

# ROC DEVELOPMENT PROGRAMME: "REPUBLIC OF CHAD 2025 - 2050"





#### À l'attention de :

Son Excellence Monsieur Mahamat Idriss Déby Itno
Président de la République du Tchad
Palais Présidentiel
Quartier Goudji
N'Djamena
République du Tchad

To the attention of:
His Excellency Mr. Mahamat Idriss Déby Itno
President of the Republic of Chad
Presidential Palace
Goudji District
N'Djamena
Republic of Chad

**Subject:** Strategic Country Development Programme Submission – *Chad Rising 2050: National Transformation Framework for the Republic of Chad* 

# ROC DEVELOPMENT PROGRAMME CHAD RISING 2050

Transforming the Republic of Chad into a Resilient, Agro-Industrial & Regional Trade Powerhouse.

Project Overview Brief –
Submitted by AXX Investment // AXX



# **Executive Summary**

**Chad Rising 2050** is a phased, investor-led national transformation initiative crafted to reposition the Republic of Chad as a regional hub of agro-industrial development, resilience, and sustainable growth by the year 2050.

The name *Chad Rising* reflects the project's core ambition: to elevate the Chadian economy and society through externally financed infrastructure, modernized agriculture, and integrated regional trade — without placing financial burdens on the Government.

Led by **AXX Investment (AXX)**, a global private investment and development group, the project will mobilize international capital, technology, and execution capacity through strategic global partnerships — requiring only the legal endorsement, sovereign cooperation, and regulatory facilitation of the Government of Chad.

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# **Strategic Vision**

To unlock the Republic of Chad's immense potential through a pragmatic, externally-financed national development framework — starting with foundational infrastructure and agro-industrial corridors, and gradually evolving into a self-reliant, climate-resilient, and trade-driven African economy by 2050.

# Five-Phase National Transformation Roadmap

Phase	Timeline	Strategic Focus
I	2025 - 2030	Foundational Infrastructure & Energy Buildout
11	2030 - 2035	Agro-Industrial Corridors & Urban Services
III	2035 - 2040	Mining, Industrialization & Trade Integration
IV GLOBA	2040 - 2045	Human Capital, Health and Institutional Strengthening
V	2045 - 2050	Green Economy & Governance Modernization



# **National Context & Justification**

The Republic of Chad today stands at a pivotal inflection point. Despite possessing abundant natural resources — including oil, gold, uranium, livestock, and vast arable land — the country faces significant economic, infrastructural, and institutional challenges. Over 40% of the population lives in extreme poverty, and access to basic services such as electricity, clean water, roads, and healthcare remains among the lowest in Africa. Food insecurity is persistent, youth unemployment is widespread, and the country's economy is heavily dependent on oil exports and international aid.

Yet, Chad's geographic position offers unmatched strategic potential: it borders six countries and connects North, West, and Central Africa. With the right infrastructure and investment, Chad could become a regional trade and energy corridor — linking Sahelian markets with continental transport routes.

To realize this potential, a bold and structured transformation programme is needed — one that does not wait for ideal circumstances to begin, but instead **creates the enabling conditions** through private capital, technical expertise, and institutional collaboration.

**Chad Rising 2050** is built as a five-phase programme, each phase addressing the country's most urgent development needs in a technically feasible, investor-attractive, and locally inclusive manner — positioning Chad for long-term prosperity and resilience.



# **Core Development Sectors for the ROC:**

Foundation of CHAD RISING 2050 - ROC Development Programme.

# 1 Transport & Connectivity Infrastructure

#### Why it matters:

Chad is a landlocked country with severely limited paved road networks, no operational railway system, and minimal transport connectivity across its vast territory. Less than **2,000 km** of roads are paved out of over **44,000 km**, and poor interregional access significantly hampers trade, healthcare access, education, and national cohesion. Chad's dependency on long-distance trucking through Cameroon and Sudan raises logistics costs, delays goods movement, and isolates rural areas from economic opportunity.

Strategic infrastructure is essential for regional integration, national unity, and export competitiveness — especially for agriculture and mining sectors. Improved mobility also facilitates humanitarian access, emergency response, and decentralization.

- Reconstruction and paving of N'Djamena-Moundou-Sarh-Doba axis, linking major population and production centers
- Development of interregional highway corridors, including Abeché–Ati–Mongo and Mao–Bol–Lac Chad zone



- Feasibility and implementation of a trans-Chad rail corridor, connected to Cameroon (Kribi port) and Sudan
- Modernization of N'Djamena International Airport and regional upgrades in Sarh, Moundou, and Abeché
- Cross-border logistics zones and dry ports at Ngueli (Cameroon border), Adré (Sudan border), and Moundou

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# 2 Energy & Electrification

#### Why it matters:

Chad has one of the lowest electricity access rates in the world — with only **11%** of the population connected to the grid (World Bank, 2022), and less than **1%** in rural areas. The national grid is fragmented, generation capacity is limited and largely reliant on diesel, and there is no integrated transmission infrastructure connecting major cities.

This chronic energy deficit severely limits industrial growth, job creation, healthcare delivery, education access, and rural development. Expanding access to clean, reliable, and decentralized power is fundamental to Chad's transformation.

- **Deployment of decentralized solar microgrids** and hybrid renewable energy systems in off-grid rural zones
- Expansion of power generation capacity through natural gas, solar farms, and hydro (e.g., on Chari and Logone Rivers)
- National Transmission Backbone Project to connect N'Djamena, Moundou, Abeché, Sarh, and Doba
- Development of regulatory frameworks and incentives for Independent Power Producers (IPPs) and public-private power consortia
- Integration with regional energy pools (e.g., Central African Power Pool CAPP)



# 3 Water, Sanitation & Urban Services

#### Why it matters:

Over 60% of Chad's population lacks access to clean drinking water, and only 10% have access to improved sanitation (UNICEF, 2022). Rapid urbanization—particularly in N'Djamena and southern towns like Moundou and Sarh—has outpaced planning, leading to informal settlements with inadequate water, waste, and storm drainage infrastructure.

Waterborne illnesses such as cholera and diarrhea are major contributors to child mortality. Seasonal floods regularly disrupt urban life and damage fragile infrastructure. Improving water and sanitation access is not only a public health necessity but also critical for urban dignity and resilience.

