

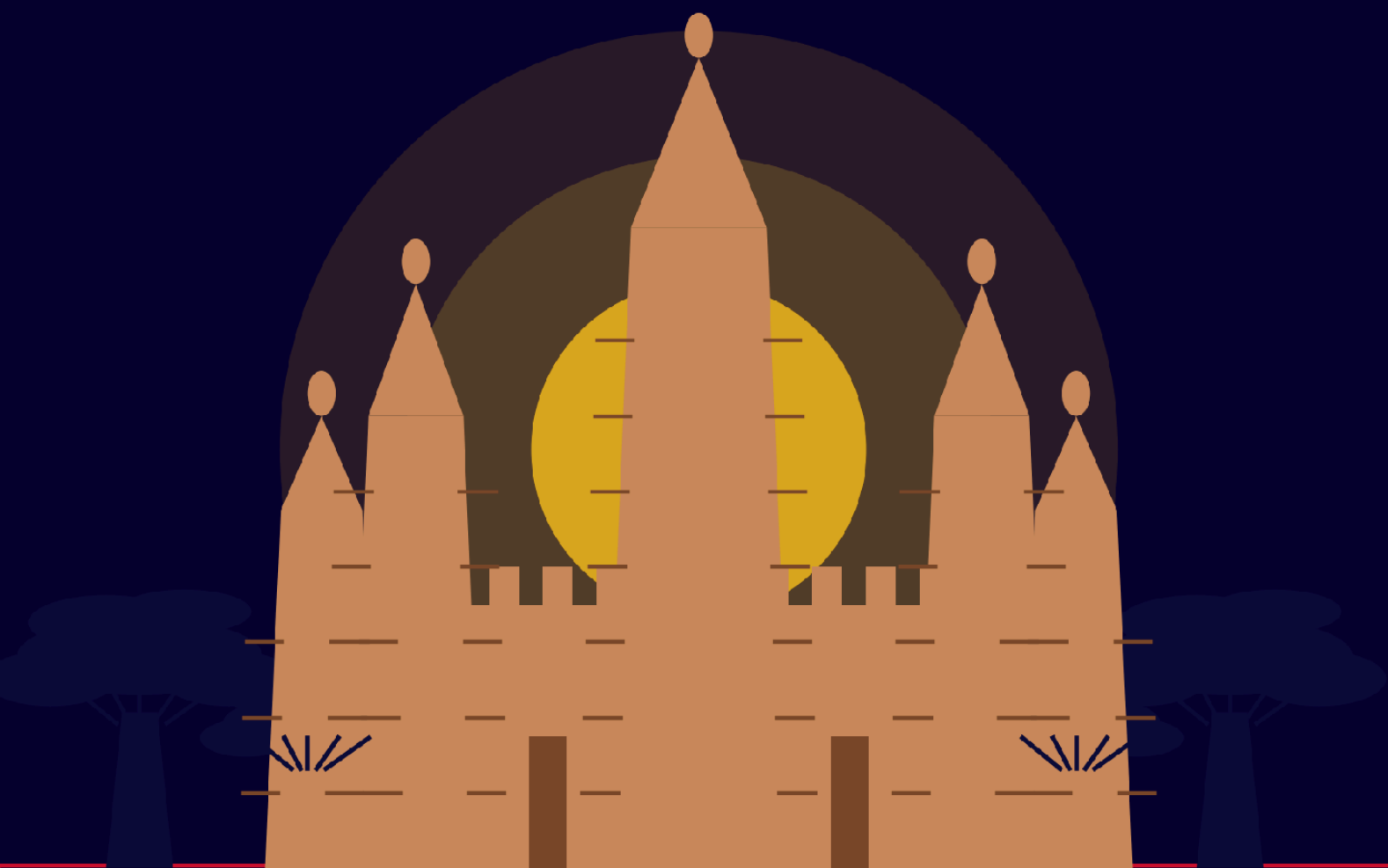


Genie Capital

REPUBLIC OF MALI

Structural Diagnosis and Policy Proposal

The cost of movement, and the way to remove it





Genie Capital

Republic of Mali

Structural Diagnosis and Policy Proposal

PREPARED FOR

Government of the Republic of Mali, Policymakers, the People of Mali, Development Partners

PREPARED BY

Genie Capital Ltd

FRAMEWORK

Nikoka Protocol, Strategic Foresight Protocol

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October 2026



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Preamble

This report is the product of an extended structural analysis of Mali's political economy, history, geography and development constraints. It is not a sectoral review, and it is not a country diagnostic in the conventional sense. It is an attempt to identify the binding constraint on Mali's development, trace its roots, propose a sequenced path forward, and anticipate the scenarios that follow once that constraint is removed.

The analysis proceeds from a simple observation: **Mali's development ceiling is set by the cost of movement.** Everything else — fiscal weakness, the north's disconnection, resource paralysis, Bamako's overconcentration, conflict economics, the fragility of the financial system — is downstream of this constraint. The proposal that follows is organised around removing it.

The report is written for three audiences at once: the Government of Mali, which must authorise and coordinate; the People of Mali, whose emergence is the point; and Development Partners, whose capital and technical capacity are necessary but insufficient without a coherent framework.

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Figure 1. Mali at a glance. Sources: see References [1], [6], [20], [29]; gold share of exports 2024.

The argument in brief

- 1. Where Mali comes from.** The Mali Empire was southern in origin; Timbuktu was a cultural jewel, not a throne. Mali's westward trade orientation is a colonial legacy, not a geographic necessity.
- 2. Where Mali stands.** Gold and lithium are bringing new revenue, but the country moves goods on 6,605 km of paved road, a 641 km rail remnant and a seasonal river, while the north has slipped further from state reach in 2026.
- 3. What binds it.** Transport cost is the master constraint. It explains weak taxation, a stranded north, an overstretched capital, exposure to blockade and the economics of armed groups.
- 4. Why the usual toolkit misses it.** Conventional diagnostics allocate capital within a fixed system. The binding constraint is a corridor problem that spans several countries, sectors and decades.
- 5. The way forward.** Logistics first, industry second, finance last: a portfolio of three corridors, a southern freight arc, a northern passenger line and a river deal built on tolls and committed volumes.



6. What follows. Three scenarios: the corridor state, the stranded state and the fragmented state. Emergence cannot be planned, only enabled — and what is missing is the numbers document.



PART I

Where Mali Comes From

History, geography, people and economy



1. Historical Background

1.1 The Medieval Empires

The territory of the modern Republic of Mali was home to some of the most sophisticated political and commercial formations in pre-colonial Africa. Understanding them is not antiquarian. It is essential to understanding the identity frames that shape Mali's politics today — and to correcting the misconceptions that seed conflict.

The Ghana Empire (roughly 4th–13th century) was centred on the Sahel, controlling trans-Saharan trade routes between the Niger River and the Sahara. Its capital, Kumbi Saleh, was a major commercial hub. Ghana's wealth derived from gold and salt, and its power from its ability to tax the movement of goods across the desert.

The Mali Empire succeeded Ghana. Its birthplace was the Mandé region, a savanna zone in the south-west of modern Mali near the upper Niger River. The empire grew out of the small Malinke kingdom of Kangaba, on the left bank of the Niger upstream of modern Bamako. Sundiata Keita defeated the Susu king Sumanguru at the Battle of Kirina in 1235, an event traditionally considered the founding of the empire. Sundiata then rebuilt Niani as his capital, a city near the Sankarani River in present-day Guinea, close to the Malian border.

This is a crucial point that popular accounts often obscure: **the Mali Empire's political nucleus was in the south and south-west, not the north.** Its founders were Mandinka, their language was Mandé, and their seat of power was in the savanna.

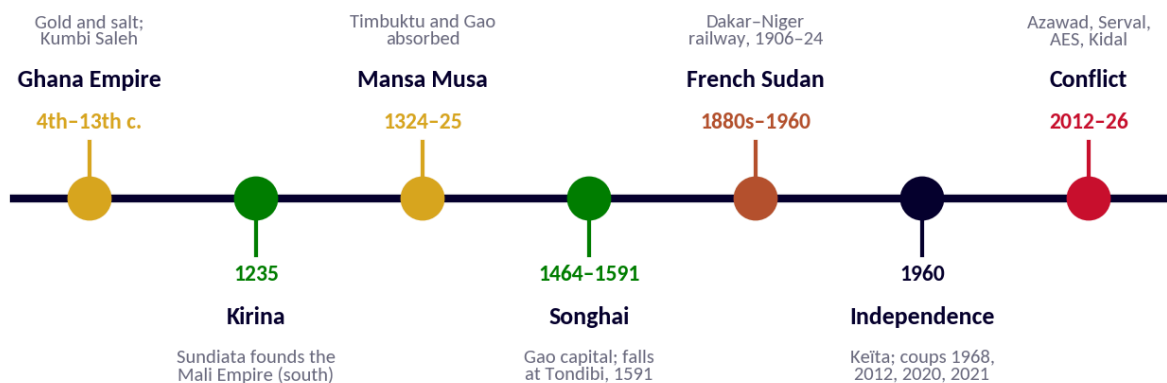


Figure 2. Seven centuries in one line: from the Ghana Empire to the conflicts of 2012–2026.

The empire's apogee came under Mansa Musa (r. 1307–1332), whose pilgrimage to Mecca in 1324–1325 distributed so much gold in Cairo that it depressed the metal's price for a decade. Under Mansa Musa the empire absorbed the northern commercial cities of **Timbuktu** and **Gao**. These were not the empire's birthplace but its most prized conquests — the gateways to the trans-Saharan trade.

