GLOBAL WATER LEADERSHIP PROGRAMME

Global Water Partnership

Central African Republic snapshot on water and climate

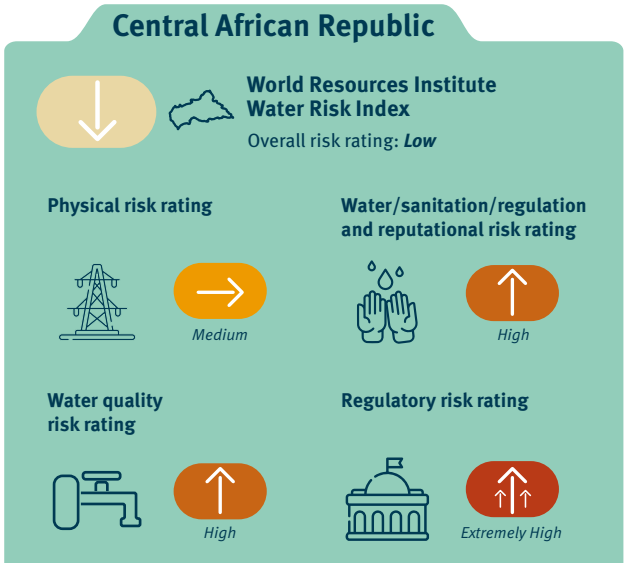
About the country snapshot

This country snapshot provides an at-a-glance understanding of the current national water and climate resilience status. It presents the latest information across key climate-smart decision-making categories (water resources and water and sanitation, SDG 6, climate change and disaster risk reduction, financing, governance, gender mainstreaming and social inclusion) in an easily digestible format, extracting the most important details from national and/or international analysis. No data was independently collected for this baseline snapshot, which will be complemented by a follow-up snapshot in mid-2024 to assess incremental progress in our journey to resilience.

1. Central African Republic water resources and water, sanitation, and hygiene

The Central African Republic (CAR) is a water-rich country straddling two of Africa's most important river basins: the Chari River, which provides close to 90 percent of inflow into Lake Chad, and the Ubangi River, the major tributary of the Congo River. With a flow of 4,000 m³ per second, the Ubangi has a much greater discharge than the Blue and White Nile combined, which is 2,800 m³ per second by comparison. Close to 90 percent of the water abstracted is used for agriculture, forestry, and fisheries; 9 percent is used for services such as potable water; and less than 1 percent goes to industry.

Although the World Resources Institute (WRI) CAR Water Risk Index provides an overall low score, the physical risk is medium with respect to riverine floods, but high with respect to threats to water quality from untreated wastewater and lack of sanitation. Meanwhile, regulatory and reputational risks are rated as extremely high.



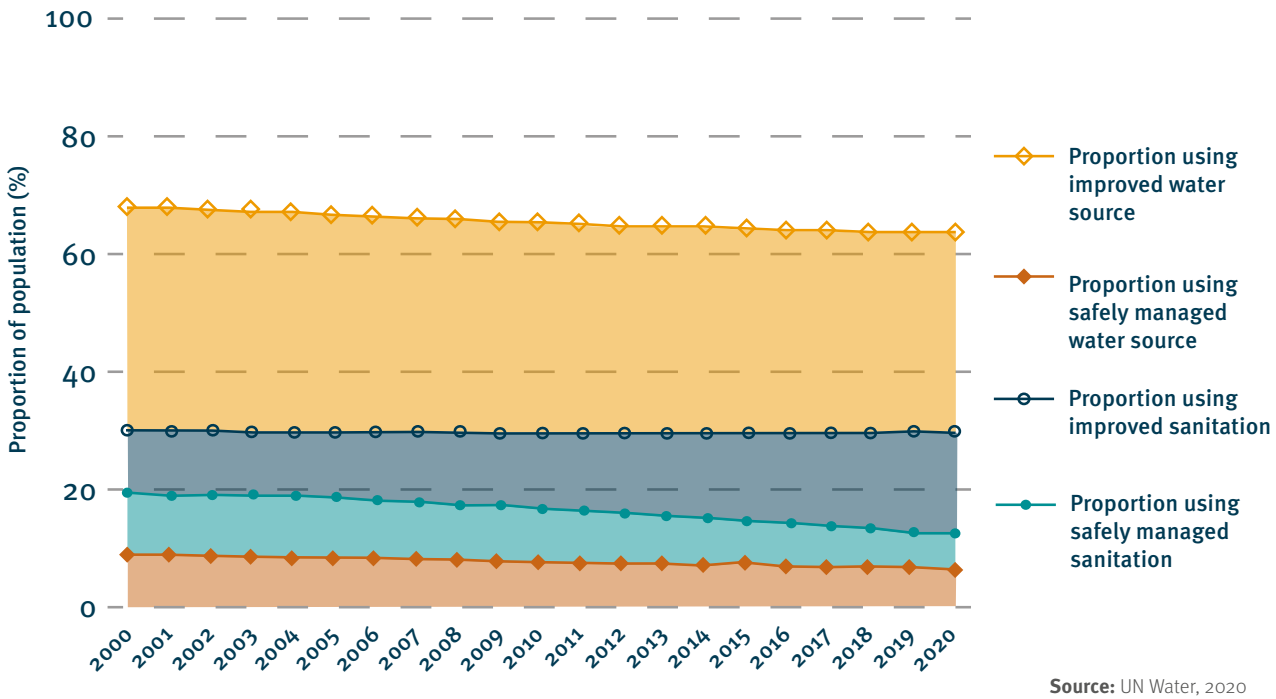
While CAR has considerable renewable water resources, barely 30 percent of the population has access to drinking water: rates range from 36.5 percent in Bangui, the capital, to 27 percent in rural areas. The population has increased rapidly, from about 1.5 million people in 1960 to 4.8 million in 2020, 40 percent of which is urban. Access to critical water, sanitation, and hygiene (WASH) services is additionally complicated by a prolonged period of political instability that has resulted in one-seventh of the population – 658,000 people – being internally displaced. In all, 2.8 million people in CAR (roughly half of the population) need humanitarian assistance, including WASH services.