- National Clean Water Access Programme using solar-powered deep boreholes, water kiosks, and community purification systems
- Construction of wastewater and fecal sludge treatment plants in N'Djamena, Moundou, Sarh, and Abeché
- **Urban drainage and flood management infrastructure** in high-risk cities (especially in the Logone-Chari basin)
- Slum upgrading programmes including piped water, toilets, waste collection, and public lighting
- Creation of municipal water utilities with performance-based partnerships (PPP models)



# 4 Affordable Housing & Urban Development

#### Why it matters:

Chad is urbanizing rapidly, with **N'Djamena's population expected to double by 2040**. However, most of this growth is occurring in **informal settlements**, where residents lack secure land tenure, basic infrastructure, and access to public services. The absence of a coordinated urban planning framework has resulted in haphazard sprawl, social vulnerability, and lost economic productivity.

Without a national strategy for affordable, resilient, and service-integrated housing, the urban poor will remain locked in cycles of marginalization, and cities will struggle to absorb future growth.

- Launch of a National Affordable Housing Programme, deploying industrial-scale modular construction for rapid delivery
- Public-private housing schemes for civil servants, teachers, health workers, and military personnel
- Development of planned residential zones with water, sanitation, electricity, roads, and schools
- Land titling and property registration digitalization, enabling legal tenure and mortgage access
- **Urban planning reforms** to support mixed-income, climate-resilient neighborhoods across key cities



# 5 Agriculture & Food Security

#### Why it matters:

Although agriculture employs over 75% of Chad's workforce, the country imports large volumes of food and faces chronic food insecurity — with over 5 million people affected annually (WFP, 2023). Chad has vast tracts of fertile land and significant water bodies (e.g., Lake Chad, Chari and Logone Rivers), but low productivity, limited inputs, weak value chains, and poor infrastructure constrain its agricultural potential.

With climate variability and demographic growth, transforming Chad's agriculture is essential for **nutrition**, **employment**, **trade**, and **climate resilience**.

- Development of 4 agro-industrial corridors focused on sorghum, millet, gum arabic, sesame, and livestock (beef, goat, dairy)
- Construction of farm-to-market roads and agro-logistics hubs in Sarh, Mongo, Moundou, and Abeché
- National seed banks, mechanization service centers, and inclusive rural finance initiatives
- **Expansion of irrigation systems**, including solar-powered pumps and canal rehabilitation (e.g., Sategui-Deressia plain)
- Food storage silos and cold chain logistics to reduce post-harvest losses and enable market access



# 6 Mining & Industrial Processing

#### Why it matters:

Chad holds significant untapped reserves of gold, limestone, bauxite, uranium, tin, and petroleum, but the mining sector contributes less than 5% to GDP and lacks local value addition. Most extractive activity is artisanal and informal, with poor oversight, limited revenues for the state, and minimal community benefit. Oil is currently the dominant export, but it is heavily dependent on international firms and subject to volatility.

Developing a **responsible**, **industrial-scale mining ecosystem** with strong local beneficiation and regulatory modernization is critical for **diversifying exports**, **attracting FDI**, and **fueling** job creation.

- Creation of Special Economic Zones (SEZs) for processing of gold, limestone, and uranium in areas like Mayo-Kebbi, Biltine, and Ennedi
- Formalization and regulation of artisanal and small-scale mining (ASM) through cooperatives and traceability programs
- Expansion of petroleum refining and value-chain industries, such as petrochemicals and lubricants (N'Djamena–Djermaya zone)
- Mineral logistics infrastructure, including roads, dry ports, and rail corridors connected to Cameroon/Sudan
- Alignment with international ESG standards and local employment mandates in all industrial mining concessions



# 7 Digital Infrastructure & Innovation

#### Why it matters:

Chad remains one of the **least digitally connected countries in the world** — with **less than 10% internet penetration** and extremely limited broadband access outside N'Djamena (ITU, 2022). The absence of digital public services, reliable mobile networks, and e-payment systems isolates millions from economic participation and governance access.

Digital transformation is a **strategic enabler** for education, e-governance, banking, health, logistics, and regional competitiveness. Unlocking Chad's digital potential is key to leapfrogging infrastructure gaps and empowering a youthful population.

- National fiber optic backbone rollout connecting all major regions (N'Djamena, Sarh, Moundou, Abeché, Mongo)
- Creation of national data centers, government cloud infrastructure, and cybersecurity frameworks
- Digital ID and land registry platforms to support inclusive access to services and legal tenure
- Expansion of digital banking, mobile money, and agent networks to support rural financial access (M-PESA-style ecosystem)
- Launch of tech hubs and digital skills accelerators in 3 provinces to support youth entrepreneurship and IT sector growth



# 8 Education, TVET & Human Capital Development

#### Why it matters:

Chad has one of the **lowest literacy and school enrollment rates in Africa** — with **more than 65% of adults unable to read or write** (UNESCO, 2023). Less than 40% of children complete primary school, and access to secondary or technical education is extremely limited, particularly in rural and conflict-affected zones.

Without a national strategy for skills development, Chad's growing youth population will be trapped in cycles of poverty and unemployment, while strategic sectors like agriculture, energy, mining, and IT will face a chronic shortage of trained professionals.

- Rehabilitation of primary and secondary schools with investments in teacher training, textbooks, and solar-powered classrooms
- Establishment of dual-track TVET (Technical and Vocational Education & Training)
   centers in agro-industrial and mining zones
- **Upgrade of higher education institutions**, including the University of N'Djamena and regional colleges, with a **STEM and applied research focus**
- National girls' education initiative to expand enrollment, safety, and retention rates among adolescent girls
- Youth skills-to-employment programs linked to sectors like logistics, ICT, construction, and energy



# 9 Healthcare & Social Resilience

#### Why it matters:

Chad faces one of the world's most fragile health systems, with life expectancy at just 54 years (World Bank, 2023), high maternal and child mortality, and limited access to essential services. Less than 30% of the population lives within 5 km of a health facility. Malnutrition, waterborne diseases, and preventable illnesses like malaria and tuberculosis remain widespread.

Resilient health infrastructure, preventive services, and health financing mechanisms are critical to improving well-being, **boosting productivity**, and ensuring **inclusive human development**.

- Construction and upgrade of regional referral hospitals, and a national network of primary health posts in rural areas
- Launch of a National Health Insurance Scheme (NHIS-Chad) to ensure affordable access to essential services
- Development of a pharmaceutical industrial park to manufacture generic drugs and medical supplies
- Nationwide immunization campaigns, maternal health programs, and community health worker deployment
- Integration of WASH (Water, Sanitation, and Hygiene) into public health delivery across vulnerable zones



# Governance, Legal Systems & Institutional Reform

#### Why it matters:

Chad's governance system remains **highly centralized**, with **limited institutional capacity** at the provincial level, persistent issues of **corruption**, and a justice system that lacks reach and public trust. **Regulatory fragmentation** and weak enforcement deter foreign investors and delay the implementation of reforms.