Timbuktu became a world-renowned centre of Islamic scholarship. Its Sankore mosque and associated university attracted scholars from across the Islamic world, and its manuscript tradition — tens of thousands of manuscripts on astronomy, medicine, law and theology — is one of Africa's greatest intellectual heritages. But



Timbuktu was never the seat of Mali's political power. It was a commercial and cultural jewel, coveted and controlled by successive empires, but never a capital.

Gao was the seat of the **Songhai Empire**, which rose as Mali declined. Sunni Ali Ber (r. 1464–1492) expanded Songhai into the largest empire in West African history, stretching from the Atlantic to present-day Niger. Gao was its political capital. When Morocco invaded in 1591 and destroyed Songhai at the Battle of Tondibi, the region fragmented into smaller polities.

The key correction. The Mali Empire was southern in origin. Timbuktu was a cultural trophy, not a throne. Gao was Songhai, not Mali. The modern state's name derives from a southern empire, not a northern one. Identity frames that claim the north as Mali's "true" heartland, or that treat the south as an alien imposition, are historically inverted.

1.2 The Colonial Interlude

French colonial conquest of the region began in the 1880s and was consolidated by the early twentieth century. The colony of **French Sudan** (Soudan français) was administered from Bamako. Its borders were drawn to serve French imperial interests, not the economic or cultural geography of the region.

The **Dakar–Niger railway**, built between 1906 and 1924, was the colony's principal infrastructure investment. It connected Bamako to the Senegalese coast at Dakar, orienting the colony's trade westward. This was a deliberate choice: the Niger River, which flows eastward toward Nigeria, was never developed as an international corridor because its outlet lay in **British** territory. The French built the railway to their own port, not their rival's.

The consequence is that Mali's trade orientation — toward Dakar and later Abidjan — is a **colonial legacy**, not a geographic necessity. The river route was always there. It just went through the wrong empire.

Colonial ethnography also left a poisonous legacy. French administrators divided West Africa into racialised categories: "**Berbères blancs**" (white Berbers) in the north and "**Noirs**" (Black Africans) in the south. The Tuareg were classified as "**hommes bleus**" (blue men), romanticised as desert warriors and simultaneously cast as "**feudal lords**" who had enslaved southern populations. The south was cast as the domain of settled, "civilisable" agriculturalists.

These categories were **fiction dressed as science**. They ignored centuries of intermarriage, clientage and cohabitation. But they stuck, and they became the raw material for post-independence identity politics.

1.3 The Post-Colonial State

Mali gained independence in 1960 under **Modibo Keita**, whose socialist experiment was overthrown in 1968 by **Moussa Traoré**. Traoré ruled for 23 years until the 1991 uprising, which ushered in a democratic transition and the **Alpha Oumar Konaré** presidency.

The 1990s saw the **first major Tuareg rebellion**, settled by the **1992 National Pact** and symbolically closed by the 1996 "Flame of Peace" ceremony — a settlement that promised northern development but delivered little. **Amadou Toumani Touré** ruled from 2002 until the **2012 coup**, which was triggered by the collapse of the army in the north and the declaration of **Azawad** by the MNLA.

The north was occupied by jihadist groups until the **2013 French intervention, Operation Serval**. The **2015 Algiers Accord** promised northern autonomy and integration; it was never fully implemented.

Since 2020, Mali has experienced **two further coups (2020 and 2021)** and a turn toward sovereigntist governance, with the withdrawal of French forces and the arrival of Russian military support. Relations with



France and ECOWAS have been strained, and Mali has pivoted toward the **Alliance of Sahel States (AES)** with Burkina Faso and Niger.



2. Foundations of the Modern State

2.1 Geography and Climate

Mali is a **landlocked country** in the Sahel with an area of **1,220,190 km²**. It stretches from the Sahara in the north to wetter savanna in the south.

- **Northern Mali (Sahara).** True desert. Around Timbuktu, Gao and Kidal, rainfall is often under **200 mm a year**, sometimes near zero. Extremely hot, arid and sparsely populated.
- **Central Mali (Sahel proper).** A semi-arid transition belt with rainfall of roughly **200–600 mm a year**, concentrated in a single **June–October rainy season**. This is the classic Sahel: highly variable rainfall, frequent droughts, pastoralism, millet and sorghum.
- **Southern Mali (Sudanian zone).** Wetter savanna with rainfall of roughly **600–1,200 mm a year**. Most of the population, farmland and cash crops — **cotton, maize and rice** — are concentrated here, around Bamako, Sikasso and the Niger River valley.

By land area, roughly the northern two-thirds of the country is desert or semi-desert. By population and economy, most Malians live in the wetter south and along the **Niger River**, which acts as the country's economic and agricultural lifeline. The **Inner Niger Delta** is critical for fishing, livestock and rice.

The Niger River is Mali's most important natural asset. It flows from its source in the Guinea Highlands through Bamako, Ségou, Mopti and the Inner Delta, then north-east toward Timbuktu and Gao before turning south-east toward Niamey and the Gulf of Guinea. In Mali it is navigable for only **4 to 7.5 months a year**, depending on the stretch. The Koulikoro–Gao reach (1,308 km) is the primary artery [5, 7, 8].

2.2 Demography

Population estimates for 2026 place Mali at approximately **25.9 million**, with **45.1% urban** and an annual growth rate of **2.91%**. The median age is **15.9 years**. The total fertility rate is **5.3 children per woman**, far above the 2.1 replacement level. This is a profoundly young population [1].

Population density is **21 people per km²** nationally, but this average is deeply misleading. The regional distribution tells the real story.

Region	Population (2025 est.)	Share of regional total
Bamako (District)	4,227,569	25.7%
Ségou	2,588,721	15.7%
Koulikoro	2,377,718	14.5%
Kayes	1,940,367	11.8%
Sikasso	1,616,475	9.8%
Mopti	1,162,470	7.1%
Tombouctou	1,120,130	6.8%
Gao	884,648	5.4%
Ménaka	336,189	2.0%
Taoudenni	105,804	0.6%



Region	Population (2025 est.)	Share of regional total
Kidal	87,707	0.5%
Sum of regional estimates	16,447,798	100%

Reading the table. The regional estimates sum to about 16.4 million, below the 25.9 million national estimate, because the two series use different baselines. Use them for relative weight, not as a reconciled total. On either basis Bamako holds roughly one Malian in six to one in four.

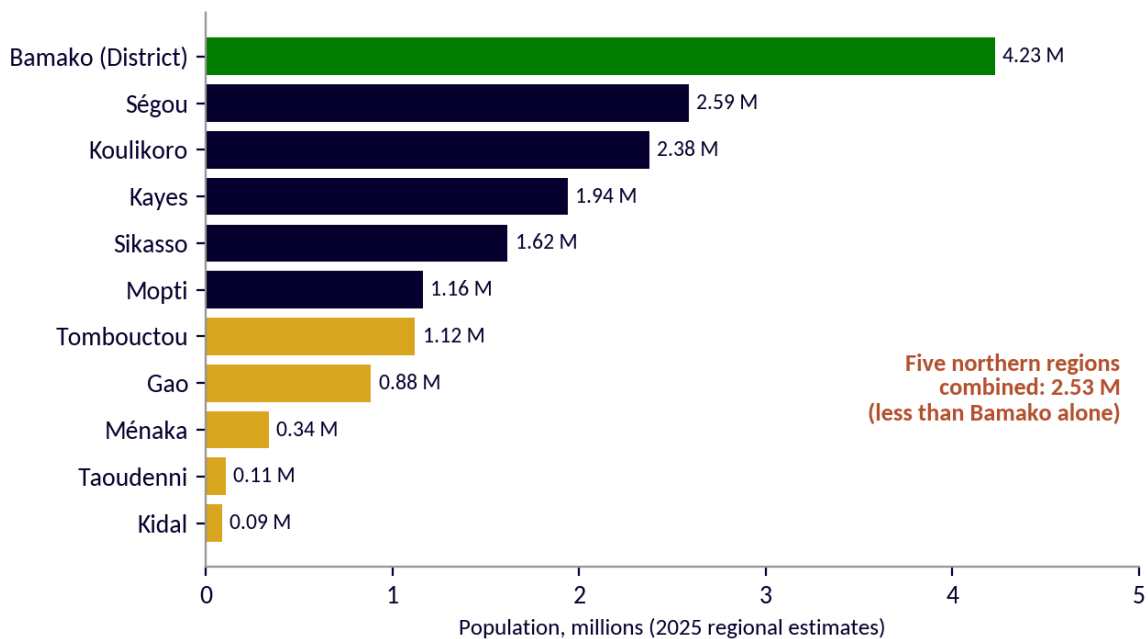


Figure 3. Population by region. The five northern regions (gold) together hold about 2.5 million people — less than Bamako alone.

The three northern regions (Tombouctou, Gao, Kidal) plus Ménaka and Taoudenni together hold roughly **2.5 million people**, about 15% of the regional total and less than the single district of Bamako. This is the demographic reality behind the north–south divide.

Urbanisation. Bamako is growing at **5–6% a year**, fuelled largely by **rural exodus** from Ségou and other regions, driven by insecurity, climate stress and declining rural incomes. Internal migration is reshaping the map. Bamako absorbs the largest share of displaced persons (about 40% of tracked sites), followed by Ségou (about 25%) and Ménaka (about 22%), the latter reflecting displacement from northern conflict.

2.3 Ethnic Composition

Mali has over 20 ethnic groups. The **Bambara** are demographically and linguistically dominant, at approximately **33–36%** of the population. The **Peul (Fulani)** are about 11–13%, **Soninke** 8–10%, **Senufo** 9–11%, **Dogon** 6–9%, **Songhai** about 6%, and **Tuareg and Maure (Berber)** about 2% combined.

