West African Papers

Accessibility and Infrastructure in Border Cities

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WEST AFRICAN PAPERS

April 2019 **No. 23**

ACCESSIBILITY AND INFRASTRUCTURE IN BORDER CITIES

"Cities" Collection

Under the direction of Marie Trémolières and Olivier J. Walther

Also in this Collection:

"Regional Integration in Border Cities", No. 20
"Population and Morphology of Border Cities", No. 21
"Businesses and Health in Border Cities", No. 22

SAHEL AND WEST AFRICA Club Secretariat

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WEST AFRICAN PAPERS

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Abstract

This report, part of the "Cities" collection, analyses road accessibility, transport corridors and checkpoints set up in border towns in West Africa. An innovative model shows that the population base of border towns could be 14% greater if there were no delays at border crossings. The existence of roadside checks decreases the size of this population base from 12 to 50%. A study of 59 jointly planned or operated border posts in sub-Saharan Africa shows that trade facilitation runs up against the special interests of public servants and private-sector actors making a living from regional integration frictions.

Key words: road accessibility, infrastructure, urban networks, transport corridors, border posts, regional trade
JEL classification: O18, O21, R41, R42

About the collection

One of the most dramatic transformations taking place in Africa, urbanisation is the result of growing demographics and societal and economic changes. Its dynamics and impacts need to be identified, mapped, measured and planned for in order to build sustainable policy options. This is the purpose of the "Cities" collection.

The Sahel and West Africa Club

The Sahel and West Africa Club (SWAC) is an independent, international platform. Its Secretariat is hosted at the Organisation for Economic Co-operation and Development (OECD). Its mission is to promote regional policies that will improve the economic and social well-being of people in the Sahel and West Africa. Its objectives are to improve the regional governance of food and nutrition security and improve the understanding of ongoing transformations in the region and their policy implications through regional, spatial and forward-looking analyses. SWAC Members and partners are Austria, Belgium, Canada, CILSS, the ECOWAS Commission, the European Commission, France, Luxembourg, the Netherlands, Norway, Switzerland, the UEMOA Commission and the United States. SWAC has memorandums of understanding with the NEPAD Agency and the University of Florida (Sahel Research Group).

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Acronyms and abbreviations

AfDB	African Development Bank
ALCO	Abidjan-Lagos Corridor Organisation
CAU	Commission of the African Union
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Development
EAC	East African Community
ECOWAS	Commission of the Economic Community of West African States
EU	European Union
IOM	International Organization for Migration
NEPAD	New Partnership for Africa's Development
PIDA	Programme for Infrastructure Development in Africa
PPP	Public-private partnerships
SKBo	Sikasso-Korhogo-Bobo-Dioulasso region
UEMOA	West African Economic and Monetary Union
UNECA	United Nations Economic Commission for Africa

This Note is based on the Africapolis database produced by SWAC. The data are based on a spatial approach and apply physical (a continuously built-up area) and demographic criterion (more than 10 000 inhabitants) to define an urban agglomeration. The term city is used in this report to mean agglomeration.

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Executive summary

This report, composed of four *West African Papers* (nos. 20, 21, 22, 23) is the result of a systematic analysis of the role West African border cities play in the process of regional integration. Based on a multidimensional mapping of 18 countries, the report analyses the local dynamics that have developed in urban areas, the impact distance has on national cohesion and the impact territorial divisions have at the international level.

Density, distance and division

- At the local level, the study of demographic and morphological changes identifies the effects density has on border cities at the local level. It shows that since the mid twentieth century, the growth of border cities has almost always been greater than that of other cities in the region. This rapid growth has been especially visible within 50 kilometres of national borders, where the most dynamic markets are located. Growth has been particularly strong along Nigeria's borders and in the Gulf of Guinea between Benin and Togo. The report also confirms that border cities have very specific features. Twenty-seven of them are cross-border centres separated by land or river borders or are located on a coastline. These cross-border agglomerations emerged without a concerted development plan and remain very dependent on each other.

- At the national level, the impact of distance on border cities is studied by looking at health services and formal businesses. The map of regional health coverage shows that West African border areas are highly heterogeneous, and that the potential of harmonising the health policies of the different countries has been largely untapped. The mapping of formal businesses specialising in certain sectors of strategic importance to regional integration shows that most are located in political and/or economic capitals where decisions are made concerning customs policies as well as import/re-export strategies, and where major transportation and communications infrastructure is located. These results suggest that the lack of public investment in health services as well as roadway and education infrastructure in border regions can potentially pose major problems for national cohesion.

- At the international level, the effects of territorial divisions can be shown using an accessibility model developed to show the effects borders have on regional interactions. The results show that the population base for border cities could be 14% larger if border crossings did not impact the flow of goods and people and 12 to 50% larger without roadside check-

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points. Between Benin, Niger and Nigeria, an analysis of the condition of the road network shows that the combined population base of eight border cities would increase by one-third if there was no waiting at the borders. An exhaustive list of adjacent border posts in place or planned by national governments or regional organisations throughout sub-Saharan Africa further shows that trade facilitation runs up against the special interests of public servants and private-sector actors making a living from regional integration frictions. In West Africa in particular, few states are now able to benefit from the newly built border post structures in the region, most of which are not operational.

Main obstacles to cross-border urban development

The report confirms that cross-border cities lack the infrastructure needed to develop as both centres of local innovation and regional commercial hubs. This double constraint is expressed locally by urban development that is largely spontaneous and by a lack of markets, storage facilities and urban roads as well as medical, social and educational facilities. Border cities also suffer from congestion and a lack of upkeep on the road and rail infrastructure connecting them to the rest of the nation and neighbouring countries. The lack of productive, socio-educational and business investment typical of border cities considerably reduces the potential for agglomeration economies created by urban concentration. It also amplifies the negative effects of distance at the national level and imposes considerable constraints on regional trade.

From an institutional point of view, the main obstacle to the development of border cities is the low financial capacity of local and regional governments. While legal and institutional decentralisation has reached an acceptable level within the region, the tools and financial means needed to implement them are still limited. Low levels of economic independence and poor collection rates combined with a tendency to refrain from increasing taxes during election cycles are making the situation worse. Consequently, local governments lack the means to make the decentralised investments that could help them realise their urban and cross-border potential.

Main recommendations

The demographic and economic significance border cities have for regional integration justifies the need for place-based policies suited to their specific features.

- Development policies must foster the potential benefits of urban density at the local level by supporting the establishment of urban plans that maximise intra-urban interaction. The agglomeration economies created by high urban density can potentially reduce the cost of transportation and communications, foster innovation and make larger numbers of

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agricultural and manufactured products more widely available. These agglomeration economies would, however, be more easily exploitable if cities were to develop in keeping with a development plan and in concert with neighbouring border cities. The rapid population growth and urban sprawl seen today in West African border cities should encourage governments to sustainably invest in supporting these dynamics if they wish to make the most of agglomeration economies.

- Development policies should focus on reducing the distance separating border cities from other hubs in the urban network at the national level so as to minimise the inconvenience associated with their geographical marginalisation and to foster national cohesion. The development of border cities goes hand-in-hand with national policies aimed at projecting national government authority and providing services throughout the national territory.

- Development policies must continue to reduce the friction generated by the 32 000 kilometres of land borders that separate the countries of West Africa at the international level. This can be achieved by facilitating the mobility of goods, people, capital and ideas over short and long distances. The transportation corridors, dry docks, joint border posts, free trade zones and pipelines currently put in place by regional organisations and national governments must be supported by development policies.