To ensure sustainable national transformation, Chad must strengthen the **rule of law**, enhance **public service delivery**, and modernize **institutional frameworks** to support accountability, decentralization, and investor confidence.

- Establishment of decentralized regional development authorities, modeled after India's District Magistrate (DM) system
- **Digitalization of the judiciary and administrative systems**, including e-court platforms and case tracking
- Anti-corruption enforcement through independent bodies and fast-track commercial courts
- Investment protection and land tenure laws harmonization aligned with OHADA and AfCFTA standards
- Open data and budget transparency portals to track public spending and development results



# 1. Transport & Connectivity Infrastructure

#### **Current State**

- Only around 2-3% of Chad's road network is paved, out of an estimated 44,000+ km total. Many roads become impassable during the rainy season, severely disrupting logistics and access to services.
- Over 75% of the population lives in rural areas with limited year-round road access, particularly in provinces like Salamat, Borkou, and Ennedi. Rural-urban connectivity remains severely underdeveloped.
- Chad has no functioning railway system. Past proposals for regional rail links (e.g., Chad-Cameroon) have stalled due to lack of financing and geopolitical complexities .
- The main international gateway is N'Djamena International Airport, but regional airports like Moundou, Abéché, and Sarh suffer from outdated infrastructure and limited connectivity.
- Chad is landlocked and depends heavily on Cameroon's Douala Port, more than 1,800 km away, accessed via the deteriorating N'Djamena-Ngaoundéré-Douala corridor.

Impact: High transport costs (among the highest in Africa), seasonal isolation of entire regions, logistical inefficiencies for food, medicine, and trade goods, and dependency on neighboring countries for import/export access.



#### Future Vision (2050)

A nationally integrated, climate-resilient transport network linking Chad's urban centers, rural hubs, borders, and regional corridors. Roads, dry ports, and air routes will support seamless trade, humanitarian logistics, and economic decentralization. By 2050:

- Paved national highways will connect all major provincial capitals
- Feeder and seasonal roads will be passable year-round
- Dry ports and logistics hubs will link Chad to Cameroon, Sudan, Libya,
   Niger, and Nigeria
- A feasible regional rail corridor will facilitate export movement via Cameroon or Sudan
- Air mobility will extend to underserved regions, boosting health, security, and business connectivity

### **Strategic Actions by Phase**

#### Phase I (2025–2030): National Access Foundations

- Reconstruct N'Djamena-Moundou-Koumra-Sarh corridor with all-weather surfacing
- Upgrade the N'Djamena-Ngueli (Cameroon border) road to support trade to Douala Port
- Begin feasibility studies for rail connections to Cameroon and Sudan



- Launch feeder road program in high-agriculture zones: Mayo-Kebbi Est, Logone Oriental, Chari-Baguirmi
- Rehabilitate N'Djamena International Airport and assess modernization of Moundou and Abéché airfields

#### Phase II (2030–2035): Internal Logistics Grid

- Construct dry ports and bonded logistics terminals in N'Djamena, Moundou, Abéché
- Begin **design and early construction** of Chad–Cameroon Railway (PPP-led)
- Upgrade regional airports for dual civil-commercial use
- Pilot customs digitalization and cargo-tracking systems

#### Phase III (2035–2040): Rural Access Acceleration

- Expand rural connectivity program: climate-resilient bridges, drainage, and bush track upgrades
- Integrate smart traffic systems in urban areas (starting with N'Djamena and Moundou)
- Develop road maintenance authority with public-private performance contracts

# Phase IV–V (2040–2050): Regional Integration & Mobility

- Finalize railway to port corridor via Cameroon or Sudan (depending on geopolitical alignment)
- Launch Chad Transport Competitiveness Index Dashboard
- Harmonize road transport policy with **CEMAC and AfCFTA** protocols



# 2. Energy & Electrification

# **Current State**

- Only 11–12% of the population has access to electricity, with rural electrification below 1% among the lowest in the world. Urban areas like N'Djamena have unreliable supply and frequent blackouts.
- Chad's **national grid is fragmented**, covering limited zones without national transmission integration. There is **no unified national power grid**.
- The country relies primarily on **imported diesel and heavy fuel oil**, making electricity generation expensive and unsustainable.
- Despite having vast solar potential (5.8–6.5 kWh/m²/day) and some hydro capacity in the south, renewable energy remains underutilized.
- Institutional capacity for grid management and independent power production is limited, deterring private sector participation.

Impact: The lack of reliable electricity hampers industrialization, education, healthcare delivery, and investment attraction. Energy poverty remains a major constraint to economic growth and human development in Chad.



# **Future Vision (2050)**

A resilient, decentralized, and green energy ecosystem that powers homes, industries, agriculture, and digital services — with at least **75% national access**, including **40% rural coverage**. By 2050:

- A unified transmission framework connects regional generation hubs
- Solar, hydro, and gas-based hybrid power plants serve major demand centers
- Decentralized solar microgrids support remote villages, farms, and health centers
- A mature IPP market supported by clear regulations and bankable PPAs
- Chad becomes a regional power trade participant via the Central African Power Pool (CAPP)

# **Strategic Actions by Phase**

Phase I (2025–2030): Grid Modernization & Solar Surge

- Construct solar hybrid mini-grids in priority rural zones (Batha, Guéra, Logone Oriental)
- Rehabilitate and expand urban diesel and gas plants in N'Djamena and Sarh
- Develop a Chad Energy Master Plan and regulatory framework for IPPs
- Begin interconnection studies with Cameroon (Garoua) and Sudan (Nyala)
- Launch national electrification mapping and data platform



### Phase II (2030–2035): Transmission Backbone & Hydro Initiation

- Build regional transmission backbones (N'Djamena–Moundou–Sarh–Abéché)
- Begin hydropower site development in southern Chad (Mayo-Kebbi and Moyen-Chari rivers)
- Create a National Energy Regulatory Authority (NERA) and tariff reform models
- Expand grid-tied solar plants near industrial zones and mining areas