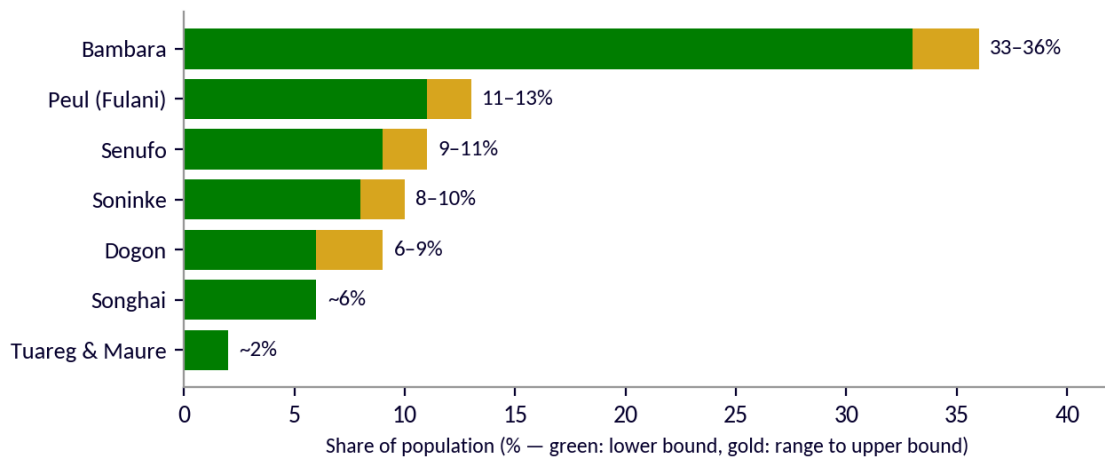


Figure 4. Ethnic composition, approximate shares of the population (ranges).

This distribution reinforces the south's demographic weight: the Bambara heartland is in the south, while the Tuareg and Arab populations of the north are a small fraction of the national total [19].

The Tuareg question. The Tuareg are an indigenous Saharan people who speak **Tamasheq**, a Berber language. The term "Berber" (from the Greek *barbaros*, related to the Arabic *al-Barbar*) is an **exonym**, a name applied from outside. The people themselves use **Amazigh** (plural *Imazighen*), meaning "free people" or "noble people". The Tuareg call themselves **Kel Tamasheq** ("people of the Tamasheq language") or **Imashaghen** [17].

Critically, "Berber" is a **language family**, not a biological race. It refers to a group of closely related languages spoken across North Africa and the Sahara, including Tamasheq, Kabyle and Tashelhit. The Tuareg speak a **Berber language** and are classified as a **Berber ethnic group**.

The Tuareg are **native to the Sahara and Sahel**; they are not migrants from outside Africa. Their ancestors are commonly identified with the **Garamantes** of the Libyan Fezzan, an ancient Saharan people documented by Herodotus and other classical authors. Over millennia they expanded southward across the Sahara, driven by **climate change** (the desiccation of the Sahara beginning around 6,000 years ago) and later by **Arab invasions** of North Africa from the 7th century CE.

Genetic studies describe the Tuareg as a **genetic bridge** between North Africa and sub-Saharan Africa. Their maternal and paternal lineages show:

- A **major West Eurasian/North African component** shared with other Berber groups.
- A **significant sub-Saharan African component**, introduced through long-term interaction with Sahelian populations.

The framing of "native African versus Berber" assumes that "Berber" is something **non-African**. But the Amazigh peoples, including the Tuareg, are **indigenous to North Africa and the Sahara**. They are not Arab, and they are not European. They are **African peoples who speak African languages** belonging to the Afro-Asiatic family. The dichotomy itself is a colonial-era artefact [18].

2.4 Economic Structure

Agriculture contributes approximately **33% of GDP** and employs the vast majority of the working population. **Services** are the largest contributor, at roughly 36–43% of GDP (43% is used in the chart below so that the sectors sum to 100%). **Industry** — mining, manufacturing and construction — contributes roughly **24%**. The

informal sector accounts for approximately **90% of the economy** and employs **91.5% of the workforce**. It generates between **40% and 60% of GDP** and acts as a socio-economic safety net [20–23].

Gold dominates exports, at roughly **72% of export earnings** in 2024. **Cotton** is the second-largest export earner at about **10%**. **Livestock** is the third. The economy remains undiversified and vulnerable to commodity price shocks and climate variability.

GDP was approximately **\$25.6 billion** in 2025, growing at **5.0%**, which puts GDP per capita at roughly **\$1,000** (reported as \$1,014 by the source used). The **poverty rate** was **43.9%** (2023).

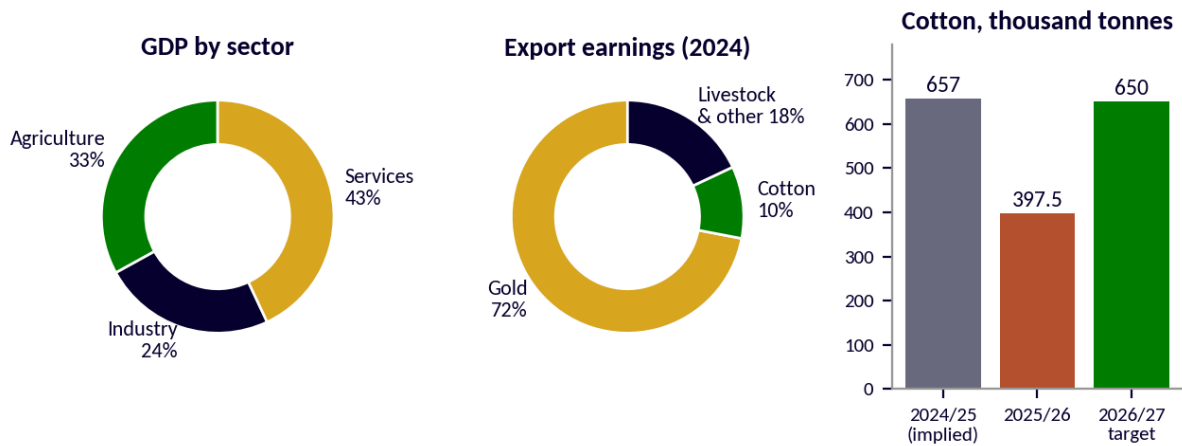


Figure 5. Economic structure. Left: GDP by sector. Centre: export earnings (livestock and other = remainder after gold and cotton). Right: cotton output; the 2024/25 figure is implied by the reported 39.5% fall to 397,540 tonnes.



PART II

Mali in 2026

Gold, lithium, cotton, infrastructure and security



3. Mali in 2026

3.1 The Gold Sector

Mali is **Africa's second-largest gold producer** in this analysis. Industrial production fell to **42.2 tonnes** in 2025, down from a record **66.5 tonnes** in 2023, because of a prolonged dispute with Barrick Gold over the Loulo-Gounkoto complex. The first half of 2026 saw a strong rebound: production reached **23.5 tonnes**, up approximately **30% year on year** and above the government's forecast of 21.2 tonnes. The government targets **43.2 tonnes** for the full year [2–4].

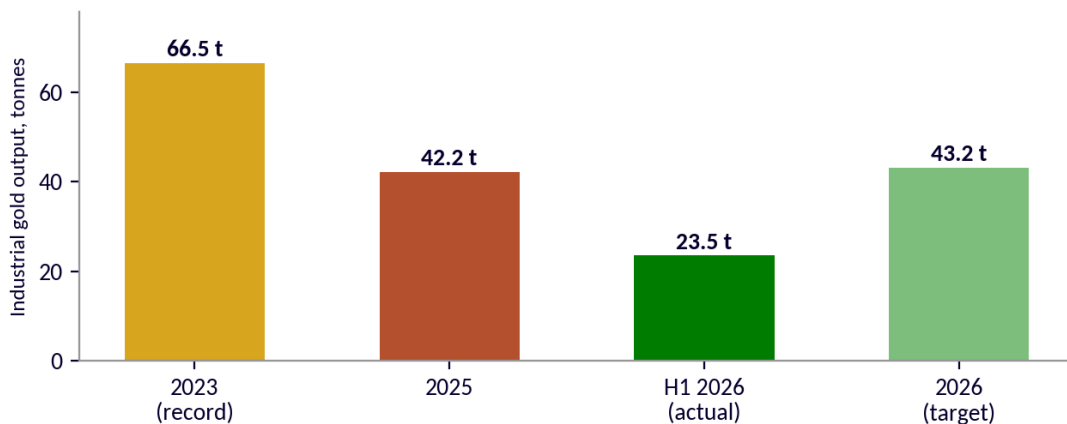


Figure 6. Industrial gold output (tonnes). H1 2026 already equals 54% of the full-year target.

Key producers:

- **Barrick Gold (Loulo-Gounkoto):** Mali's largest producer. The complex resumed operations in late 2025 after a 10-year permit renewal, projecting annual output of about 420,920 oz.
- **B2Gold (Fekola):** Second-largest. The Fekola Complex includes the Medinandi permit and the Fekola Regional (Anaconda) area.
- **Resolute Mining (Syama):** A long-standing industrial mine.
- **Allied Gold:** About 3.5 tonnes in H1 2026.
- **Sadiola and Morila:** Major historical mines.

The government reports that it has recovered **\$1.2 billion in unpaid dues** and expects annual revenues to rise by approximately **586 billion CFA francs** (roughly \$1 billion) [13]. These are government figures and have not been independently audited.

3.2 The 2023 Mining Code

The 2023 Mining Code was a watershed. It raised royalty rates from **6.5% to 10%** and increased the minimum state and local ownership stake from **20% to at least 35%**. It also eliminated the stability clauses that had protected investors from changes in fiscal regimes [14–16].

The code generated conflict with international operators, most notably Barrick, but the government reports that it has recovered significant unpaid dues. **Seven new mining deals** were approved under the revised code in 2025.

