42.3% of the population are less than 15 years old. This is also a potentially huge opportunity. If the government invests in the education of these young people, who knows what they could do? Raising the human development index would certainly be a good thing in its own right. These young people are the greatest resource the country has, but they need an education them to give them a chance at a better life.

The lack of an orderly government can also stall economic development, for example, Guinea-Bissau's bauxite deposits are unlikely to be developed until the people with money to invest can feel secure in their investments. The same goes for petroleum exploration and the development of transportation infrastructure. The chaotic exploitation of the offshore fishery by foreign actors is another failure attributable to the internal disorder in Guinea-Bissau.

Guinea-Bissau's relations with its neighbours in West Africa have are generally peaceful. ECOWAS has a positive influence in solving the inevitable disputes by diplomatic means and they are to be commended for their work in that field.

One problem facing Guinea-Bissau is the on-going revolt by the [Casamance rebels](#) in neighbouring Senegal. Guinea-Bissau has not been entirely innocent in this conflict. They have aided the rebels and allowed them to establish bases in Guinea-Bissau. The rebellion is currently a low-intensity conflict, but could blow up given sufficient incentive on one side or the other to do so.

Going further afield, [Russia](#) has maintained a [strong interest in Guinea-Bissau](#) ever since the old days of the [Soviet Union](#). They will probably maintain these relations, if only because of the [personal ties](#) developed over the years but also to get access to currently undeveloped resources.

Guinea-Bissau and [China](#) have also been developing a strong relationship, [too close some say](#). As usual, China is [interested in trade](#), especially for resources. [China is Guinea-Bissau's biggest trade partner](#). One irritant in this relationship is the participation of Chinese vessels in the uncontrolled harvest of fish offshore of Guinea-Bissau. Still, it can't be too irritating since the two parties recently announced a "[strategic partnership](#)" agreement. The big gain for Guinea-Bissau is a pledge to develop infrastructure, development of which is sorely needed.

Guinea-Bissau's former colonial master, Portugal, is now part of the [European Union](#) (EU). The EU maintains an [office for diplomatic relations](#) together with a program for [economic partnership](#) with Guinea-Bissau. Recently, the EU has pledged to an [agreement on sustainable fisheries](#), if it is meaningful it will be welcome. One irritant is that the EU [maintains sanctions](#) against individuals from Guinea-Bissau who were part of the many coup d'état.

The [United States](#) has little [interaction with Guinea-Bissau](#) and does not even maintain an embassy there. Maybe they've given up on the country.

As noted above, the countries receiving the largest exports from Guinea-Bissau are India, China, Singapore, Vietnam and United Arab Emirates. The countries selling the most merchandise to Guinea-Bissau they are Portugal (a member of the EU), Senegal, Pakistan, China and Netherlands (also a member of the EU). Each of these countries have an interest in what happens in Guinea-Bissau.

Overall, Guinea-Bissau has many challenges and difficulties. They are currently at peace, both internally and externally, so there is hope for the future.

Standard Caveat

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

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In science, the only authority is the evidence.