#### Phase III (2035–2040): Industrial Power Corridors

- Power SEZs and agro-industrial parks with dedicated solar/hybrid supply
- Facilitate power purchase agreements (PPAs) for agribusiness and mining sectors
- Establish renewable energy training and manufacturing cluster in N'Djamena

#### Phase IV-V (2040-2050): National Coverage & Regional Trade

- Reach **75% electrification target** (rural 40%, urban near-universal)
- Integrate with regional power trade (CAPP, AfDB Clean Energy Corridors)
- Deploy energy data systems, metering infrastructure, and maintenance capacity
- Launch Chad Clean Energy Index and energy access digital dashboards



# 3. Water, Sanitation & Urban Services

#### **Current State**

- Only 61% of the population has access to basic drinking water, with significant disparities between urban and rural regions. In rural areas, access can fall below 50%.
- Sanitation is critically underdeveloped, with only 10–15% of the population having access to basic sanitation. Open defecation is still widely practiced, particularly in rural areas.
- Cholera and other waterborne diseases are endemic, with outbreaks regularly affecting thousands due to unsafe water sources and poor hygiene.
- Urban areas such as N'Djamena and Moundou are experiencing rapid population growth without adequate waste management, drainage systems, or planning enforcement.
- Informal settlements lack piped water, waste collection, and flood protection. Slum growth is accelerating without structured urban expansion strategies.

Impact: Poor water and sanitation infrastructure leads to high disease burden, reduced educational and economic productivity, urban sprawl, and climate vulnerability in flood-prone areas.



# **Future Vision (2050)**

Universal access to **safe water, sanitation, and resilient urban services**, with a focus on **equity, public health, and smart urban planning**. By 2050:

- All major urban areas have modernized drainage, wastewater treatment, and flood resilience
- Rural areas are covered by **community water points**, **solar pumps**, **and boreholes**
- Urban growth is guided by serviced land allocation and integrated urban planning
- Public health indicators improve significantly through WASH (Water, Sanitation & Hygiene) coverage

# Strategic Actions by Phase

Phase I (2025–2030): Emergency Access & Mapping

- Nationwide borehole and solar water pump program (prioritize rural zones: Hadjer-Lamis, Batha, Ouaddaï)
- WASH mapping platform to identify service gaps and high-risk areas
- Construct initial wastewater treatment plants in N'Djamena and Sarh
- Pilot **community-led sanitation campaigns** and latrine construction incentives



### Phase II (2030–2035): Urban Upgrades & Sanitation Scale-Up

- Expand wastewater and drainage networks in urban growth zones
- Create **urban sanitation utility companies** (PPP model) for 6 major cities
- Begin slum upgrading and land regularization program with basic services
- Establish solid waste collection hubs and waste-to-energy pilots

#### Phase III (2035–2040): Water Security & Decentralized Services

- Scale climate-resilient water storage and treatment infrastructure
- Introduce municipal flood management and resilience plans
- Expand water quality monitoring systems and maintenance capacity
- Promote public-private investment in peri-urban WASH systems

# Phase IV-V (2040-2050): Full National Coverage & Smart Urban Growth

- Reach universal access to safe drinking water and sanitation
- Fully integrated urban service delivery platform with GIS planning
- Modernize and connect urban transport, water, and housing master plans
- Deploy real-time urban health and water quality dashboards for government



# 🔽 4. Affordable Housing & Urban Development

# **Current State**

- Chad is experiencing accelerated urbanization, with N'Djamena's population doubling every 15–20 years. However, the urban housing stock is inadequate to meet demand.
- Over 70% of urban residents live in informal settlements, especially in areas surrounding N'Djamena, Moundou, and Sarh. These communities often lack access to water, sanitation, electricity, and legal land titles.
- Affordable housing programs are limited, mostly reliant on donor-led pilots or underfunded national initiatives. The formal real estate market remains extremely small, with low mortgage availability.
- Land tenure is poorly documented, and traditional land allocation systems often conflict with modern land laws. This weakens housing investment confidence and limits expansion of planned urban infrastructure.
- Local authorities lack urban planning capacity, and enforcement is often nonexistent due to overlapping mandates and resource gaps.

Impact: Housing deficits and unregulated urban growth worsen poverty, limit economic mobility, expose millions to environmental risks (floods, droughts), and constrain long-term city development.



# Future Vision (2050)

A structured urban ecosystem across Chad with **affordable**, **climate-resilient housing**, **digitized land ownership**, **serviced neighborhoods**, and functional real estate ecosystems — fostering inclusive, productive urban growth.

- Informal settlements are replaced or upgraded with access to utilities and social services.
- Every region has access to standardized affordable housing models.
- Digital property titling and housing finance systems support middle- and low-income homeownership.
- Urban development is guided by integrated plans aligned with national infrastructure and social policy.

# **Strategic Actions by Phase**

Phase I (2025–2030): Slum Mapping & Affordable Housing Kickstart

- National slum mapping and land audit in major cities (N'Djamena, Moundou, Abéché)
- Launch of Chad Affordable Housing Program with modular pilot units and donor financing
- Establish Land Titling and Digital Cadastre Unit under Ministry of Urban Development
- Legal reform for urban land governance and tenure regularization



### Phase II (2030–2035): Expansion & Public-Private Partnerships (PPPs)

- Scale modular housing factories using **lightweight**, **climate-resilient materials**
- PPP-based worker housing projects in SEZs, logistics, and mining zones
- Allocate serviced plots with infrastructure for middle-class housing cooperatives
- Launch of Chad Urban Planning Academy for capacity building of city planners

#### Phase III (2035–2040): Integrated Smart Growth & Urban Utilities

- Implement Smart Urban Expansion Zones (SUEZs) in 6 regional capitals
- Integrated urban transport, sanitation, energy and housing investment clusters
- Develop local cement and prefab industries for housing affordability
- Financial tools (e.g., housing microfinance, land bonds) to deepen private participation

#### Phase IV-V (2040–2050): Universal Access & Urban Equity

- National digitized land registry and e-property platforms fully deployed
- Slum-free cities initiative completed, integrating all urban communities into formal systems
- Affordable Housing Index launched to track progress and investor benchmarks
- Full alignment with green construction standards and urban climate resilience goals



# 5. Agriculture & Food Security

# **Current State**

- Over 80% of Chadians rely on agriculture and pastoralism for their livelihoods, but most practice subsistence farming with minimal yields and poor access to inputs, credit, or markets.
- Chad possesses more than 39 million hectares of arable land, yet only a small fraction is cultivated. Irrigation covers less than 2% of this potential.
- Climate variability and frequent droughts lead to unpredictable harvests. Desertification and land degradation threaten long-term agricultural stability.
- Post-harvest losses, poor storage, and limited value addition infrastructure further reduce income potential for farmers.
- According to WFP and FAO, around 1 in 3 Chadians are food insecure, especially in the Sahelian belt and Lake Chad Basin.

