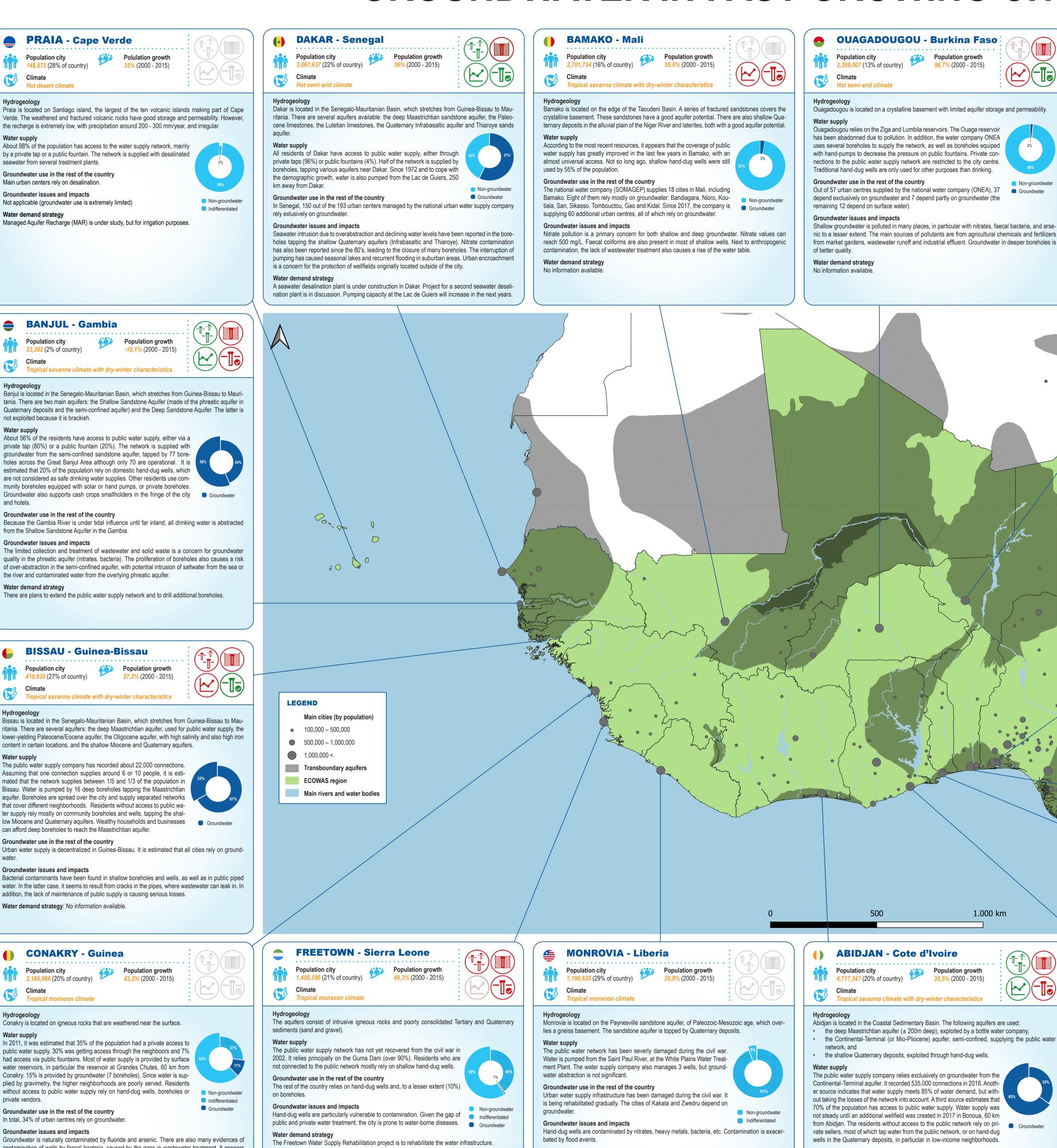
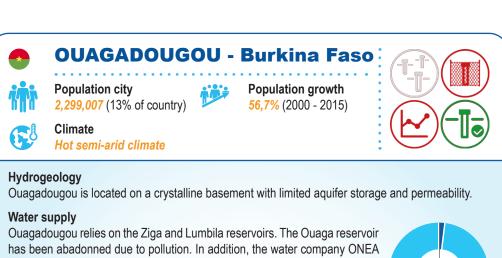
GROUNDWATER IN FAST GROWING CITIES IN WESTERN AFRICA

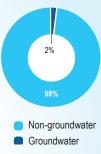


contamination of wells by faecal bacteria, caused by the gaps in wastewater treatment. It appears that a majority of shallow hand-dug wells doesn't meet WHO standards. Water demand strategy

An additional pumping station of surface water will be built at the Kale dam.