3.3 The Mining-Backed Infrastructure Fund

The most concrete financing mechanism to emerge from the mining reforms is a **mining-backed infrastructure fund** designed to raise up to **500 billion CFA francs** (about **\$883 million** at 566 CFA francs per dollar; press reports quote \$800–900 million depending on the exchange rate) for energy, water and transport projects. As of June 2026 the fund had mobilised **109.14 billion CFA francs** (about \$193 million), roughly 22% of target. The transport minister has confirmed that railway projects were presented to the fund [34–36].



Figure 7. Mining-backed infrastructure fund: mobilised versus target, June 2026.

This is significant because it links Mali's extractive revenues directly to infrastructure investment, bypassing traditional donor conditionality and the constraints of the 2023 Mining Code dispute.

3.4 Lithium and the Energy Transition

Mali is on track to become **Africa's leading lithium producer in 2026**, with combined production exceeding **590,000 tonnes of spodumene concentrate** expected from the Goulamina and Bougouni projects. The Goulamina project, operated by Ganfeng Lithium, has a designed annual capacity of **506,000 tonnes of 6% Li₂O concentrate**. All output is pre-sold to Chinese enterprises holding controlling interests [24–26].

Lithium represents a new and potentially transformative export commodity, but it also raises the question of value addition: the concentrate is currently exported raw, with no domestic conversion to carbonate or hydroxide.

3.5 Agriculture and Cotton

Cotton production fell sharply in 2025/2026, down **39.5% to 397,540 tonnes**, largely because of pest attacks and irregular rainfall. Mali lost its position as the CFA zone's largest cotton producer to Benin. The government targets over **650,000 tonnes** for 2026/2027, an increase of more than 60% on the 2025/26 harvest [27, 28].

Cereal production was **11.45 million tonnes** in 2025, with projections of **11.9 million tonnes** for 2026.

Livestock is the second-largest export earner after gold, and Mali has one of the largest herds in Africa. The 2025 campaign produced **157,775 tonnes of controlled meat** and **17,238 tonnes of collected milk**. **Fishing** produced **122,671 tonnes** in 2025.

3.6 Transport Infrastructure

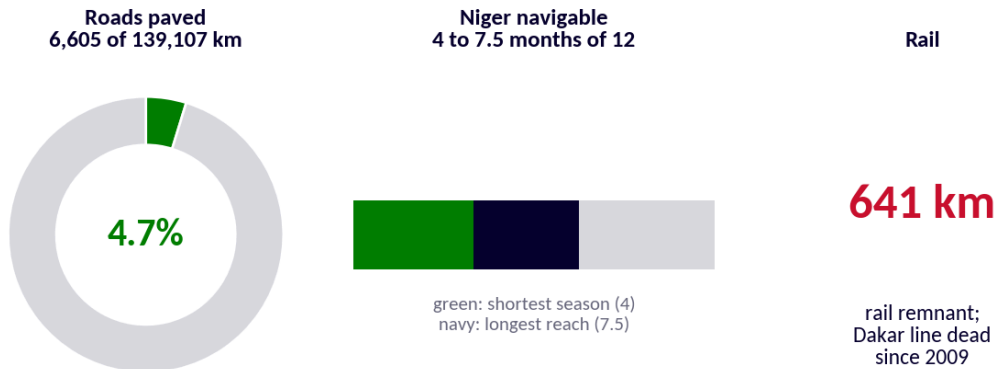


Figure 8. *The cost of movement in three numbers: paved roads, river navigability and rail.*

Roads. Mali has **139,107 km of roads**, of which only **6,605 km (4.7%) are paved** [6]. The network is concentrated in the south and west. The primary north–south artery is **National Route 16 (RN16)**, connecting Mopti to Gao — the only paved road crossing a significant portion of the northern regions. The journey from Gao to Timbuktu requires a massive detour south to Douentza and back north on poor tracks.

Rail. Mali's rail network is a **641 km remnant** of the Dakar–Niger Railway, running from Koulikoro through Bamako to Kayes. The international line to Dakar has been effectively dead since **2009**, with a domestic passenger service between Bamako and Kayes restarted in **June 2023** [9–12].

The **Kassaro bridge**, a critical link on the Bamako–Kayes axis, was damaged and is under a **four-month rehabilitation contract** with China's **COVEC**, valued at **1.6 billion CFA francs** (about **\$2.8 million**). The World Bank has committed **\$238 million** to reconstruct the **Diéma–Sandaré** axis and modernise the Bamako–Dakar corridor, including **644 km of track renewal and 22 station renovations**.

River. The Niger River is navigable for only **4 to 7.5 months a year** in Mali. The river is blocked by sandbars, siltation and rapids, and the **Tillabery rapids** between Gao and Niamey are impassable to commercial traffic. The Niger Basin Authority (ABN) has endorsed an **\$8.6 billion, 20-year rescue plan**, but implementation has been slow [39].

Air. Air travel is the most reliable connection to the north, but it is severely constrained by security. Commercial flights to **Timbuktu, Gao and Kidal** are subject to airspace warnings, and several countries advise avoiding these airports entirely.

3.7 Security and the North

The security situation in northern Mali deteriorated sharply in 2026. In late April, the **Azawad Liberation Front (FLA)**, allied with **JNIM**, seized control of **Kidal**, a city of immense symbolic importance. The Malian army, supported by Russian forces, had recaptured Kidal in 2023; its loss in 2026 was a significant setback. The FLA imposed a blockade on Bamako, and the **Minister of Defence was killed** in the fighting [31–33].

The north remains the epicentre of Mali's long-running separatist and jihadist conflicts. The **2015 Algiers Accord** promised northern autonomy and integration; it was never fully implemented.



3.8 The BRVM and Financial Architecture

Mali is a member of the **BRVM** (Bourse Régionale des Valeurs Mobilières), headquartered in Abidjan, which serves the eight WAEMU countries. The BRVM lists Malian sovereign bonds and a handful of Malian companies, including Bank of Africa Mali. But the exchange is dominated by **banks and telecoms** from across the region. Mining companies list in **Toronto, London and Shanghai**, not Abidjan [37, 38].

The BRVM is a **domestic-equity market for domestic-service companies**; it does not intermediate the extractive economy. It is, in the language of this diagnosis, a **political concoction** that has not been populated by a private trading community.



PART III

The Diagnosis

The binding constraint, the frames that shape action, and why standard tools miss it



4. Diagnosis

4.1 The Binding Constraint

Transport cost is Mali's master constraint. This is not a sectoral observation; it is a structural finding.

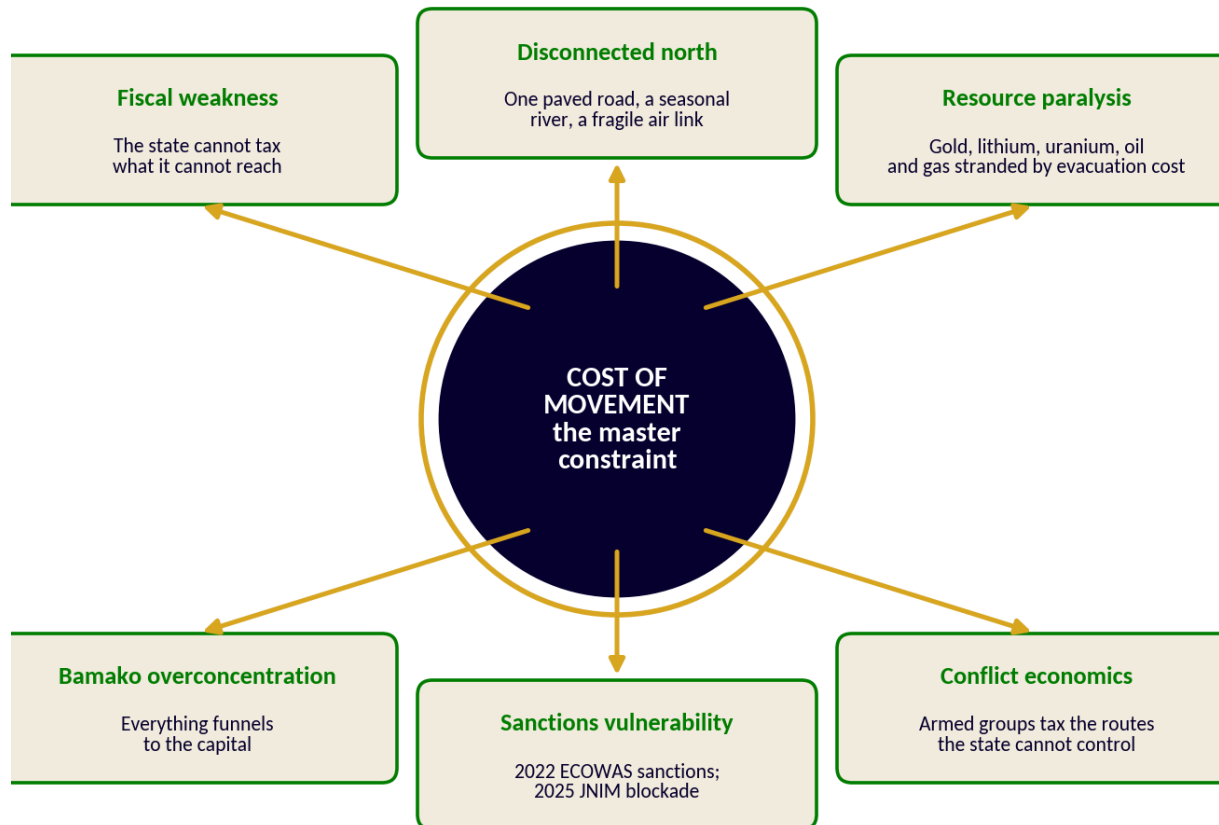


Figure 9. *One constraint, six symptoms.*

- **Fiscal weakness.** The state cannot tax what it cannot reach. Weak transport means thin market integration, a narrow tax base and chronic revenue shortfalls.
- **The north's disconnection.** The north is connected to the south by **one paved road, a seasonal river and a fragile air link**. Bamako cannot project administration or commerce northward because the arteries do not exist.
- **Resource paralysis.** Gold, lithium, uranium, oil and gas are all bottlenecked by evacuation cost. The north's reserves are stranded assets.
- **Bamako's overconcentration.** When internal transport is expensive, everything funnels to the capital. Bamako's 4+ million people are partly a symptom of a broken national grid.
- **Sanctions vulnerability.** The 2022 ECOWAS sanctions and the 2025 JNIM blockade demonstrated that Mali's transit dependence is a chokehold. A second corridor is existential insurance.
- **Conflict economics.** Armed groups tax the routes the state cannot control. The illicit economy thrives precisely because the licit one is broken.