Bangui's water supply infrastructure is archaic and poorly maintained. Even at full capacity, it falls short of demand. Water supply systems are limited to Bangui and a few major towns. Most rural households use wells with hand-operated pumps. CAR has no integrated sanitation system combining sewerage networks and wastewater treatment. Most urban households have private latrines; however, this is not the case in rural areas, where open defecation is prevalent, with environmental and public health risk implications (African Development Bank, 2017).

This brief reviews data from existing global frameworks that are used at the country level to plan, finance, and manage water resources to meet the challenges related to climate change and development.

2. Sustainable Development Goal 6: Joint Monitoring Programme and Global Environmental Management System

Figure 1: Access to water and sanitation in CAR, 2000–2020



Source: UN Water, 2020

The Joint Monitoring Programme report covering 2000–2020 demonstrates that CAR's population growth and substantial population transfers from rural to urban centres have put a strain on existing water and, particularly, sanitation services (Figure 1). For drinking water, the majority of the Central African population relies on groundwater, and local sources are situated primarily in tropical woods. Despite improvements to water supply and sanitation, inadequate infrastructure development and financial and political challenges have slowed progress. The greatest WASH issues have been encountered in the more distant and sparsely populated regions of CAR. Low access to water has been mainly attributed to the protracted conflict in the country and subsequent deterioration of water facilities, as well as vandalism. According to the United Nations Office for the Coordination of Humanitarian Affairs (2022), WASH needs increased by 13 percent in 2021, with an additional 300,000 people requiring assistance to access safe drinking water and sanitation facilities.

The National Recovery and Peacebuilding Plan 2017–2021 is a critical component of the new social contract that seeks to reverse the collapse of security and to restore essential services. It prioritizes water, education, and health as core to Pillar 2, with a budget of US$146.7 million aimed at:

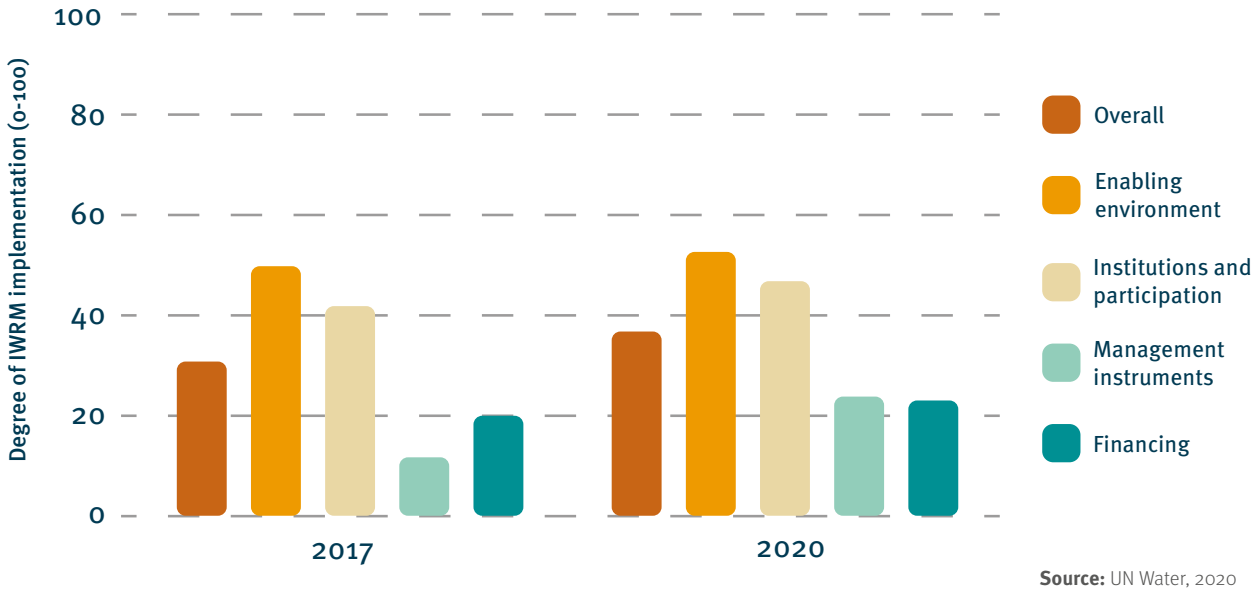
+ improving access to safe drinking water and sanitation for 1.5 million people
+ strengthening government structures to enhance service delivery
+ establishing institutional, legal, and regulatory instruments
+ creating effective tools to improve knowledge, monitoring, and evaluation of the sector
+ undertaking social and community-based communications strategies to alter norms and behaviours to ensure that WASH interventions are sustainable.

Sustainable Development Goal (SDG) 6 targets related to the **Global Environmental Management System** (GEMS), which reviews the status of water resources, report that CAR has low water stress, with less than 1 percent of renewable water being extracted. The proportion of water bodies with good ambient quality exceeds 85 percent.

The yearly mean precipitation is 1,343 mm, with the country receiving the heaviest precipitation from May through October. The northern part of the country tends to have a more distinct and longer dry season, with very little rain from December to February; while the southern part of the country still sees several days of rainfall per month, even during this drier season. Given the low levels of formal water infrastructure, the majority of the population of CAR relies on groundwater. During the dry season, insufficient water supplies and poor water quality increase the susceptibility to numerous waterborne diseases, such as typhoid, diarrhoea, and malaria. Improved water quality, storage, and management are required to lower these risks.

The degree of integrated water resources management implementation is low, although the procedures for public participation in WASH and water resources management are largely in place. As illustrated in Figure 2, management instruments and finacing options are most notably lacking.

Figure 2: Degree of integrated water resources management implementation (0–100) in Central African Republic, progress over time, by dimension



Source: UN Water, 2020

3. Climate change and disaster risk reduction

Currently, CAR boasts adequate renewable water resources (UN Water, 2020). However, rising temperatures (projections show a change in annual mean temperature from 3.1°C to 5.7°C by end of the century) are contributing to excessive groundwater extraction and leading to declining groundwater levels (International Research Institute for Climate and Society, 2020). High evapotranspiration and increasing sedimentation of water bodies are drying up surface water sources as well (United States Agency for International Development, 2018). The increased aridity and dryness in CAR is also predicted to lead to land degradation, loss of biodiversity and surface water, severe effects on agricultural production, and an increase in the likelihood of forest fires. Droughts are already widespread in CAR and have severe effects on the country's water supplies. The establishment of early warning systems, the creation of drought-resistant crop types, and the improvement and expansion of access to medical services are required for disaster risk reduction.

Moreover, an increase in the frequency of intense rainfall events and flooding contaminates water supplies, particularly in metropolitan areas (Haynes, 2019). Floods are recurrent and destructive natural disasters account for the greatest proportion of economic and human losses in CAR. More than 10,000 houses were destroyed affecting 60,000 people in November 2019, for example. It is anticipated that climate change will increase these problems. Therefore, effective disaster risk reduction plans need to include vaccination

programmes, extensive medicine distribution, public awareness campaigns, access to safe water supplies, and improved sanitation.

Finally, climate change consequences drive seasonal relocation of communities during drought or flood disasters (Nguimalet, 2018), adding to the internal displacement challenges already being experienced.

Public consultations have confirmed that all regions of CAR are vulnerable to climate change, with the key most vulnerable sectors being: (i) agriculture and food security; (ii) forestry and agroforestry; (iii) water resources; (iv) health; (v) energy; and (vi) natural disasters.

CAR submitted its revised Nationally Determined Contribution (NDC) in October 2021. It posits a vision of nature-based adaptation, stating that "the vulnerability to changes in the climate and a lack of ability to adapt to their adverse impacts represent serious threats to the management of ecosystems and other agricultural and renewable natural resources, social cohesion, stability and sustainable development." The combination of engineered and nature-based solutions are aimed at increased resilience; reduced risk; biodiversity protection; energy, water, and food security; green growth; and human well-being.