Impact: Underutilized land, fragile ecosystems, and insufficient infrastructure leave rural families vulnerable to hunger and poverty — undermining national resilience and regional food trade potential.



# **Future Vision (2050)**

A food-secure, export-oriented Chad where agriculture is **mechanized**, **climate-adaptive**, and integrated into national value chains — providing jobs, economic resilience, and affordable nutrition for all.

- Chad becomes a regional agro-export hub, supplying cereals, oilseeds, livestock, and niche crops to CEMAC and Sahel markets.
- Every major agricultural zone features **agro-logistics centers and irrigation** infrastructure.
- Pastoral systems are formalized and drought-resilient.
- Youth-led agri-enterprises drive technology adoption and rural transformation.

# Strategic Actions by Phase

Phase I (2025–2030): Foundations of Modern Agriculture

- Launch Agro-Zones of Excellence in key provinces (Mayo-Kebbi Est, Moyen-Chari, Logone Occidental)
- Farm input subsidy and mechanization program for 50,000+ smallholders
- Establish dryland irrigation pilots and sustainable soil regeneration units
- Rural roads and storage hubs under "Farm-to-Market" Corridor Scheme



# Phase II (2030–2035): Value Chain Development

- Build 5 agro-industrial corridors focused on sorghum, millet, cotton, sesame, and gum arabic
- Set up agro-processing SEZs near southern croplands
- Organize cooperatives and pastoralist unions with digital market access
- Introduce weather-indexed crop insurance and digital finance tools for farmers

#### Phase III (2035–2040): Export Orientation & Resilience

- Scale up commercial agriculture and export compliance facilities
- Expand irrigation from Lake Chad, Chari River, and underground aquifers
- Drought-tolerant seed R&D center and agro-climate analytics lab established
- Align Chad with ECOWAS & AfCFTA agricultural trade frameworks

#### Phase IV–V (2040–2050): Climate Smart Food Systems

- Universal access to food storage, preservation, and cold-chain logistics
- 100% land registered and digitized for agricultural investments
- Promote **carbon-neutral farming** and nature-based solutions
- Launch of Chad Food Sovereignty Index to track national security metrics



# 6. Mining & Industrial Processing

# **Current State**

- Chad is rich in untapped mineral resources, including gold, uranium, limestone, natron, and bauxite. However, much of this potential remains underexplored and underutilized.
- The country has historically prioritized oil production, with gold mining only recently receiving attention from both artisanal miners and foreign interests.
- Lack of geological data, limited transport infrastructure, and weak regulatory frameworks constrain the development of large-scale mining ventures.
- Most extraction is informal and unregulated, with minimal environmental oversight or revenue tracking.
- Chad currently exports unprocessed raw materials, with no domestic beneficiation or mineral processing capacity.

*Impact:* The lack of value addition and formal industry development means Chad forfeits massive opportunities for **job creation**, **export revenue**, and strategic trade leverage.



# Future Vision (2050)

A diversified, industrialized mining sector where Chad becomes a **value-added exporter** of gold, uranium, and niche minerals — compliant with ESG standards and embedded in global supply chains.

- Chad is recognized as a **gold refining and uranium value-addition center** for Central Africa.
- Artisanal mining is formalized, regulated, and monitored for environmental and labor safety.
- Industrial mining zones (IMZs) are established with full logistics, energy, and worker infrastructure.
- Mining contributes over 25% of national GDP, with profits reinvested into community development and diversification.

# Strategic Actions by Phase

# Phase I (2025–2030): Mining Foundations

- National mineral audit and digital geological survey (GeoChad 2030)
- Formalize artisanal gold mining cooperatives with traceability tech
- Enact revised mining code aligned with EITI and ESG benchmarks
- Designate 3 pilot industrial mining zones with tax incentives



# Phase II (2030–2035): Processing Infrastructure

- Construct Chad Gold Refinery and pilot uranium value-add plant
- Develop mineral logistics corridor from mining zones to N'Djamena and Douala Port (via Cameroon)
- Introduce mining revenue transparency portal and royalty stabilization fund
- Align artisanal mining with regional trade certifications (e.g. ICGLR, OECD)

### Phase III (2035–2040): Industry-Linked Expansion

- Build mining-linked SEZs to attract processing and fabrication (e.g. cement, metalworks)
- Launch vocational mining academies and environmental compliance units
- Establish strategic partnerships with France, China, UAE for uranium and rare earth development
- Enable Chad Mining Exchange platform for contracts, auctions, and licensing

# Phase IV-V (2040–2050): Global Positioning

- Fully digitalized licensing, tracking, and taxation across all minerals
- 100% of extracted gold and uranium processed locally
- Compliance with global green mining standards and carbon-neutral mining parks
- Launch Chad Mineral Competitiveness Index to benchmark annual progress



# 7. Digital Infrastructure & Innovation

# **Current State**

- Internet penetration in Chad is among the lowest globally, with less than 10% of the population having access to broadband services as of 2022.
- Mobile network coverage remains limited outside major urban areas, and the cost of data is among the highest in Africa, making digital access unaffordable for most citizens.
- The ICT sector is underdeveloped, with limited digital service infrastructure, few local tech startups, and minimal government-backed innovation support.
- Government services are mostly offline, with manual registry and record-keeping still common in health, education, and judiciary systems.
- E-commerce, e-banking, and digital identity systems are virtually non-existent, except in pilot stages by international NGOs and telecoms.

Impact: Chad's digital exclusion deepens rural poverty, limits governance reform, and excludes millions from modern education, banking, and entrepreneurial ecosystems.



# **Future Vision (2050)**

A connected and competitive digital Chad where digital platforms drive innovation, governance, finance, and entrepreneurship across every province.

- Every citizen has a digital ID, access to mobile money, and internet-based services.
- Fiber optic infrastructure and cloud data centers support e-governance and education.
- Tech parks and innovation hubs thrive in N'Djamena, Moundou, and Abéché, catalyzing youth-led startups.
- Chad becomes a regional ICT outsourcing and data processing hub, leveraging its strategic location and multilingual workforce.