4.2 The Corridor Problem

Mali's transit dependence is not a single problem but a **portfolio problem**.

The Dakar corridor is dominant but vulnerable. The JNIM blockade of the Kayes–Nioro axis in September 2025 showed that a single non-state actor could choke the country's primary supply line. Nearly **30% of Malian imports** transit through Senegalese and Gambian ports combined, per 2025 customs data. Fluidifying these corridors could **reduce logistics costs for Malian businesses by 15–20%**.

The Abidjan corridor is recovering but historically volatile. The Sitarail network connects Abidjan to Ouagadougou and onward to Mali.

The Banjul corridor is emerging. The **Alport Banjul** concession took over port operations on **14 February 2025** and immediately began renovating equipment and accelerating construction. It is pushing the **Badiara–Vélingara–Kalifourou corridor** as the dedicated route linking Banjul to Mali, positioning The Gambia as a regional gateway. It is also planning **dry ports at Basse and Kaur** to attract Malian importers, with a catchment area of **potentially 25 million people**. Ship waiting times have already decreased and operational efficiency has increased significantly since the concession began [41, 42].

The binding constraints on Banjul are **port draught**, which prevents the port from hosting ships larger than **2,000 TEU**, and **informal checkpoint costs**: truckers report up to **4.5 million Guinean francs per round trip** (roughly \$500) in "barrage" fees.

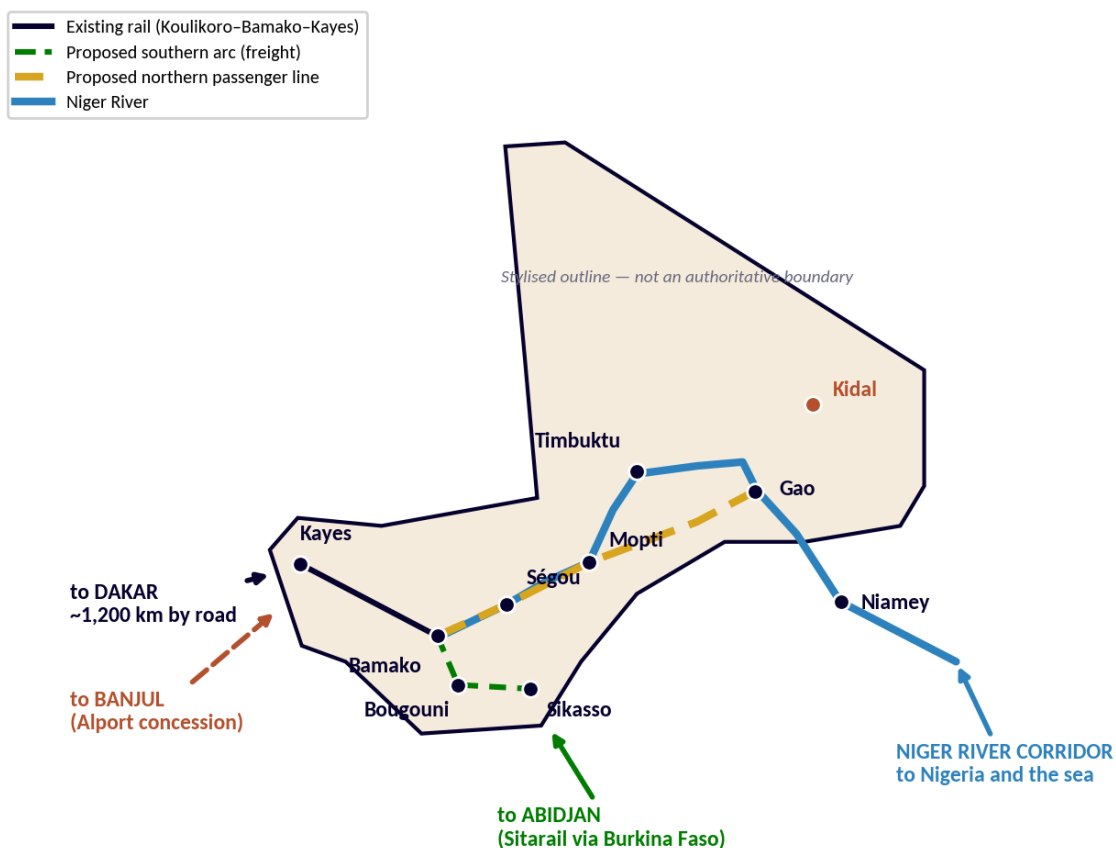


Figure 10. The corridor portfolio: existing rail, proposed rail, the Niger River and the three sea corridors. Schematic only.



The Niger River corridor — Bamako to Gao to Niamey to Nigeria — is the strategic long-term prize. It is blocked by the **Tillabery rapids**, the **Niger–Benue confluence** and the **delta mouth**. Each corridor has different constraints, different partners and different deal structures.

4.3 The Northern Paradox

The north is vast in territory but thin in population. It has real mineral potential — **uranium** in the Kidal and Gao regions, **oil and gas** prospects in the Taoudeni Basin, **artisanal gold and lithium** — but none of it is developed.

The separatist movement draws on genuine grievances: economic marginalisation, state neglect and a history of broken promises. But the demographic weight of the north is small. Any political frame that treats the north as a co-equal demographic bloc is numerically misleading.

The **"Azawad" frame** coordinates fast but caps low; it can mobilise a committed minority but cannot win a demographic contest. The **"composite Mali" frame** — Mali as a layered civilisation with Mandé, Songhai and Saharan heartlands — has a higher ceiling but is institutionally thin.

4.4 The Frame Problem

Frames are not descriptions of reality; they are instructions for action. A frame does three things simultaneously:

1. **It selects facts.** Out of infinite complexity, it decides what matters. "The north is Tuareg land" selects ethnicity and geography. "The north is maldeveloped" selects economics and governance.
2. **It assigns blame.** Every frame has a villain — the colonizer, the Bamako elite, the Tuareg separatist, the jihadist, the foreigner.
3. **It prescribes action.** Once blame is assigned, the solution becomes obvious within that frame. If the problem is ethnic, the solution is separation. If the problem is governance, the solution is reform.

The **"Azawad" frame** is a masterclass in poisoned framing. It selects Tuareg and Arab identity, northern geography and colonial borders. It assigns blame to the "southern state" as an alien, predatory occupier. It prescribes independence or, at minimum, a radically devolved federation.

Notice what this frame **erases**: Songhai farmers in Gao, Peul herders in Mopti, Bambara migrants in Timbuktu, Arab traders who have lived in Bamako for generations. It erases the **class dimension** — poor northerners of all ethnicities share more material interests with poor southerners than with Tuareg elites or Bamako politicians. It erases the **jihadist dimension**, which crosses ethnic lines and is often the actual driver of violence.

The frame does not just **misrepresent** reality. It **reorganises** it so that certain actions — secession, ethnic mobilisation, violence — become **logical**.

Frames as coordination technology. Frames are the **connective tissue** for coordination. Schelling's insight about focal points applies directly: when people need to converge but cannot communicate, they look for the solution that is *obvious* [43]. Frames manufacture obviousness. "The north is a colonised nation" does not need to be argued in every village; once it is circulating, it tells everyone what side they are on, who the enemy is and what tomorrow's action should be.

Frames are also **cheap**. They require no payroll, no enforcement mechanism, no bureaucracy. In a state like Mali, where the government cannot reliably project authority across its own territory, frames do the work that institutions cannot. That is precisely why they are so consequential there — and why the state's weakness in the north is partly a **narrative** weakness, not just a logistical one.

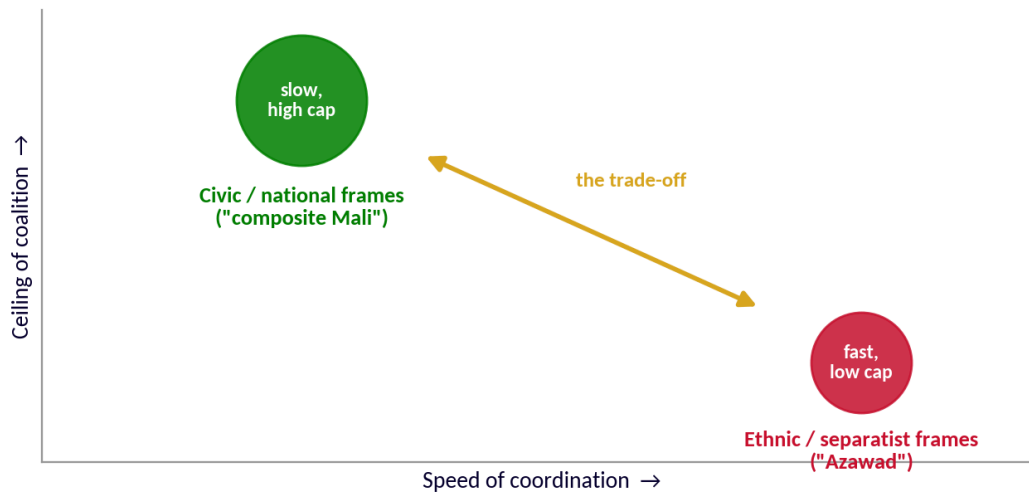


Figure 11. *The trade-off between coordination speed and coalition ceiling.*

The trade-off:

- **Ethnic and separatist frames coordinate fast.** Sharp boundaries, high emotional salience, a clear in-group. But they have a **low ceiling** — they cap at the size of the group, and they automatically generate a counter-coalition.
- **Civic and national frames coordinate slowly.** Vague boundaries, lower immediate salience, harder to mobilise. But they have a **high ceiling** — potentially everyone.