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Road accessibility of West African border cities

This chapter analyses the accessibility by road of border cities in West Africa. An innovative model maps the number of people that can be reached in under four hours from any city located less than 20 kilometres from a land border. It shows that the population base for border cities could be 14% larger if border crossings did not impact the flow of goods and people. As for roadside checkpoints, they reduce the size of border city population bases by 12%. For some urban centres located on the Gulf of Guinea, checkpoints reduce road accessibility by more than half. Between Benin, Niger and Nigeria, an analysis of the condition of the road network shows that the combined population base of eight border cities would increase by one-third if there was no waiting at the borders.

Distance, transport infrastructure and city networks

The access to goods and services provided by urban centres is a key variable in West Africa's socio-economic development. Cities that are well connected to transport networks serve as markets for local agricultural products and as hubs for regional trade. The products available in these cities are more numerous and diverse, as well as lower in cost than in towns that are less accessible, due to the competition between traders and because they can more easily source their products from outside of the region. Cities that are well connected to transport networks also foster social interaction between people with different ethnic, national and linguistic backgrounds. They provide more direct access to medical and educational services as well as cultural activities than do isolated towns.

Distance is the most decisive factor when it comes to urban accessibility. Due to sparse settlement patterns and the relatively new urbanistion process, West African cities are often separated by significant distances which impose considerable constraints on transporters and passengers. Nearly 1 400 kilometres lie between Niamey and Diffa in Niger, for example, which represents a two-day trip given the driving conditions. Travelling long distances limits interactions between urban centres, increases transport

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costs and reinforces the marginalisation of regions located furthest from the capital cities.

Cities are very unequally equipped with transport infrastructure that would increase accessibility. Those that are linked by paved roads to the rest of the national network have a comparative advantage over those that depend on tracks that are more subject to climate events. From that perspective, opening a new transport route could radically change the development outlook for isolated urban centres. For example, the construction of a paved road between Sévaré and Bandiagara in the mid-2000s accelerated the development of tourism in the Dogon country prior to the outbreak of civil war in Mali. In Mauritania, the completion of a route linking Nouakchott to Nouadhibou in 2004 also encouraged herders and fishermen to relocate near the paved road and improved accessibility to socio-educational services (Steck, 2012).

Accessibility depends on the spatial distribution of the cities within a region. Cities located a short distance from one another benefit from spillover effects that are difficult to reproduce in regions with a low level of urbanisation. When multiple cities form a dense network, traders can reach a larger number of consumers and farmers have a number of different markets at which they can sell their products. The infrastructure built by public authorities in these urban regions is also more profitable than elsewhere due to the large number of people that use it. These agglomeration effects are particularly evident in urban conurbations in western Nigeria and in the Niger Delta near Onitsha, as well as in the metropolitan regions of Kano and Dakar.

The combined effects of distance, infrastructure and the urban network are more pronounced in border cities than in other West African cities for three main reasons. First, border cities are often located far from other cities in the country, but near foreign urban centres. This situation creates a double handicap since border crossings cause delays which increase travel time. Second, road networks in the region follow a model that promotes national cohesion rather than regional integration. As a result, there are more direct relationships between border cities and capital cities than cross-border relationships, of which there are very few within the region. For example, only five main arteries cross the 1500-kilometres-long Niger-Nigeria border. Lastly, a number of cities form border agglomerations (see West African Papers, no. 21) with high levels of social commercial exchanges, even though public policy frameworks are weak.

Measuring the accessibility of border cities

The accessibility model developed in this report maps the population base that can theoretically be reached in under four hours by road from any West African border city. Initially developed to calculate the potential population in some regions of Europe (Van Eupen et al., 2012; Gløersen, 2012; Jochem,

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2016), the model was subsequently applied to West African border markets (OECD/SWAC, 2017) before being applied to all 245 West African cities with more than 10000 inhabitants located less than 20 kilometres from a land border in 2015.

The accessibility of cities is measured based on travel time, which takes better account of the region's travel conditions than simply measuring the distance in kilometres as the crow flies. To calculate the number of people that can potentially be reached from a border city, the model uses a grid referred to as the "friction-surface" which can be used to model a person's movement in any direction. After dividing West Africa into cells of the same size, the time needed to travel across each cell is estimated based on a range of indicators including the road network, land cover, topography and waterways (Figure 1.1). Vegetation density is used to simulate the slowest off-road speeds. Water courses and steep slopes are considered potential obstacles that slow travel speed.

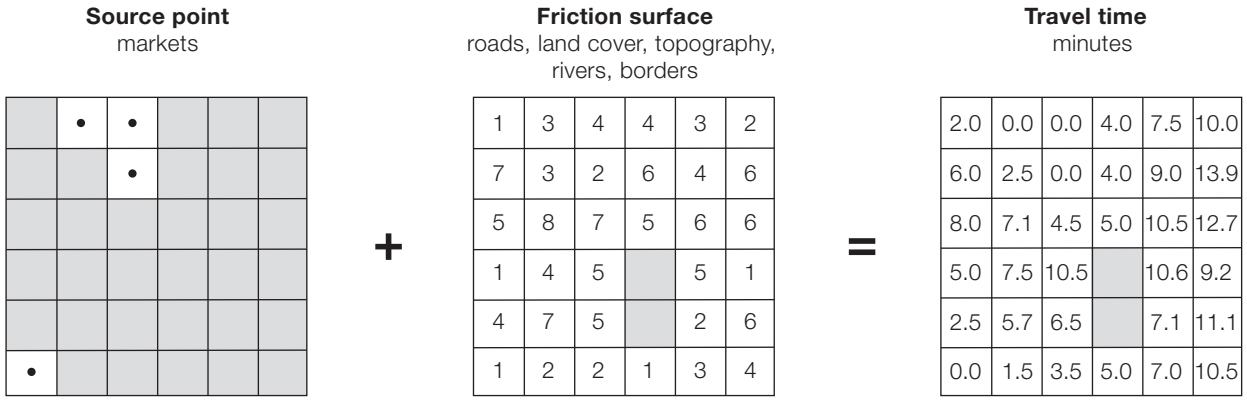
Five travel times ranging from 30 minutes to 4 hours were considered (Map 1.1). These values are markedly different from the 45-minute daily travel time threshold used in Europe, where the average speed is significantly faster and the use of private vehicles is much more common than in West Africa. Wait times at the borders and checks conducted along transport routes also tend to reduce travel speeds. In general, travel times less than 30 minutes correspond to intra-urban movements in large cities or short and fast trips in smaller centres. Under optimal conditions, national borders can generally be crossed within one hour when starting from an urban centre located on a border. Crossing a border to get to another border city generally takes about two hours. Reaching a regional centre located within a given country generally requires three hours of travel. The three-hour threshold was also used to identify the geographic limits of cross-border regions in which the potential number of interactions is highest. Four hours is considered the threshold at which day-to-day travel in border areas is no longer significant.

Generally speaking, the variables integrated into the model are similar to those used in models developed to calculate the accessibility of the world's largest cities (Weiss et al., 2018). However, the model includes three geographic features that are particularly important in West Africa and are likely to cause friction with regard to the flow of goods and people: the existence of national borders, the existence of roadside checkpoints on the main arteries and the condition of the road network.