# Strategic Actions by Phase

# Phase I (2025-2030): Digital Foundations

- Launch National Digital Access Program to expand fiber optic networks and mobile towers
- Develop Chad Data Center in N'Djamena with cloud services for government and private sector
- Pilot digital ID and land registry systems (linked to telecom authentication)
- Expand rural broadband via satellite and PPPs (modeled on Kenya's Mawingu initiative)



#### Phase II (2030-2035): Inclusion & Services

- Full rollout of e-government portals for health, education, taxation, and licensing
- Support establishment of Chad Fintech Sandbox and Mobile Money Regulation Framework
- Create Digital Literacy Corps and community tech centers in rural districts
- Incentivize telcos for low-cost internet plans in low-income communities

#### Phase III (2035–2040): Innovation Clusters

- Launch Tech Parks in N'Djamena, Moundou, and Abéché, with tax incentives for ICT firms
- Support creation of coding bootcamps and Al/data science institutes
- Align ICT curriculum with local job market and regional outsourcing needs
- Implement open data governance system for public accountability

# Phase IV–V (2040–2050): Regional Integration

- Chad becomes a Sahelian Data & Al Hub, processing regional agricultural, logistics, and health data
- Digital service exports (e.g. coding, call centers, back-office operations) reach global clients
- Full government digitalization with blockchain-based registries and smart procurement
- Launch Chad Digital Economy Index, tracking growth and integration



# 8. Education, TVET & Human Capital Development

#### **Current State**

- Chad has one of the lowest literacy rates in the world only 22.3% of women and 40.8% of men are literate (UNESCO, 2022).
- Primary school enrollment is low, and dropout rates are high, especially among girls in rural areas. Less than 15% of secondary school-aged youth are enrolled.
- Technical and vocational education and training (TVET) is scarce, with very few institutions aligned to industry needs or modern technology.
- Higher education remains underfunded, poorly equipped, and geographically concentrated in N'Djamena.
- Teachers are often untrained or underpaid, and many schools operate without proper infrastructure, materials, or electricity.

*Impact:* A poorly educated population limits economic diversification, stifles innovation, and reinforces the cycle of poverty. Skill shortages in agriculture, construction, energy, and ICT hinder national development across sectors.



# **Future Vision (2050)**

A skilled, competitive, and empowered Chadian workforce driving innovation, industrialization, and inclusive growth across all sectors.

- Every child completes primary and secondary school with foundational literacy and digital skills
- A network of TVET centers and dual-track training hubs produces job-ready youth across all regions
- Higher education institutions foster STEM innovation and entrepreneurship
- Girls and marginalized communities are actively integrated into the education system through policy and social innovation

# **Strategic Actions by Phase**

# Phase I (2025–2030): Foundational Reform

- Rehabilitate primary and secondary schools with electricity, water, and internet connectivity
- Launch National Teacher Training & Incentive Program
- Introduce free school meals in food-insecure provinces (linked to agriculture programs)
- Develop pilot TVET centers focused on agriculture, energy, and construction trades



#### Phase II (2030–2035): Skills for Growth

- Expand TVET colleges in partnership with industry in mining, logistics, and manufacturing zones
- Create **TVET-enterprise dual-track system** (learning + paid apprenticeships)
- Update national curriculum to include STEM, soft skills, and digital literacy
- Integrate non-formal and adult education into rural community centers

#### Phase III (2035–2040): University & Innovation Uplift

- Modernize Chad's public universities with upgraded labs, dormitories, and e-learning infrastructure
- Launch National Research & Innovation Fund to link academia and enterprise
- Establish university-based incubators for tech, agri-processing, and clean energy startups
- Encourage diaspora scholar return programs through partnerships with OECD universities



# Phase IV-V (2040-2050): Human Capital Revolution

- Reach full national literacy and universal secondary education
- Position Chad as a Sahelian center of education excellence, attracting regional students
- Export trained workforce through bilateral labor mobility partnerships (e.g. with Gulf, EU)
- Develop national Education & Labor Data Platform to align supply and demand for skills

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# 9. Healthcare & Social Resilience

#### **Current State**

- Chad's healthcare system is underdeveloped and heavily reliant on donor funding, with only about 4% of the national budget allocated to health (WHO, 2022).
- Access to health services is limited, especially in rural and conflict-affected areas with less than 1 physician per 10,000 people.
- Infant and maternal mortality rates remain among the highest in the world: maternal mortality is estimated at 1,140 deaths per 100,000 live births, and under-5 mortality is 110 per 1,000 births (UNICEF, 2023).
- Only 26% of births are attended by skilled personnel, and immunization coverage remains low in rural areas.
- The country is prone to epidemics like cholera and measles, worsened by low sanitation and weak surveillance systems.

Impact: High disease burden, poor maternal outcomes, and low life expectancy (at 54.8 years) constrain labor productivity, burden families with healthcare costs, and limit long-term economic growth and resilience.



# Future Vision (2050)

A healthy and resilient Chadian population supported by accessible, affordable, and quality healthcare services nationwide — with health as a pillar of inclusive development.

- Universal access to primary healthcare and essential medicines
- Drastic reductions in maternal, child, and communicable disease mortality
- A national healthcare system with decentralized hospitals, digitized records, and skilled health workers
- A robust National Health Insurance System enabling equitable health coverage

# Strategic Actions by Phase

# Phase I (2025–2030): Essential Health Coverage

- Establish regional referral hospitals and 500+ rural health posts
- Train and deploy Community Health Workers (CHWs) across remote areas
- National immunization campaign against measles, polio, and cholera
- Upgrade emergency response systems and mobile health units for crisis regions



#### Phase II (2030–2035): Health Access for All

- Launch National Health Insurance Scheme Chad (NHIS-C) with tiered contributions
- Establish pharmaceutical production zones for essential drugs (generics, vaccines)
- Roll out maternal health incentive programs: prenatal checkups, safe deliveries
- Build telemedicine hubs to connect rural clinics with urban specialists

#### Phase III (2035–2040): Systems Modernization

- Digitize patient records and roll out National Health Data Platform
- Scale e-health and m-health platforms for remote consultations and alerts
- Foster public-private health partnerships (PPPs) for specialized care centers
- Launch Medical School Modernization Initiative with diaspora and UN partners

## Phase IV–V (2040–2050): Preventive & Resilient Health System

- Full integration of primary, preventive, and mental health services
- Export surplus vaccines and generic drugs to Sahel neighbors
- Achieve WHO benchmarks on universal health coverage and resilience
- Institutionalize climate-health early warning systems for disease and disaster response



# 10. Governance, Legal Systems & Institutional Reform

#### **Current State**

- Chad operates under a centralized presidential system, though the country remains in a transitional political phase following President Idriss Déby's death in 2021 and the subsequent leadership of Mahamat Déby Itno.
- According to Transparency International, Chad consistently ranks among the
  most corrupt nations in the world (ranked 167/180 in 2023). Corruption affects
  all levels from customs and procurement to judiciary and public service
  delivery.
- Judicial independence is weak, with widespread perceptions of bias, underfunding, and political interference.
- Decentralization laws exist but are poorly implemented. Many local governments lack funding, capacity, or legal clarity to carry out development mandates.
- Citizens have limited trust in formal institutions, with a justice system that is
  often slow, opaque, and inaccessible particularly in rural and conflict-prone
  regions.