Frames decay without a blood supply. Connective tissue needs circulation. Frames are sustained by:

- **Repetition** — ritual, schooling, media, sermons, songs.
- **Material payoff** — if the frame promises dignity or development and delivers neither, it thins.
- **Institutional carriers** — organisations that embody it and reward adherence.
- **Moments of vindication** — events that can be narrated as proof the frame is true.

Strip those away and even a good frame becomes inert. This is where Mali's counter-frames have historically failed: they have been rhetorically available but institutionally thin.

4.5 The Finance Layer

Mali's financial architecture is thin. The BRVM exists but does not intermediate the extractive economy. Domestic debt markets are shallow. Institutional investors — pension funds, insurance companies, takaful operators — are small. Custody and settlement infrastructure is underdeveloped.

The exchange is a **secondary market**; what Mali lacks is **primary issuance, a treasury curve and a savings base**. Finance follows trade, not the reverse. The sequence is **logistics** → **industry** → **finance**, and Mali is stuck at the first step.

The state's role in finance. The state is an **issuer and an enforcer**, not a founder. It issues credible domestic debt at multiple maturities, which creates the risk-free rate that everything else prices off. It licenses and polices the market once a private trading community forms. But it does not constitute the market. No club, no exchange. The BRVM is the counterexample that proves the rule.



Islamic finance as the likely frame. Mali is about 95% Muslim. The conventional capital-market model — interest-bearing bonds, equity listings, derivatives — may not be the natural fit. **Islamic finance** is the more likely path:

- **Sukuk** (asset-backed bonds) for infrastructure — the rail line, the power plants.
- **Murabaha** and **ijara** for trade and equipment finance.
- **Takaful** (Islamic insurance) as the institutional investor base.
- **Commodity murabaha** for liquidity management.

Malaysia built its capital market this way, and it worked because it was **culturally aligned** with the population rather than imported wholesale from London [49].

5. Why Conventional Tools Miss It

Conventional development toolkits — World Bank country diagnostics, IMF Article IV consultations, USAID sector assessments — are built to **allocate capital within a known system**. They assume the system's parameters are fixed and ask where the next dollar should go. They cannot see structural interventions that change the parameters themselves. The blind spots are structural, not accidental.

- **Methodological nationalism.** The toolkit organises analysis by country. Mali's binding constraint is a **corridor problem** spanning four to nine countries. The river corridor disappears between the Mali desk, the Niger desk and the Nigeria desk, each with its own country director, budget and logframe.
- **Sector silos.** Transport, energy, water, trade and finance are separate departments with separate budgets. The **integration**, which is where the value is, has no institutional owner.
- **The governance-first paradigm.** Every diagnostic concludes that Mali needs better governance. That is true but circular. It also lets the toolkit off the hook, because governance is hard and infrastructure is tractable. The toolkit prefers the hard, vague problem to the concrete, solvable one.
- **The landlocked-as-doom literature.** Sachs and others established landlockedness as a near-deterministic growth penalty [45]. The policy response became vague calls for "trade facilitation" and "regional integration". Nobody models the **specific bilateral deal** with a specific toll and a specific volume commitment.
- **The Sahel-as-security-frame.** In the Sahel, everything is subordinated to counterterrorism. Transport becomes "force projection", the river becomes "border security", and the economic case for the corridor is never made on its own terms.
- **The private-sector-first default.** No private actor will build a 1,100 km passenger rail line. The state must lead on the corridor because the returns are social, not commercial. The toolkit has no category for "state as entrepreneur".
- **The stock exchange fetish.** Development finance institutions push capital markets as a marker of modernity. They build exchanges instead of building the conditions for exchanges. They measure the symptom, not the cause.
- **Identity-blindness.** Conventional economics ignores ethnicity. Conflict studies essentialise it. Neither treats frames as **coordination technology**. They cannot see that a frame is infrastructure, and that a poisoned frame is a broken bridge.
- **The project cycle.** Three-to-five-year horizons. A rail line is ten years. A financial system is twenty. A frame shift is thirty. Nobody gets promoted for a thirty-year plan.
- **The data problem.** Mali's informal economy is about 90% of employment and 40–60% of GDP. Standard national accounts miss most of it, so the analysis is built on a picture of Mali that excludes most Malians.
- **Colonial cartography.** The toolkit treats Mali's borders as given. But the economic geography — the Songhai corridor, the Mandé heartland, the Tuareg trans-Saharan routes — does not match the political map.
- **The emergence problem.** The toolkit cannot plan for emergence because it is built to plan for outcomes. It needs a logframe, indicators and a theory of change. Emergence has no indicators.

The deeper reason. Conventional toolkits allocate capital within a known system. This analysis assumes the parameters themselves can be changed. That is a different kind of analysis — **structural, not allocative**.



The toolkit can tell you how to improve a road. It cannot tell you that the road is the wrong asset. It can tell you how to strengthen a stock exchange. It cannot tell you the exchange should not exist yet. It can tell you how to negotiate with the ABN. It cannot tell you to bypass the ABN with a bilateral deal.

This analysis asks a **structural question** with a **systems lens**. The toolkit is built for allocative questions with a sectoral lens. That is why it misses this.



PART IV

The Blueprint

Sequencing, corridors, industry, finance and the scenarios beyond



6. Blueprint

6.1 The Sequencing Logic

The sequence is **logistics** → **industry** → **finance**. This is not arbitrary; it is strategic.

- **Logistics is the most tractable intervention** — known technology, costable, buildable.
- It generates **immediate visible returns** — a train that runs, a road that does not wash out.
- It creates the **political constituency** for the next step — traders, farmers and miners who now have something to lose.
- It **de-risks private investment** in everything downstream — nobody builds a mill without a way to move inputs and outputs.

Industry follows, anchored on Mali's extractive base. Finance comes last, because capital markets follow trade.

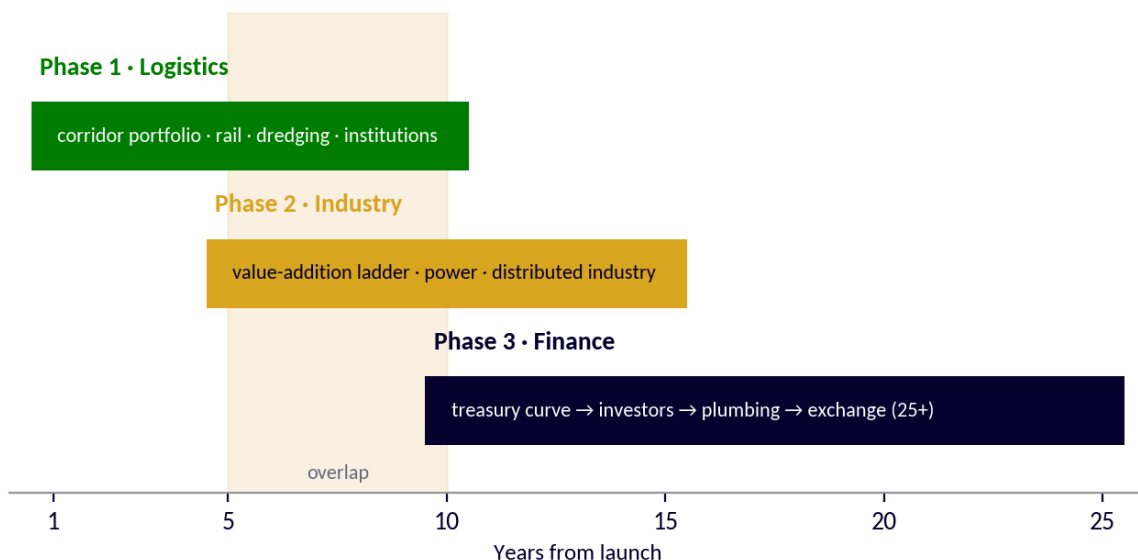


Figure 12. *The three phases overlap: industry begins before logistics is complete; finance begins as industry matures.*

Power is co-equal with logistics for the highest-value chains (lithium conversion, processing). Logistics is the first unlock because it is the most tractable and it de-risks everything downstream. But it is not sufficient alone.

6.2 Phase One: Logistics (Years 1–10)

Corridor portfolio. Mali needs **three corridors, not one**.

The Dakar corridor is the legacy route. Improve road quality, reduce border friction, restore rail. The World Bank's \$238 million commitment to the Diéma–Sandaré axis and the Bamako–Dakar corridor is a start.

The Abidjan corridor is the historical alternative. The Sitarail network connects Abidjan to Ouagadougou and onward to Mali.

The Banjul corridor is the emerging alternative. The Alport concession has already renovated equipment and accelerated construction. The Badiara–Vélingara–Kalifourou corridor is being positioned as the dedicated route, and dry ports at Basse and Kaur would serve Malian importers. A bilateral port concession and customs

agreement would unlock the corridor. The deal structure is simpler than for the river: no locks, no dredging, no nine-country basin authority. Just a port concession, a road upgrade and a customs agreement.