4. Financing

Almost all (94.9 percent) of CAR's investment expenditure is provided by external financial partners, either as grants or as loans with low interest rates.

The World Bank Forest Carbon Partnership is providing US$3.8 million for the REDD+ Readiness Project, with US$2.7 million already disbursed by the end of 2020, to develop a national REDD+ strategy.

CAR has not yet been able to tap into the Green Climate Fund (GCF). The country received two GCF Readiness Grants in 2016 and 2017, with the assistance of UNDP and the Commission for Central African Forests. In 2022, CAR was awarded a new GCF Readiness Grant for US$450,000 through Global Water Partnership (GWP). Assistance through the Readiness Fund will address challenges, including:

- lack of tools and instruments for the nationally designated authority to track and manage climate financial flows
- lack of knowledge and understanding of GCF requirements across most stakeholders, including prospective implementing entities, civil society organizations, and the private sector
- inadequate attention in climate proposals to gender mainstreaming and social inclusion
- speeding up CAR's GCF pipeline by developing and submitting complete concept notes, including two for the water sector.

While investments in water resource and WASH infrastructure appear large, the costs of inaction are likely to be even larger. This can be demonstrated in the case of Lake Chad, which was the world's sixth largest inland water body in the 1960s, with a water surface area of 25,000 km². During the last 40 years, it has shrunk to 8 percent of its original water surface area (2,000 km²) (Lake Chad Basin Commission, 2011). Lake Chad's vulnerability is mainly attributed to population growth, climate change, and unplanned irrigation on the Chari River, the source of more than 90 percent of the lake's water. The discharge of the Chari River has decreased by approximately 75 percent, and there have been plans to augment it by reversing some tributaries of the Ubangi River to channel the water north, ranging in cost from US$10 billion (CIMA International, 2011) to US$50 billion (Celani, 2018).

5. Governance

Formal institutional management frameworks exist at the basin level. The Lake Chad Basin Commission was created in 1964 by Cameroon, Niger, Nigeria, and Chad, with CAR joining in 1997. The International Commission of the Congo-Ubangi-Sangha Bassin brings together the countries bordering the Congo Basin (the Democratic Republic of the Congo, the Republic of the Congo, CAR, and Cameroon) with a focus on development of critical economic infrastructure including hydropower and water transport between the Republic of the Congo, the Democratic Republic of the Congo and CAR.

As per the CAR Water Code of 2006, the country is responsible for the integrated management of all water resources and facilities, and for providing drinking water. The Government of CAR additionally identified WASH as one of the eight priority sectors in its policy and planning framework. This is reflected in the Plan for the Recovery and Consolidation of Peace in the Central African Republic (2017–2021), which committed to providing access to drinking water, hygiene, and sanitation services to an additional 1,500,000 people by the end of 2021 (Africa Finance Ministers' Meeting, 2020).

6. Gender and social inclusion

There is little data available about the degree of gender and social inclusion in water governance or policy. Most available data does not investigate these issues and focuses on more general benchmarks of development.

CAR is ranked 188th out of 189 countries in the 2020 United Nations Human Development Report. More than 71 percent of the population is poor. The maternal mortality rate is among the highest in the world (882 per 100,000 live births), and the under-five child mortality rate is the sixth highest in the world (UNICEF, 2020).

Education and gender equality are low in CAR. The poor quality of basic education, the lack of secondary school for girls, and the 11,000 reported incidences of violence against women and girls each year (2016), of which 74 percent involve minors, continue to be major problems.

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About the Global Water Leadership (GWL) programme

Effective and equitable water management is becoming increasingly complex, and increasingly important, as climate change impacts add new uncertainty to policy decisions and financial investments. The Global Water Leadership in a Changing Climate programme (GWL) is working intensely in ten countries, bringing together key stakeholders and decision makers from two water management pillars – water resources and water and sanitation – to develop holistic, integrated policies and plans to enhance national water and climate resilience. The programme is funded by the UK Foreign, Commonwealth and Development Office (FCDO) and implemented by Global Water Partnership (GWP), the United Nations Children's Fund (UNICEF), the Sanitation and Water for All Partnership (SWA) and the World Health Organization/UNICEF Joint Monitoring Programme (JMP).

Countries in the GWL programme

1. Bangladesh
2. Central African Republic
3. Chad
4. Madagascar
5. Malawi
6. Nepal
7. Rwanda
8. State of Palestine
9. Tanzania
10. Uganda

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