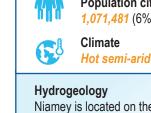


uses several boreholes to supply the network, as well as boreholes equiped with hand-pumps to decrease the pressure on public fountains. Private connections to the public water supply network are restricted to the city centre.



Out of 57 urban centres supplied by the national water company (ONEA), 37 depend exclusively on groundwater and 7 depend partly on groundwater (the

nic to a lesser extend. The main sources of pollutants are from agricultural chemicals and fertilizers from market gardens, wastewater runoff and industrial effluent. Groundwater in deeper boreholes is



local aquifer. Water supply

vendors.

Groundwater issues and impacts

bated by floods.

Water demand strategy

Not available

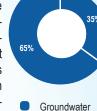
Water demand strategy

Abidjan is located in the Coastal Sedimentary Basin. The following aquifers are used:

the deep Maastrichtian aguifer (± 200m deep), exploited by a bottle water company, the Continental-Terminal (or Mio-Pliocene) aquifer, semi-confined, supplying the public water

the shallow Quaternary deposits, exploited through hand-dug wells.

The public water supply company relies exclusively on groundwater from the Continental-Terminal aquifer. It recorded 535,000 connections in 2018. Another source indicates that water supply meets 85% of water demand, but without taking the losses of the network into account. A third source estimates that 70% of the population has access to public water supply. Water supply was not steady until an additional wellfield was created in 2017 in Bonoua, 60 km from Abidjan. The residents without access to the public network rely on private sellers, most of which tap water from the public network, or on hand-dug