The Niger River corridor is the strategic play. Mali needs an outlet; Nigeria needs cargo for its dormant waterway. The deal is **tolls + committed volumes + phased dredging**. Mali commits minimum annual tonnage; Nigeria commits minimum navigable depth and transit times. A joint corridor authority — Mali and Nigeria as principals, Niger as transit — would oversee operations.

The economics of the river deal

- **Mali pays now.** Road freight from Dakar or Abidjan to Bamako runs roughly **\$120–200 per tonne** for bulk, or \$2,500–4,000 per container.
- **The river's problem.** Bamako to the Atlantic via the Niger is roughly **4,200 km**; Dakar by road is about 1,200 km. Even at half the unit cost per tonne-km, a route more than three times longer is **not automatically cheaper**.
- **The prize is not cost but optionality.** Mali's transit dependence has been **weaponised repeatedly**. A second corridor is **strategic insurance**, and that has value even at cost parity.

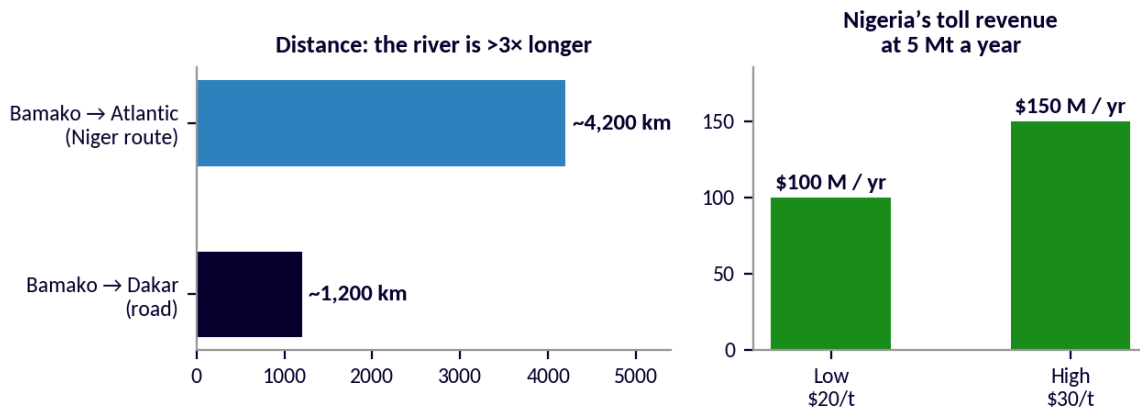


Figure 13. The river route is far longer than the road to Dakar — its case is insurance and volume, not unit cost. Right: toll revenue at 5 million tonnes a year.

Nigeria's side of the ledger:

- **Tolls and transit fees.** On 5 million tonnes a year at \$20–30 per tonne, that is **\$100–150 million a year**.
- **Anchor cargo.** Nigeria has spent decades and billions trying to make its own inland waterway work — the **Baro, Onitsha and Lokoja** ports sit underused. Mali's committed volumes are exactly the **base cargo** that makes those investments pay off.
- **Northern development.** Kebbi, Niger and Kwara states are poor and restive. The corridor runs straight through them.
- **Construction and services.** Dredging contracts, port works, and fuel and cement exports south to north.

The deal structure:

1. **Agree volumes first.** A take-or-pay transit agreement: Mali commits minimum annual tonnage, Nigeria commits minimum navigable depth and transit times. Economics before concrete.
2. **Toll formula.** Fixed fee plus volume tier, reviewed on a set cycle.
3. **Joint corridor authority.** Mali and Nigeria as principals, Niger as transit.

4. **Phase the engineering to the agreed volumes.** Do not build for 10 million tonnes when you have contracted 2.
5. **Sequence the hard parts.** Kandadji locks (already underway), then the Tillabery rapids, then the confluence.

Internal rail — the southern network

- **Bamako–Bougouni (about 180 km)** serves the lithium belt (Goulamina, Bougouni) and the cotton zone. Lithium concentrate is a **new, high-volume, export-oriented bulk** that currently has no rail option. Ganfeng's Goulamina project alone has a designed capacity of **506,000 tonnes of concentrate a year**. A dedicated spur from Bougouni to Bamako, connecting to the existing western line, would give lithium a path to port.
- **Bamako–Ségou (about 240 km)** serves the Office du Niger rice scheme, Mali's most productive agricultural zone. Rice currently moves by truck on a congested road. Rail would move it in bulk at half the cost.
- **Bamako–Sikasso (about 370 km)** serves the cotton belt and connects to Côte d'Ivoire via the Sitarail network.
- **The southern arc** — Kayes–Bamako–Bougouni–Sikasso — creates a **loop**, not a dead-end spur. Trains do not have to backtrack, and maintenance can be sequenced without shutting the whole network.

Internal rail — the northern line

- The **Bamako–Ségou–Mopti–Gao line** (approximately 1,100–1,200 km; alignment to be surveyed) is a **passenger project, not a freight one**.
- **Lighter track, diesel multiple units, stations as nodes of state presence.**
- The justification is **life-cycle cost, social service and the frame made physical**.
- **Road is cheap to build and expensive forever; rail is the inverse.** Passenger axle loads are lower (about 10–12 tonnes versus 17–22 for freight), maintenance is mechanised and concentrated, and the right-of-way is easier to patrol.
- The northern line is **stabilisation infrastructure with a transport dividend**.

Dredging and locks

- **Kandadji locks** (under construction) would extend navigation downstream.
- **Dredging of choke points** — the Koulikoro–Ségou reach and the Macina–Diafarabé section — is costed and technically viable. The cost is approximately **\$3.25 million for seven sandbars**, within a total programme of **about \$27.8 million** [40].
- **Industrial sand and silt extraction at choke points** is technically viable, economically costed and already partially implemented. But it is not a silver bullet. It works best as a **surgical, regulated and monitored intervention** at identified bottlenecks.
- **The environmental caveat.** The same extraction that clears a choke point can create new ones downstream. River damming and sand and gravel mining can **reduce downstream sediment delivery**, causing **erosion of channel beds, banks and beaches**. In the upper Niger above Ségou, a **tendency toward channel incision** has been manifest since the early 1980s, **essentially anthropic in origin and linked to material extraction for Bamako's building industry**.
- **Annual bathymetric surveys and hydraulic modelling** are essential to identify where dredging is needed each year. **Sediment-trapping technology** can reduce downstream siltation. **Enforcement of extraction permits** can prevent the construction-sand industry from cannibalising the navigation channel.

Institutional reform

- A **purpose-built bilateral corridor authority** for the river, not the ABN, which is too broad and too slow. Rhine and Danube commissions show that river governance works when it is specific and treaty-based [47, 48].
- A **domestic rail authority** or a concession to a private operator.
- A **mining-backed infrastructure fund** that actually disburses.
- A **legal framework** — land tenure, customs, contract enforcement — that lets a trader in Gao do business with a buyer in Niamey without a middleman in Bamako taking a cut.

6.3 Phase Two: Industry (Years 5–15)

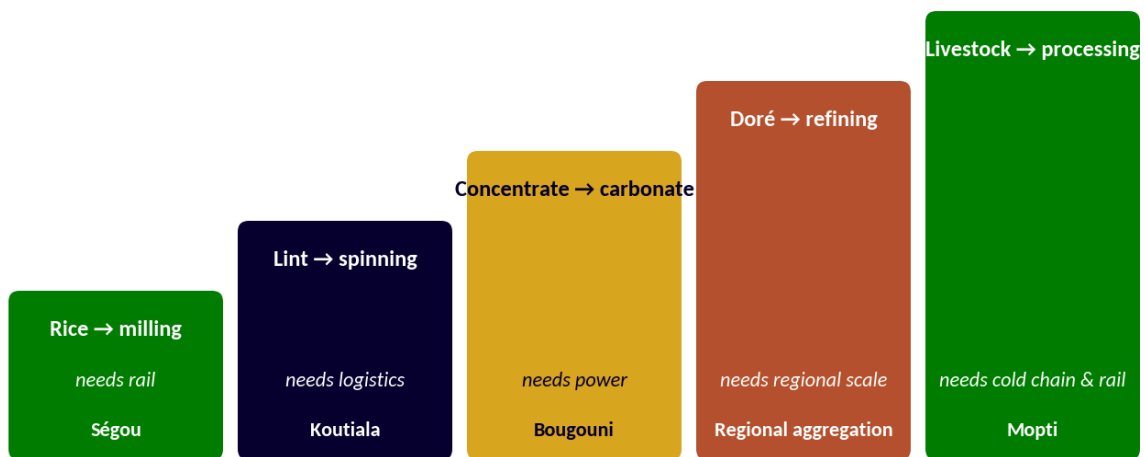


Figure 14. The value-addition ladder: each rung is unlocked by a different constraint.

Value addition ladder.

- **Doré → refining** (needs regional scale). Mali produces roughly 40–60 tonnes a year; a refinery needs about 100+ tonnes a year to be economic. Regional aggregation is the answer.
- **Concentrate → carbonate** (needs power). Lithium conversion is enormously power-hungry.
- **Lint → spinning** (needs logistics). Cotton moves by truck to Abidjan or Dakar. A rail spur changes the economics.
- **Rice → milling** (needs rail). Process near production, not in Bamako.

Power as co-equal constraint. Electricity access reached **58.12% in 2025**, up from 9.2% in 2001 [29, 30]. But industrial processing requires reliable, high-voltage power. The mining-backed fund includes energy projects.

Solar potential in the north is exceptional, and distributed generation and mini-grids can serve processing facilities near production.