- Borders. National borders are known for slowing down vehicles and their passengers. Despite regional protocols promoting free circulation within the region, border crossings are generally delayed by formal or informal administrative procedures imposed by government ministries. The model takes such delays into account and calculates how many people could be

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Figure 1.1
Calculation of travel time from each city based on a friction surface grid



Source: adapted from ESRI 2012, OECD/SWAC 2017

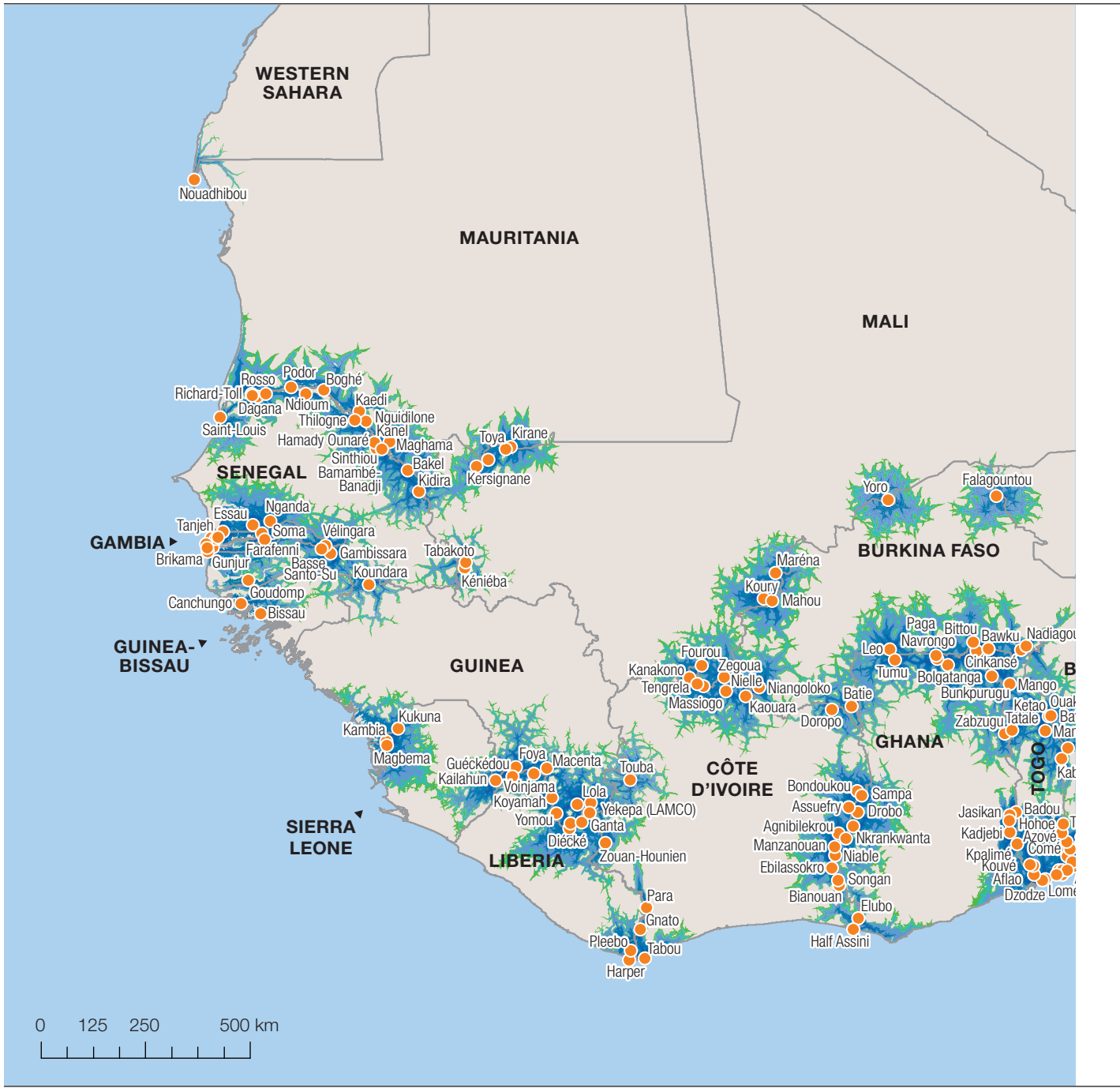
reached from each city with and without a one-hour delay, the absolute minimum for a border crossing in West Africa. This average value takes into account the fact that wait times are often longer for goods than for individuals. Wait times ranging from several hours to several days are common throughout the region (Ben Barka, 2012: 5). For example, at the Hillacondji border post the average wait time to cross from Benin into Togo by truck was five hours in 2017 (AfDB-UEMOA, 2017). The difference between the values calculated with and without delays indicates the approximate percentage of the population that could be reached if the borders were truly open to regional trade and estimates the extent of the obstacle imposed by borders.

- Roadside checkpoints. Numerous roadside checks are conducted along major transport routes outside border regions by local police, customs agents, national police, transport unions, water and forestry officials as well as plant and animal regulatory bodies. The 1371-kilometre route that supplies Niamey with corn from Bouaké in Côte d'Ivoire had no less than 47 checkpoints in August 2017 (CILSS, 2017). In West Africa, these checks are commonly referred to as instances of "administrative hassles". They can result in illegal payments totalling more than 500 dollars per 100 kilometres, as was the case in the Abidjan-Lagos corridor in July 2017. Despite some isolated improvements, these travel fees increase the cost of transactions and the final price paid by West African consumers. They contribute to making West Africa one of the most expensive regions in the world when it comes to transport (Teravaninthorn and Raballand, 2009). The model uses data collected monthly as part of the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) program to estimate the scope of the obstacle imposed by the forces of law and order.

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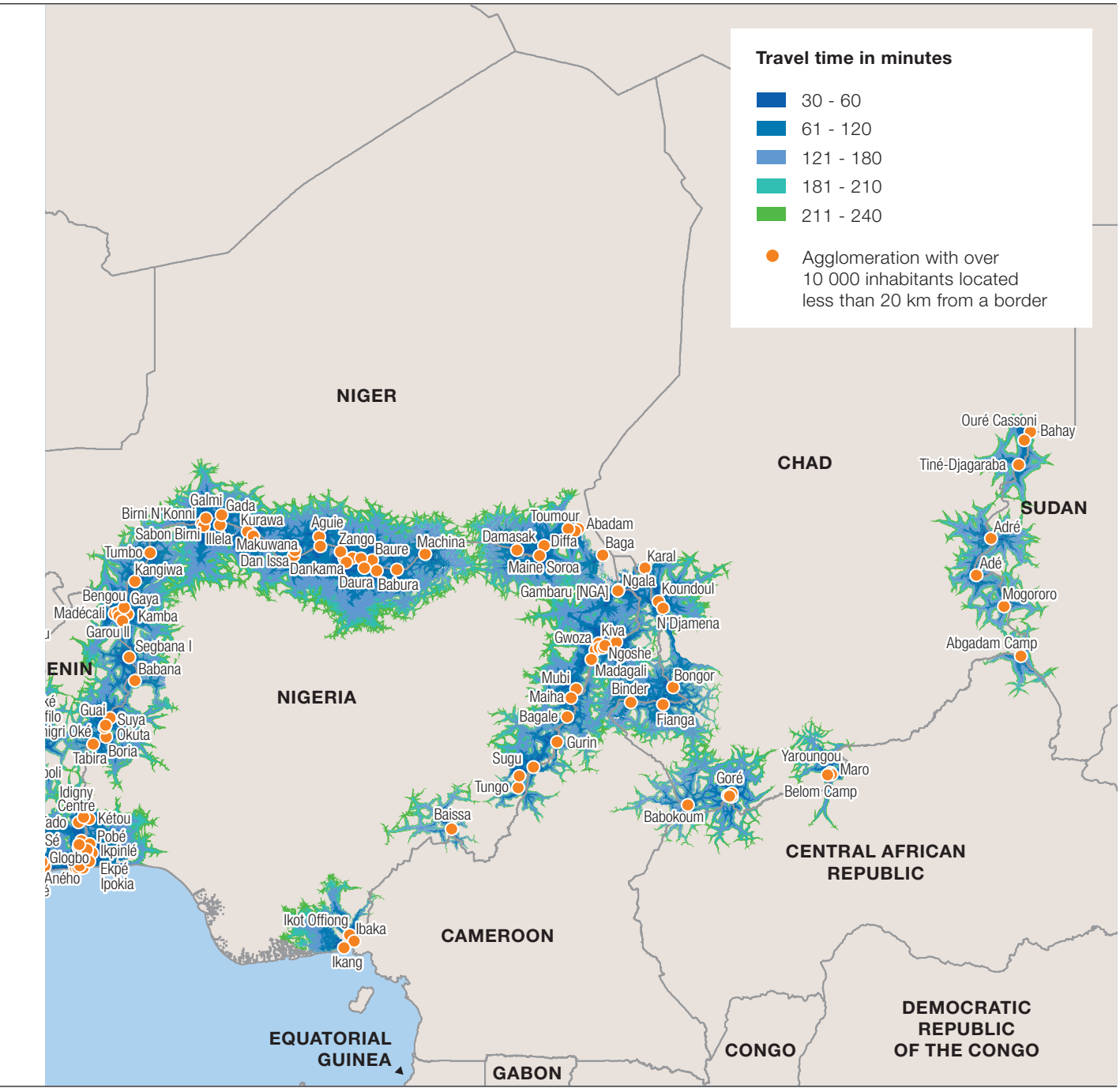
Map 1.1