*Impact:* Poor governance and weak institutional enforcement undermine investor confidence, deter long-term planning, and fragment national cohesion. Rule of law and functional administration are prerequisites for any meaningful transformation.



### **Future Vision (2050)**

A transparent, accountable, and decentralized governance structure in Chad, powered by digital systems and community-driven institutions that support development, protect rights, and uphold the rule of law.

- Functional, people-centered governance at all levels
- Corruption drastically reduced through transparency and digitization
- Legal system aligned with international investor norms and human rights
- Strong, decentralized institutions capable of delivering public services

### Strategic Actions by Phase

# Phase I (2025–2030): Rule of Law Foundations

- Establish Special Anti-Corruption Courts and Tribunals with international oversight
- Initiate public sector digitization (civil registry, procurement, payroll)
- Pass an Investment Protection and Arbitration Law in line with AfCFTA norms
- Launch "Justice for All" Program to train local legal aid officers and deploy mobile legal units



#### Phase II (2030–2035): Institutional Decentralization

- Operationalize Provincial Development Authorities (PDAs) modeled on India's DM system
- Transfer select fiscal and planning powers to local governments
- Build local administrative infrastructure (offices, civil registries, tax units)
- Introduce Public Service Digital Performance Dashboards

#### Phase III (2035–2040): Governance Modernization

- Expand e-Governance platforms for licensing, land, and citizen services
- Enforce Open Procurement Law with real-time public contract visibility
- Create National Civic Data Platform for feedback and grievances
- Strengthen Ombudsman and National Audit Institutions with legislative power

#### Phase IV–V (2040–2050): Trust and Transparency State

- Legal reforms to balance customary and statutory law under a codified system
- Digital ID-based public service delivery (justice, finance, welfare)
- Chad joins regional governance performance indices and peer reviews
- Establish Chad Institute for Public Administration & Leadership for long-term civil service excellence



# Strategic Recap: Building the New ROC

Over the course of this comprehensive national development proposal — *Project Chad Rising 2050* — we have laid out a pragmatic, investment-driven roadmap to transform the Republic of Chad from a landlocked, aid-dependent nation into a dynamic Sahelian hub of regional commerce, renewable energy, and inclusive prosperity.

#### Where Chad Stands Today:

- Among the lowest Human Development Index (HDI) rankings globally (UNDP 2023)
- <10% access to electricity and severe infrastructure deficits</li>
- Over 40% of GDP dependent on extractive industries, with minimal value addition
- High food insecurity despite abundant arable land
- Poor institutional trust and a fragile governance environment
- Youthful population with minimal access to modern education or healthcare
- Regional vulnerability to climate change, desertification, and displacement

# What Chad Can Become by 2050:

- A renewable energy exporter anchored by solar mega-projects and a Sahel-wide green grid
- A fully integrated domestic economy built on modern transport, agriculture, and trade corridors
- An agro-industrial and food export leader across millet, sorghum, livestock, and oilseeds
- A technology-connected society through digital ID systems, fintech, and mobile access
- A stable, rules-based governance framework welcoming FDI, diaspora returns, and innovation
- A regional center for resilience, human capital, and climate-smart growth.



# Recap of the 10 Development Pillars

# 1. Transport & Connectivity Infrastructure

Connect isolated provinces to domestic and cross-border markets via roads, rail, air, and dry ports.

## 2. Energy & Electrification

Achieve energy access for 60%+ of the population by 2040 through solar, hybrid grids, and regional power pools.

# 3. Water, Sanitation & Urban Services

Guarantee access to clean water, sanitation, and flood-protected urban environments.

# 4. Affordable Housing & Urban Development

Enable dignified, serviced housing and formal land ownership amid growing urbanization.



### 5. Agriculture & Food Security

Expand agro-processing, irrigation, and food logistics to feed the region and create rural jobs.

#### 6. Mining & Industrial Processing

Shift from raw export dependency to in-country processing of oil, gold, limestone, and salts.

### 7. Digital Infrastructure & Innovation

Build a digitally connected Chad for e-services, mobile finance, and tech-driven jobs.

# 8. Education, TVET & Human Capital Development

Equip youth with technical skills aligned with industry and job market demands.

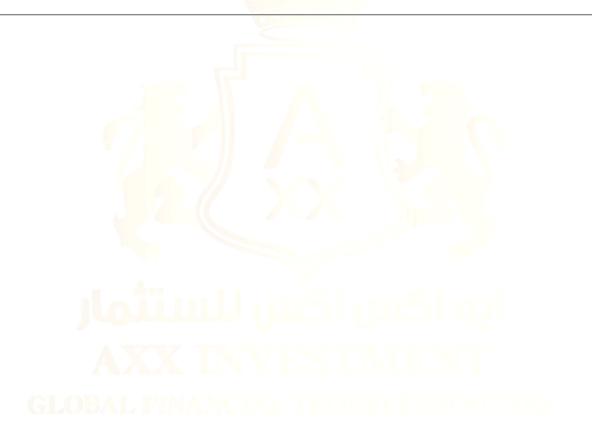
#### 9. Healthcare & Social Resilience

Create a nationwide basic health coverage system with rural access and disease prevention.



# 10. Governance, Legal Systems & Institutional Reform

Build accountable, transparent, and decentralized governance rooted in trust and justice.





# A Path of Sequenced Growth, Not Instant Change

The transformation of Chad will not be an overnight phenomenon — nor should it be. Rather, *Project Chad Rising 2050* offers a structured, sequenced path to long-term prosperity. Each phase is designed to be both **technically feasible** and **financially attractive**, ensuring early wins to unlock further investment.