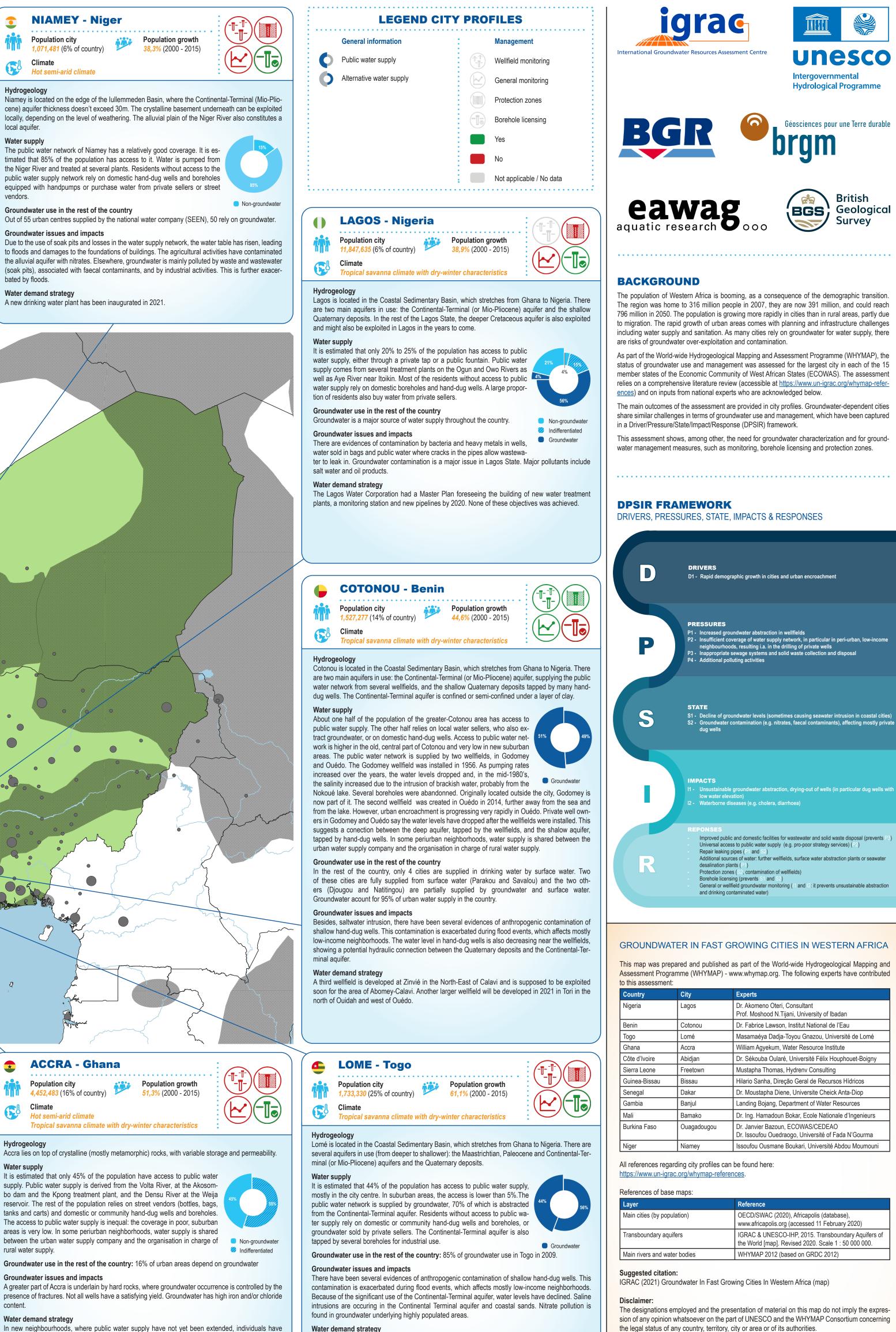


1.000 km

Groundwater use in the rest of the country Most of the large cities in the country rely on surface water (Bouaké, Yamoussoukro, Daloa, Korhogo, Man, etc.), either from reservoirs or from pumping stations on the rivers. Villages and small cities that are not supplied by the reservoirs rely mostly on groundwater.

Groundwater issues and impacts Anthropogenic contamination was found in several hand-dug wells, indicated by high nitrate, sulfate and chloride concentrations and the presence of bacteria. Near the coast, saline water is found in hand-dug wells. Nitrate contamination was also reported in boreholes supplying the public water network, like the wellfield of Plateau, which was abandonned.

Water demand strategy: A treatment plant is in construction on the Mé River, 40 km from Abidian. which should be ready in 2021.



Water supply rural water supply.

Groundwater issues and impacts

Water demand strategy

drilled their own private boreholes.

Additional boreholes are drilled in 2020. There is the Sogkagakope-Lome project, under study, for bringing water from the Volta River in Ghana, 80 km away from Lome.

whatsoever with regard to this information.



roachment	
articular in peri-urban, low-income ate wells ection and disposal	
seawater intrusion in coastal cities) ntaminants), affecting mostly private	
of wells (in particular dug wells with	
and solid waste disposal (prevents P3) strategy services) (P2) vater abstraction plants or seawater	
it prevents unsustainable abstraction	

w.whymap.org. The following experts have contributed
Experts
Dr. Akomeno Oteri, Consultant Prof. Moshood N.Tijani, University of Ibadan

Experts

Reference

Dr. Fabrice Laws	son, Institut National de l'Eau
Masamaéya Dao	lja-Toyou Gnazou, Université de Lomé
William Agyekun	n, Water Resource Institute
Dr. Sékouba Ou	aré, Université Félix Houphouet-Boigny
Mustapha Thom	as, Hydrenv Consulting
Hilario Sanha, D	ireção Geral de Recursos Hídricos
Dr. Moustapha D	iene, Universite Cheick Anta-Diop
Landing Bojang,	Department of Water Resources
Dr. Ing. Hamado	un Bokar, Ecole Nationale d'Ingenieurs
1	un, ECOWAS/CEDEAO edraogo, Université of Fada N'Gourma

Issoufou Ousmane Boukari, Université Abdou Moumouni

OECD/SWAC (2020), Africapolis (database), www.africapolis.org (accessed 11 February 2020) IGRAC & UNESCO-IHP, 2015. Transboundary Aquifers of

the World [map]. Revised 2020. Scale 1 : 50 000 000. WHYMAP 2012 (based on GRDC 2012)

This map was compiled from disparate sources of information. The authors give no warranty to the quality or accuracy of the information in this map and assumes no responsibility or liability

CC 0 BY SA