Accessibility of urban agglomerations located less than 20 kilometres from a border



Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

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Travel time in minutes
30 - 60
61 - 120
121 - 180
181 - 210
211 - 240
Agglomeration with over 10 000 inhabitants located less than 20 km from a border
NIGER
CHAD
SUDAN
NIGERIA
CAMEROON
CENTRAL AFRICAN REPUBLIC
EQUATORIAL GUINEA
GABON
CONGO
DEMOCRATIC REPUBLIC OF THE CONGO
Ouré Cassoni
Bahay
Tiné-Djagaraba
Adré
Adé
Mogororo
Abgadam Camp
Galmi
Gada
Birni N'Konni
Kurawa
Aguie
Sabon Birni
Illela
Makuwana
Zango
Machina
Tumbo
Dan Issa
Baure
Kangiwa
Dankama
Daura
Babura
Toumour
Abadam
Damasak
Diffa
Baga
Karal
Maine Soroa
Ngala
Gambaru [NGA]
Koundoul
N'Djamena
Bengou
Gaya
Madécali
Kamba
Garou II
Segbana I
Babana
Kiva
Gwoza
Ngoshe
Madagali
Mubi
Bongor
Maiha
Binder
Fianga
Bagale
Gurin
Guai
Suya
Okuta
Oké
Boria
Tabira
Sugu
Tungo
Baissa
Yaroungou
Maro
Belom Camp
Goré
Babokoum
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Kétou
Pobé
Ikpinlé
Glogbo
Ekpé
Ipokia
Aného
Ikot Offiong
Ibaka
Ikang

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- Condition of the road network. To calibrate the model, an average speed of 30 km/h was used as the reference speed for travel by truck and bush taxi, two of the region's most popular methods of transport. However, the condition of the road network strongly affects travel speeds. While an average speed of 80 km/h can be reached on some paved stretches in good condition, roads in poor condition and second-rate roads require speeds well below 30 km/h. To account for this factor, the model integrates the current condition of the road network in the West African region of Dendi, where contrasts between the Nigerian, Nigerien, and Beninese road networks are particularly strong. Based on field surveys, an average speed was calculated for each stretch of road, based on road category and state of repair.

Wait times at borders make cities less accessible

A map of the number of people that can be reached from a border city was used to identify 15 primary regions with contiguous population bases (Map 1.2). Seven other secondary regions located on the borders of Mauritania, Nigeria and Chad are also visible, while the demographic potential of Sudan, Cameroon and the Central African Republic could not be determined due to a lack of data.

Central West Africa contains three cross-border regions with contiguous urban population bases (Table 1.1). The most populous region extends from northwest Ghana to central Togo (757 000 urban inhabitants), followed by the Sikasso-Korhogo-Bobo-Dioulasso region (194 000) located between Mali, Côte d'Ivoire and Burkina Faso. In the eastern part of the Gulf of Guinea, the cross-border region extending from Ghana to Nigeria has the largest number of urban residents in West Africa (2.45 million), followed by the Côte d'Ivoire-Ghana border region (a mere 350 000). In the western part of the Gulf of Guinea, the largest urban border population is located in Fouta Jalon (581 000), between Guinea, Sierra Leone and Liberia, while the second largest is located north of Freetown between Liberia and Côte d'Ivoire. In the Sahel, northern Nigeria has two major cross-border regions: the region extending from central Benin to eastern Hausaland (940 000 urban inhabitants) and the Lake Chad region (2 million), which branch out along the entire Cameroon-Chad border. The regions of Yoro in Burkina Faso and Liptako Gourma are clearly more marginal from a demographic point of view. In the west, the main regions follow the Senegal and Gambia rivers.

The largest population bases are located on the border separating southern Nigeria from Benin (Map 1.3). Cities in this region are highly accessible due to high population densities, extensive roadway infrastructure and an abundance of cities of all sizes located near each other. All of the cities in this region have a cross-border population base of over 20 million inhabitants due to their proximity to Lagos, while that number reaches up to 27 million in

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Table 1.1
Urban population and number of agglomerations per border region

Macro-region	Border region	Number of cities	Urban population within 20 km of a border, 2015
Central Africa		8	175 490
Centre	North Ghana-Togo	24	757 266
	SKBo	8	193 554
	Koury	3	43 225
Darfour		7	140 280
Eastern Gulf of Guinea	Ghana-Nigeria	43	2 452 539
	Côte d'Ivoire-Ghana	14	348 574
	Delta	4	148 434
Western Gulf of Guinea	Fouta Jalon	15	581 354
	Liberia-Côte d'Ivoire	5	109 278
	Sierra Leone-Guinea	3	62 356
Nouadhibou		1	129 573
Sahel	Lake Chad	29	1 977 286
	Northern Nigeria	37	943 744
	Yoro	1	12 259
	Liptako	1	11 214
Senegambia	Gambia River	19	1 166 358
	Senegal River	21	593 747
	Kéniéba-Tabakoto	2	26 534
Total		**245**	**9 873 065**

Note: The urban population is smaller than the figures for the region (see West African Papers, no. 21) due to the lack of data on Cameroon. Source: OECD/SWAC 2018.