#### A Realistic Approach

Rather than attempting to fix every challenge simultaneously, the project starts with **high-impact priorities** — infrastructure, electrification, food security, and trade access — that lay the foundation for subsequent reforms in education, digital services, governance, and climate resilience.

#### Private Capital, Public Framework

The model centers on **external financing and implementation** by trusted international partners, with the Chadian government providing sovereign support, regulatory coordination, and facilitation. This reduces fiscal strain while delivering real results.

#### Regional & Continental Synergy

Chad's central Sahel location offers the unique opportunity to **connect North, West, and Central Africa** through physical infrastructure and trade corridors. From the Port of Douala in Cameroon to Libya's southern frontier, Project Chad Rising is a driver of continental integration aligned with **AfCFTA** and **AU Agenda 2063**.

#### Investing in People, Not Just Projects

Each investment — whether a road, school, clinic, or data center — is seen not as a standalone project but as a **platform for social mobility and human development**. With over 60% of Chad's population under age 25, this approach ensures intergenerational dividends.

**Project Chad Rising 2050** is not a theoretical plan. It is an executable blueprint for growth, anchored in real-world best practices and tailored to Chad's realities. It delivers not just hope — but structure, funding channels, and a sequenced path to national transformation.



# Final Conclusion & Call to Partnership

Your Excellency,

Project **Chad Rising 2050** is not merely a vision — it is a *structured, investable,* and executable national transformation programme designed to elevate Chad into a position of regional leadership, economic stability, and human-centered prosperity over the next 25 years.

By strategically sequencing development across 10 critical sectors, and leveraging global partnerships for financing, engineering, and delivery, Chad can fast-track its emergence as a resilient and self-reliant economy — without burdening the public treasury. The only requirements from the Government of Chad are:

- Full sovereign endorsement of the programme framework
- A clear legal and regulatory facilitation mechanism
- Designation of a central coordinating authority for collaboration

AXX Investment stands ready to mobilize technical, institutional, and financial partnerships from across the globe — including sovereign funds, multilateral agencies, infrastructure contractors, technology providers, and development experts — all willing to co-invest in the future of Chad, under a stable and government-endorsed programme umbrella.



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# What We Request from the Government of Chad

To operationalize **Project Chad Rising 2050** in a manner that is investor-friendly, transparent, and sovereign-aligned, we respectfully request the following support from the Government of the Republic of Chad:

#### 1. Official Endorsement of the Programme

- A presidential or ministerial-level declaration recognizing *Project Chad Rising 2050* as a government-supported strategic development initiative.
- Appointment of a liaison office or inter-ministerial task force to serve as the official counterpart.

# 2. Legal & Regulatory Facilitation

- Issuance of a sovereign decree or MoU granting AXX Investment the mandate to coordinate external investment and implementation partners for the programme.
- Streamlined approvals for infrastructure, land use, customs exemptions, and PPP frameworks as required.

# 3. Non-Financial Government Support

- Provision of government land parcels, permits, and rights-of-way for national infrastructure projects.
- Access to public-sector data and national development plans for coordination purposes.



#### 4. Sovereign Protection of Projects & Investors

- Guarantees of non-expropriation, legal protections, and investor security in line with international norms (e.g. ICSID, AfCFTA protocols).
- Establishment of a single-window investment facilitation system.

### 5. Joint Branding & Diplomacy

- Co-branding of *Project Chad Rising* across official communication channels.
- Diplomatic assistance to invite relevant multilateral agencies and strategic partners.

This model does not request budgetary funding from the Chadian government. It instead seeks **political facilitation and sovereign coordination**, allowing external capital, expertise, and delivery partners to operate efficiently under your government's oversight.

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# 📚 Next Step: In-Depth National Development Study

To translate the vision of Project Chad Rising 2050 into a fully operationalized national programme, AXX Investment proposes the immediate commissioning of an In-Depth National Development Study in collaboration with relevant ministries and planning authorities of the Republic of Chad.

#### **Objectives of the Study:**

- Validate sector-by-sector priorities using current national data and field assessments.
- Establish realistic targets for each phase (2025–2030, 2030–2035, etc.) aligned with Chad's Vision 2030 and AU Agenda 2063.
- Quantify financing needs, investor ROI, and socioeconomic returns.
- Map national resource allocations (land, logistics, workforce) to project opportunities.
- **Identify legislative reforms or enabling frameworks** required for successful delivery.

#### **Deliverables:**

- A 50+ page implementation masterplan, including financial models, project pipelines, and policy recommendations.
- Interactive investor decks, sector-specific proposals, and diplomatic briefing documents.
- Readiness assessments for initial catalytic projects across infrastructure, energy, agriculture, and logistics.



# **Timeline & Methodology:**

- Duration: Open-ended
- Method: Field missions, ministry workshops, economic modeling, and peer-review
- Partners: Local institutions, international consultants, development finance institutions (DFIs)

Once approved by your esteemed office, AXX Investment will mobilize technical experts, development economists, and sectoral advisors to begin this study — laying the foundation for structured investment mobilization and multilateral partnership engagement in 2025.



# 💡 A Future Within Reach

The gains to the **Republic of Chad** — should *Project Chad Rising 2050* be adopted — are not aspirational abstractions. They are measurable, achievable, and **multi-generational in impact**::

- Accelerated GDP growth fueled by agro-industrial expansion, mineral value addition, and regional trade connectivity.
- Millions of decent jobs generated through transport, housing, electrification, and digital service ecosystems.
- Improved living conditions for tens of millions of Chadians through access to clean water, reliable power, quality healthcare, education, and secure housing.
- Chad as a regional hub, repositioned at the heart of Central Sahel–North–East Africa logistics, digital innovation, and clean energy exports.
- National stability, confidence, and dignity rooted in visible progress, youth inclusion, and sovereignty-driven development.



# Closing Note from AXX Investment:

We at **AXX Investment (AXX)** submit this proposal with deep respect for the **Chadian people** and unwavering commitment to the sovereignty of the **Republic of Chad**. Our role is simple: to bring **structure where there is potential**, and **capital where there is vision**.

Let Project Chad Rising 2050 be the bold catalyst that reshapes Chad's national destiny — from landlocked to connected, from overlooked to essential.

We now humbly seek your government's endorsement and facilitation, so we may begin moving from blueprint to reality.

"Chad Rising" is not just a name — it is a **generational awakening**, and one we believe will stand as a model of **homegrown**, **investor-led African transformation**.

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