Distributed industry. Process near production, not in Bamako:

- **Lithium concentration at Bougouni.**
- **Cotton ginning at Koutiala.**
- **Rice milling at Ségou.**
- **Livestock processing at Mopti.**

The constraint is power, not logistics, for the highest-value chains.

The mining fund as anchor. The fund's **\$883 million** target is enough to finance **one anchor corridor** if fully mobilised; with about \$193 million mobilised by June 2026, sequencing and co-financing matter. One corridor proves the model, and then the fund can be replenished. **Concession financing** — Build-Operate-Transfer — is the alternative.

6.4 Phase Three: Finance (Years 10–25+)



Figure 15. *The order of construction for a capital market: foundations first, the exchange last.*

Treasury curve first. The state issues credible domestic debt at multiple maturities. This creates the **risk-free rate** that everything else prices off. Mali's domestic debt market is thin; building it is the state's job.

Institutional investors. Pension funds, insurance companies and takaful operators. Without a **buy-side**, listings have no demand. Mali's formal pension system is small, and the informal sector does not save in securities.

Islamic finance — sukuk, murabaha, ijara, takaful — is the culturally aligned frame.

Custody and settlement. A central securities depository, a real-time gross settlement system and custodial banks. **Boring plumbing**, but the difference between a market and a rumour.

Intermediaries. Brokers, dealers, underwriters, auditors, actuaries and research analysts. A **generation** to train.

The exchange last. The exchange is **private in origin**. The state licenses and enforces; it does not constitute. **No club, no exchange.** The BRVM is the counterexample that proves the rule. Do not chase it.

6.5 City Specialisation — As Hypothesis, Not Decree

The plan sets the **spine and rules**. Specialisation is **emergent**.

- **Bamako: commercial and financial.** Already true, self-reinforcing and the least contested. The risk is Jacobs's trap: a city that grows as a port of entry without developing its own import-replacement capacity becomes a distribution hub for other people's goods [46]. Bamako needs to **make** things, not just clear them.
- **Niamey: political** (requires an AES/confederal frame; Bamako will resist). Niamey already hosts AES institutional functions, and a corridor polity needs a political centre that is not also the commercial centre,



precisely so the two do not cannibalise each other. The Rhine–Ruhr model is polycentric for this reason. The question is whether Bamako's elite will ever trade political centrality for corridor efficiency. Historically, no.

- **Timbuktu: cultural and academic.** The manuscript heritage, the scholarly tradition, the Sankore legacy. That is real, not invented, and it is a legitimate basis for a specialised institution: a university, a manuscript institute, an archive. But Timbuktu is small, and its administrative function is precisely what the state cannot currently deliver. **Separate the two: cultural and academic at Timbuktu, administrative and military at Gao.**
- **Gao: administrative and military.** The river–rail junction and already the de facto northern capital.
- **Distributed agriculture and industry:** near production, not in Bamako.

The plan is the spine and the rules; the specialisation is emergent. A plan that says "Timbuktu shall be the cultural capital" is a **constraint**. A plan that says "there will be a rail line, a power grid, a reliable court, and free movement of goods and people" is an **enabler**. Timbuktu either becomes what you hoped or becomes something better that you did not foresee.

7. Scenarios Beyond

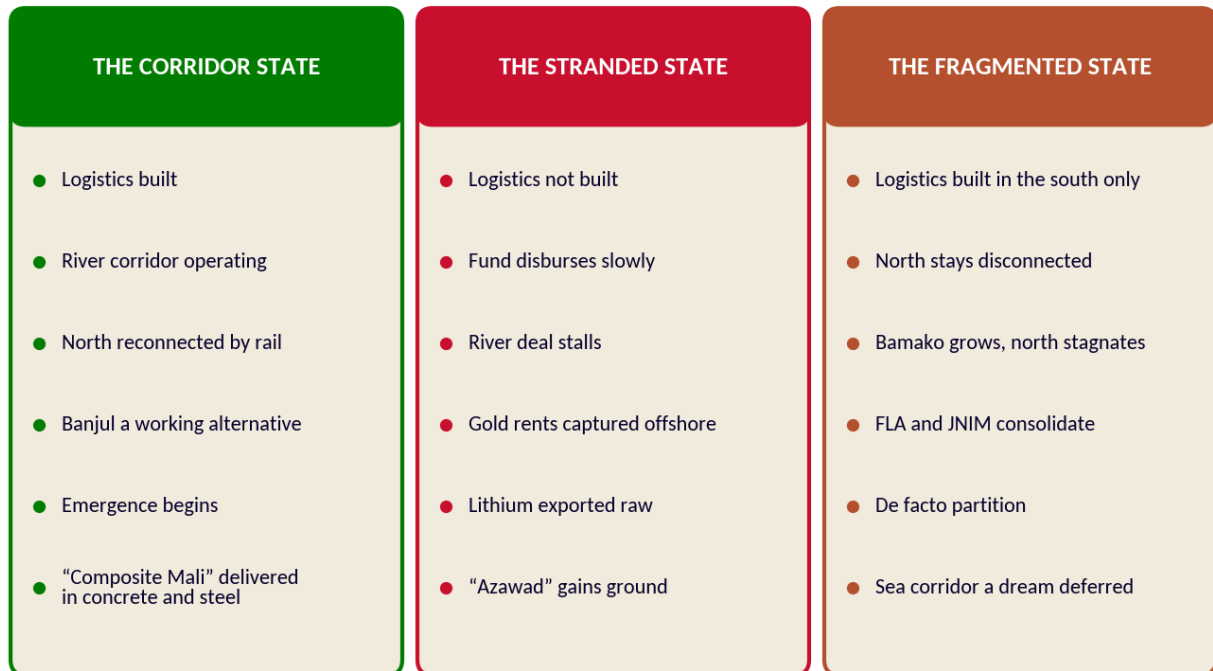


Figure 16. Three possible futures. They are possibilities, not predictions.

7.1 Scenario One: The Corridor State

Logistics is built. The river corridor is operational. The northern rail line connects Bamako to Gao. Banjul is a functioning alternative. **Emergence begins.**

Trade volumes rise. Customs revenues increase. A domestic corporate sector emerges — first in logistics and construction, then in processing and manufacturing. The treasury curve deepens. A private trading community forms. An exchange emerges organically.

Mali becomes a **corridor state**, its economy oriented around movement rather than extraction. The north is reconnected — not just physically, but economically. The frame of **composite Mali** is delivered in concrete and steel.

What this looks like:

- **Bamako** is a commercial and financial hub, but no longer the only one.
- **Ségou** is a processing centre for rice and agro-industry.
- **Bougouni** is a lithium value-addition node.
- **Mopti** is a livestock and fish processing centre.
- **Gao** is an administrative and logistics hub for the north.
- **Timbuktu** is a cultural and academic centre.
- **Niamey** is a political centre for the AES corridor.

The frame of composite Mali is no longer rhetorically available but institutionally thin. It is **materially delivered**: a train that runs, a river that flows, a market that trades, a future that is shared.



7.2 Scenario Two: The Stranded State

Logistics is not built. The mining fund disburses slowly. The river corridor deal stalls. The north remains disconnected.

Security deteriorates. The gold sector continues to dominate, but the revenues are captured offshore. Lithium is exported raw. Cotton declines. The informal economy remains the safety net. The BRVM remains a hollow shell.

The frame of **Azawad** gains ground in the north, not because it is demographically viable, but because the state has failed to deliver an alternative. Mali remains a **rentier state with a broken grid**.

7.3 Scenario Three: The Fragmented State

Logistics is partially built — in the south. The north remains disconnected. The corridor portfolio is uneven.

Bamako grows, the north stagnates. The frame of **composite Mali** is rhetorically available but institutionally thin. The north's grievances deepen. The FLA and JNIM consolidate control. Mali becomes a **de facto partitioned state**, with a functional south and a contested north.

The corridor to the sea remains a dream deferred.

7.4 The Emergence Problem

The scenarios above are not predictions. They are **possibilities**. The point is that **emergence cannot be planned; it can only be enabled**.

Once people and cargo move affordably, there will be emergence we cannot anticipate. The toolkit cannot plan for emergence because it is built to plan for outcomes. The blueprint is the **spine and the rules**. The emergence is what happens next.

The honest caveat. A frame alone does not move anything. It needs:

- **A champion** — someone in Bamako or Abuja who owns it and pushes it.
- **A numbers document** — the tonnage, toll and phasing model that converts insight into negotiation.
- **A political window** — and the current moment, with Mali renegotiating its external alignments, may be the widest window in a generation.



8. Conclusion

Mali's development ceiling is set by the **cost of movement**. This is the diagnosis.

The proposal is **logistics first, industry second, finance last**. The northern corridor — passenger rail and river navigation — is the **central project of state reconnection**. The frame is **composite Mali**: a layered civilisation with multiple heartlands, whose future depends on reconnecting them.

The window for structural transformation is open. The mining code has generated revenues. The lithium sector is emerging. The AES provides a political frame for regional cooperation. The government has demonstrated a willingness to challenge conventional arrangements. But the window will not remain open indefinitely. The security situation in the north is deteriorating, the coup cycle resets planning horizons, and fiscal space is constrained.

The choice is between three scenarios: **the corridor state, the stranded state and the fragmented state**. The blueprint is the path to the first. The diagnosis is the warning against the second and third.

This report is prepared for the Government of Mali, the People of Mali and Development Partners. It is an **invitation to action**.

The frame is set. The sequencing is clear. The engineering is known. The deal structure exists.

What is missing is the numbers document — the tonnage, toll and phasing model that converts insight into negotiation.

That is the next step. This report is the first.



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Bracketed numbers in the text refer to this list. Sources dated 2025–2026 are news, agency and government items cited as compiled in the drafting record; retrieval dates and URLs should be appended before formal citation. Figures not carried by a numbered source are estimates by the author.

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