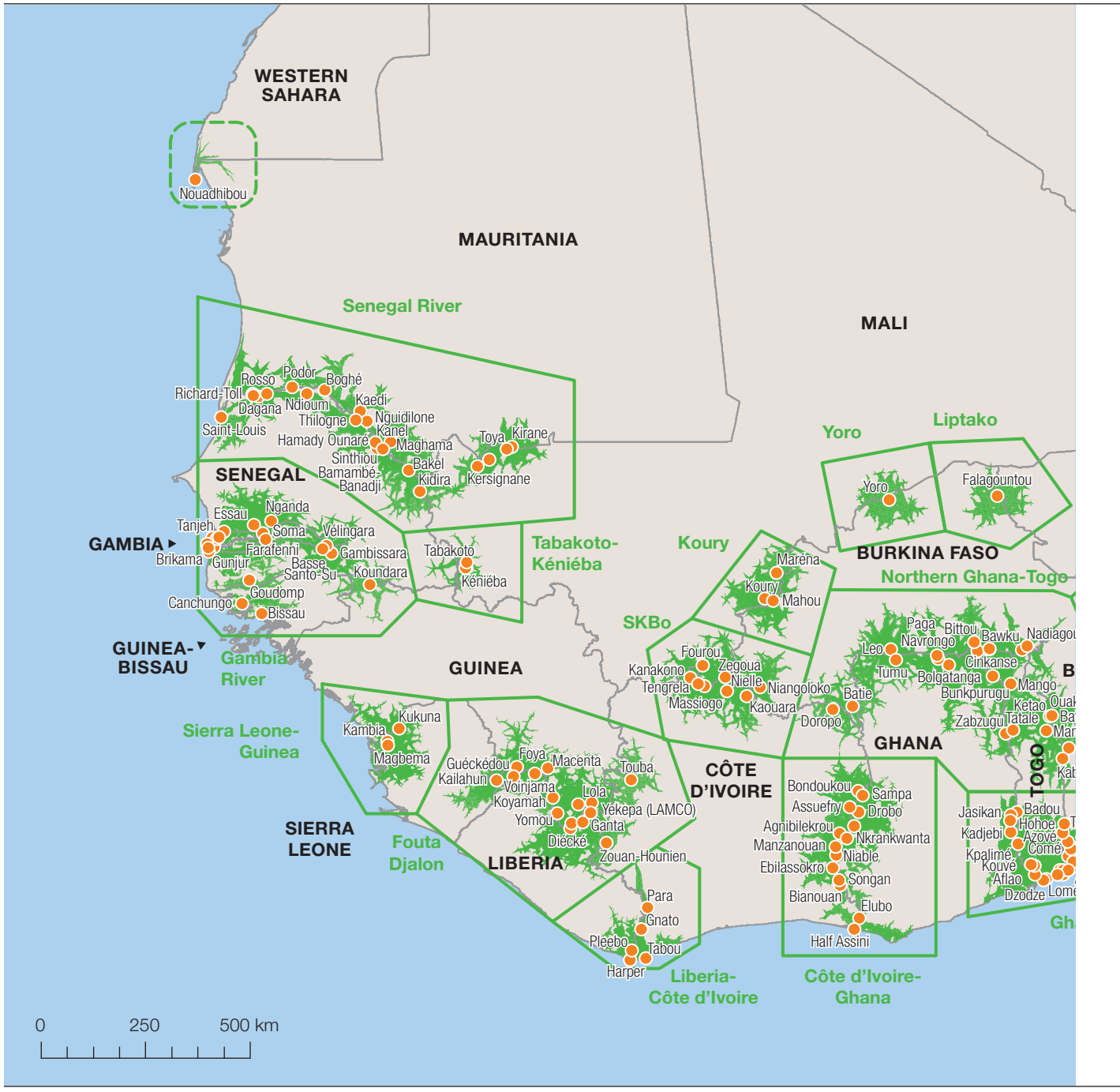
Ifangni, Idi Iroko and Oke Odan [1]. Hausaland has several population bases of more than 10 million inhabitants, in particular in the central urban agglomeration of Kano (Daura and Magaria). Beyond Nigeria's border regions, the population bases rarely reach more than 5 million people.

1 As a single person can belong to multiple population bases at the same time, it makes little sense to combine border city populations for each cross-border region.

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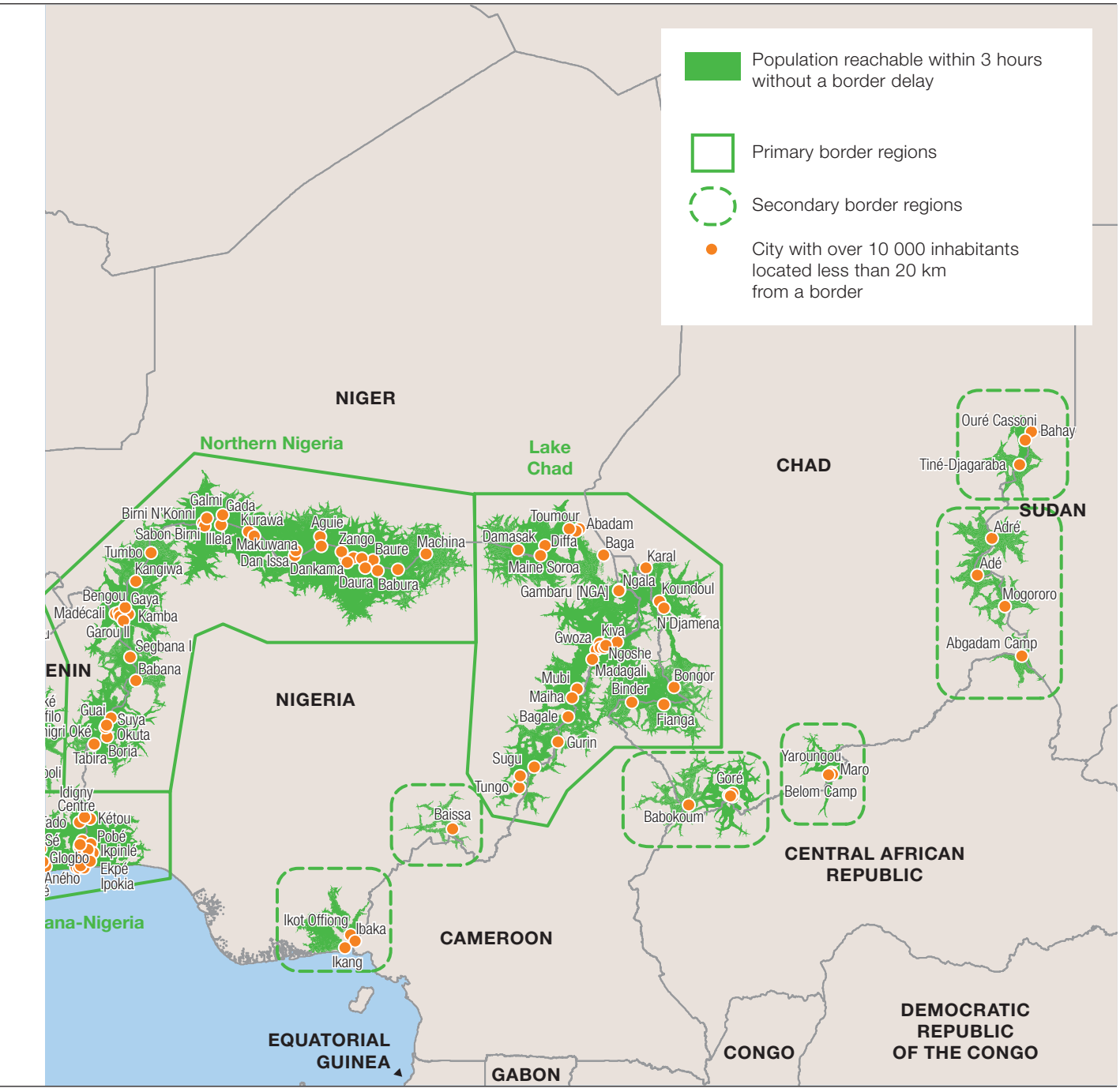
Map 1.2

Primary and secondary border regions



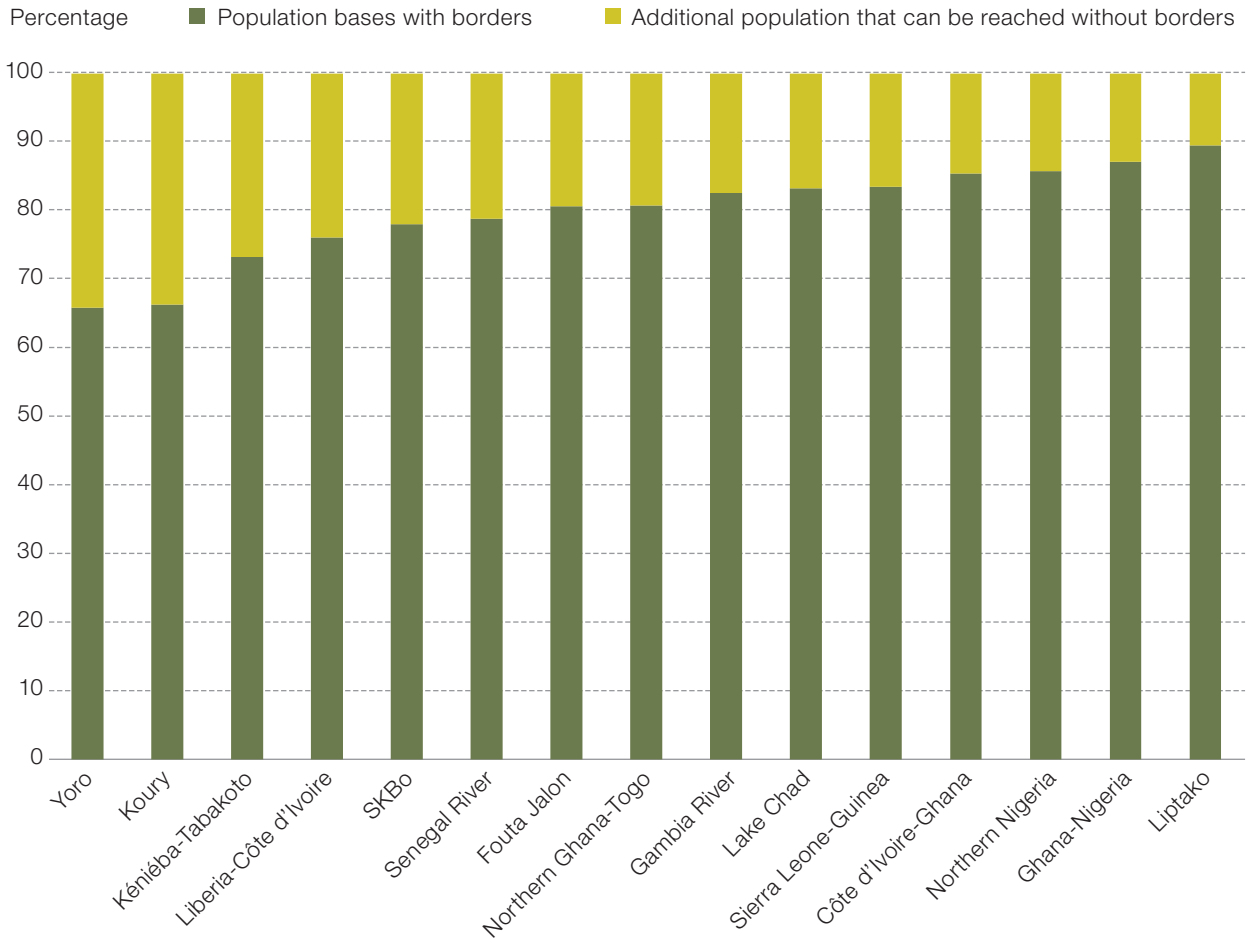
Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

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Population reachable within 3 hours without a border delay
Primary border regions
Secondary border regions
City with over 10 000 inhabitants located less than 20 km from a border
NIGER
Northern Nigeria
Lake Chad
CHAD
SUDAN
NIGERIA
ENIN
CAMEROON
CENTRAL AFRICAN REPUBLIC
EQUATORIAL GUINEA
GABON
CONGO
DEMOCRATIC REPUBLIC OF THE CONGO
Galmi
Gada
Birni N'Konni
Kurawa
Aguie
Sabon Birni
Illela
Zango
Makuwana
Machina
Tumbo
Dan Issa
Baure
Kangiwa
Dankama
Daura
Babura
Bengou
Gaya
Madécali
Kamba
Garou II
Segbana I
Babana
Guai
Suya
Oké
Okuta
Tabira
Boria
Idigny
Centre
Kétou
Pobé
Ikpinlé
Glogbo
Ekpé
Aného
Ipokia
ana-Nigeria
Toumour
Abadam
Damasak
Diffa
Baga
Karal
Maine Soroa
Ngala
Gambaru [NGA]
Koundoul
N'Djamena
Gwoza
Kiva
Ngoshe
Madagali
Mubi
Bongor
Maiha
Binder
Bagale
Fianga
Gurin
Sugu
Tungo
Baissa
Goré
Babokoum
Yaroungou
Maro
Belom Camp
Ouré Cassoni
Bahay
Tiné-Djagaraba
Adré
Adé
Mogororo
Abgadam Camp
Ikot Offiong
Ibaka
Ikang

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Figure 1.2
Population bases with or without border delays



Note: The adjacent regions of the Central African Republic, Sudan and western Cameroon were not included.
Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

The accessibility of cities significantly decreases due to border crossings. On average, a one-hour wait at a border corresponds to a decrease of 14% of the population that could potentially be reached from border cities in the region. The effects of borders vary considerably based on the region under analysis. The population base is reduced by 20% in the Senegal River Valley, Fouta Djallon and northern Ghana, and by 25% in the SKBo region and between Liberia and Côte d'Ivoire. The population base is reduced by one-fifth in relation to its theoretical extension from the mouth of the Senegal River to the Guinean border, in Fouta Jalon, in northern Ghana, and by nearly one-quarter in the Sikasso-Korhogo-Bobo-Dioulasso (SKBo) area between Liberia and Côte d'Ivoire (Figure 1.2).

The population bases in Hausaland are moderately affected by border wait times due to significant disparities in population densities and the large number of cities between Nigeria and its neighbours. The potential number

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Table 1.2
Cities whose population bases are most affected by border delays

Border cities	Country	Reduction of the population base due to waiting at the border, in %
Idigny	Benin	71.3
Rosso	Senegal	58.8
Aného	Togo	55.6
Magaria	Niger	52.9
Lomé	Togo	51.3
Anfoin	Togo	50.7
Kukuna	Sierra Leone	49.8
Comé	Benin	45.6
Vogan	Togo	44.9
Doropo	Côte d'Ivoire	44.7
Togoville	Togo	44.6
Aklakou	Togo	44.5

Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

of people that can be reached from the Nigerian side is always higher than the number that can be reached by crossing a border given the existing transport network. On the Gulf of Guinea, border city population bases depend on their level of access to the Cotonou-Lagos conurbation. As a result, all of Togo's coastal cities (Aného, Lomé, Anfoin, Vogan, Togoville and Aklakou) lose 45% of their population bases when a delay exceeding one hour is imposed at the borders (Table 1.2).

Administrative hassles hinder regional integration

These corrupt practices require informal payments be made to government officials, particularly on major transport routes. In Francophone countries, most of these practices are carried out by customs agents, the national police, local police, municipal officials and transport unions, while they are most often carried out by police officers in Ghana and Nigeria. Some government officials elicit a fixed fee at each roadside checkpoint, mainly from small traders and migrants, while others extract informal payments from individuals whose vehicles or loads fall short of the regulations. Lastly, some officials establish long-term, clientelistic relationships with large traders and

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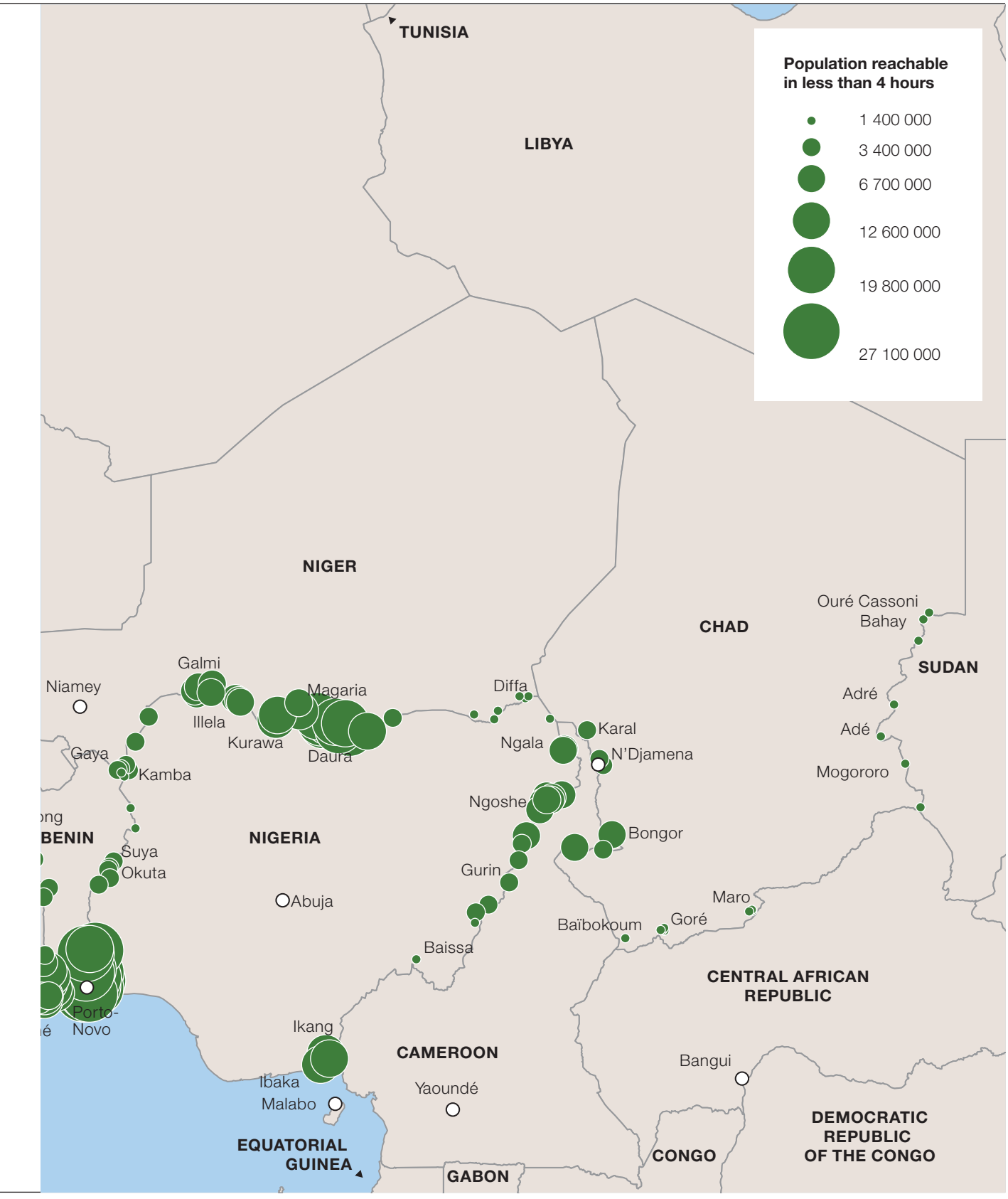
Map 1.3

Population bases of border agglomerations with no border delays



Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

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Population reachable in less than 4 hours
1 400 000
3 400 000
6 700 000
12 600 000
19 800 000
27 100 000
TUNISIA
LIBYA
NIGER
CHAD
SUDAN
NIGERIA
BENIN
CAMEROON
EQUATORIAL GUINEA
GABON
CENTRAL AFRICAN REPUBLIC
CONGO
DEMOCRATIC REPUBLIC OF THE CONGO
Niamey
Galmi
Illela
Magaria
Kurawa
Daura
Gaya
Kamba
Diffa
Ngala
Karal
N'Djamena
Ouré Cassoni
Bahay
Adré
Adé
Mogororo
Ngoshe
Bongor
Gurin
Suya
Okuta
Abuja
Baissa
Maro
Goré
Baïbokoum
Porto-Novo
Ikang
Ibaka
Malabo
Yaoundé
Bangui

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regional transporters to facilitate the passage of prohibited imported goods, such as used textiles and gas. A delicate balance is often struck between the two parties so that the levies imposed on private actors do not lead to a decline in trade (Cantens and Raballand, 2017).

These corrupt practices create substantial delays and additional costs for traders, transporters, consumers and West African countries (UNECA-AU-AfDB, 2010; Ben Barka, 2012). They significantly increase the already high transport prices in the region, which affects the final price paid at market. For example, in August 2017 illegal payments imposed on cola transporters reached more than 2600 USD on the 1043 kilometre-long Abidjan-Lagos route (CILSS, 2017). Transporters are often forced to stop 3 to 16 times per 100 kilometres depending on the West African transport route being travelled. The delays caused by these roadside checks add to the slow border crossing procedures and contribute to the slow average speed of local vehicles. For example, along the route from Bama in Burkina Faso to Koury in Mali, trucks transporting parboiled rice lose 46 minutes at roadside checkpoints for every one hundred kilometres travelled (CILSS, 2017).

These obstacles are among the leading complaints expressed by local populations wanting to travel within the region. In a recent survey on women's trade networks in the region separating Benin from Niger and Nigeria, for example, more than one-third of farmers and traders identified illegal payments as the primary impediment to their economic activities (OECD/SWAC, 2019b). Illegal payments imposed on transport routes also result in lost revenues for governments since many fines are, in reality, paid informally. Lastly, these corrupt practices encourage transporters to overload their trucks instead of complying with the regulations, which further deteriorates the road network, the cost of which is generally borne by national governments rather than by West African users.

The extent of these corrupt practices led CILSS to establish a regional information observatory specifically dedicated to monitoring roadside checkpoints within the framework of the Markets Access Regional Support Programme funded by the United States and Canada. The monthly reports produced by the observatory show, however, that illegal payments are still extremely common in the region and that the number of checkpoints is still high. Despite some temporal fluctuations, no major change in practices has been observed in the region's primary transport corridors. Resistance to eliminating this "harassment" is due in part to the fact that government officials often see illegal payments as an indispensable salary supplement. From that perspective, being assigned to a border post is considered a promotion that is synonymous with rapid enrichment. On the other hand, a portion of the money collected by local officials flows into other levels of the state hierarchy, as well as municipal offices and transportation unions.

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The presence of numerous checkpoints on West African roads slows the average speed of travel in the region and, as a result, considerably reduces the potential population base of border cities. To measure the effect of these posts on road accessibility, the data collected by CILSS on transport corridors was included in the previously described model (Table 1.3). The 481 checkpoints identified in fall 2017 are staffed by police officers, customs agents, national police, transport unions, plant and animal regulatory bodies, and municipal offices. Present in 320 locations, they cover the Sahelian route linking Dakar to Niamey via Ouagadougou, the major trade routes that connect the capitals in the Sahel to ports on the Gulf of Guinea including Conakry, Abidjan and Accra, as well as the Gulf of Guinea coast from Abidjan to Lagos (Map 1.4). Secondary routes linking Dakar to Rosso in Mauritania, Bamako to Ouangolodougou in Côte d'Ivoire and Parakou in Benin to Pouytenga in Burkina Faso are also covered. There are gaps in the geographic cover in the region west of the Gulf of Guinea (Sierra Leone and Liberia) and Nigeria, whose domestic and international trade were not considered, except in reference to the Gulf of Guinea coastal route.

Table 1.3
Locations and checkpoints by country, 2017

Country	Locations	Checkpoints
Benin	27	36
Burkina Faso	38	60
Côte d'Ivoire	42	69
Ghana	66	90
Guinea	26	30
Mali	37	68
Mauritania	1	3
Niger	6	8
Nigeria	12	36
Senegal	58	70
Togo	7	11
Total	**320**	**481**

Source: CILSS 2017

The corridors identified by CILSS are used by the agricultural and livestock sectors. For example, data on the corridor between Conakry in Guinea and Kati in Mali were collected to take cattle flows into account, as well as the data on maize collected between Bouké in Côte d'Ivoire and Niamey in Niger. In reality, roadside checkpoints affect all transporters regardless of the product transported, as these corrupt practices are essentially used to extract income from the passage of trucks. From that perspective, the accessibility model combines all types of checkpoints for all products and all the corridors identified by CILSS. For each border city, it is therefore possible to depict the populations reached with or without roadside checkpoints along a selection of West African corridors (Map 1.5).

The presence of roadside checkpoints reduces the average population base of a border city by 12%. However, this regional average does not consider the very disparate coverage of the roadside checkpoints identified. In regions where the transport corridors studied pass through border cities, road accessibility

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Map 1.4

Checkpoints on the primary West African transportation routes, 2017



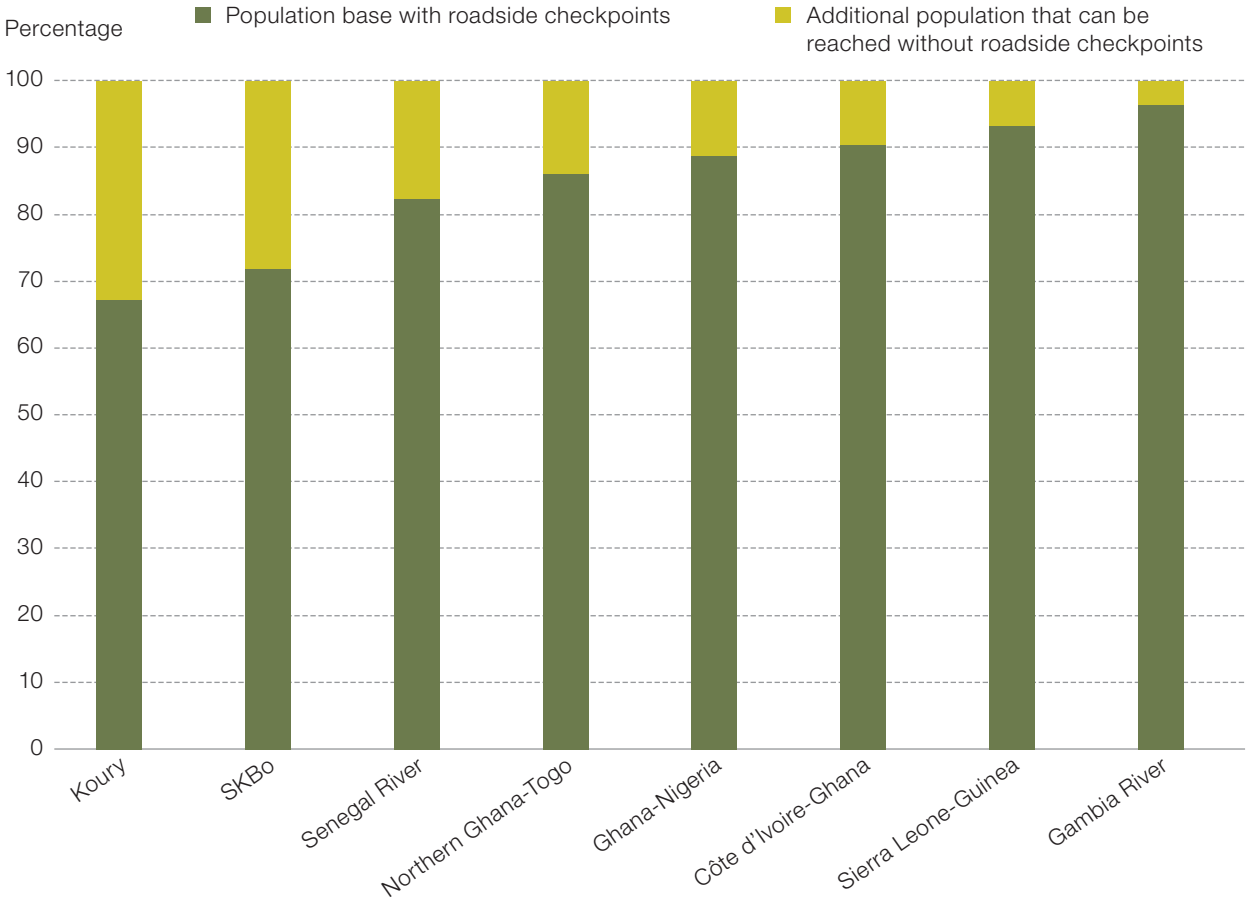
Source: CILSS 2017

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Roadside checkpoints
Primary roads
(West Africa only)
ALGERIA
MALI
NIGER
CHAD
BURKINA FASO
Niamey
Torodi
Ouagadougou
Fô
Koupéla
Fada
N'Gourma
Bobo-
Dioulasso
Po
BENIN
Kaouara
Bolgatanga
Tanguiéta
Djougou
Parakou
Tamalé
NIGERIA
Abuja
N'Djamena
TOGO
GHANA
Techiman
Kumasi
Agboville
Porto-Novo
Cotonou
Lagos
Lomé
Accra
Takoradi
Abidjan
CAF
CAMEROON
Malabo
Yaoundé
EQUATORIAL
GUINEA
GABON
CONGO

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Figure 1.3
Population bases with or without roadside checkpoints



Note: The border regions of the Central African Republic and Sudan, as well as those for which there is no data on transport corridors, were not included. Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

is drastically reduced. This is the case in the SKBo region, where the checkpoints along routes linking Côte d'Ivoire to Mali and Burkina Faso reduce the population base by one-third (Figure 1.3). For some cities located on a transport corridor, the potential number of people who could be reached could increase by 40% were there no roadside checkpoints (Table 1.4). The situation is of particular concern along the Ghana-Togo-Benin coastal belt, where numerous checkpoints reduce the accessibility of multiple border cities (Aflao, Lomé, Comé and Aného) by more than one half. These checkpoints constitute obstacles to an effective implementation of an Abidjan-Lagos transport corridor planned by states on the Gulf of Guinea and African regional organisations (AfDB-UEMOA, 2017).

Road conditions determine border city accessibility

The accessibility of border cities depends to a large degree on the condition of the road network. Travelling on well-maintained roads is easier than on

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Table 1.4
Agglomerations whose population bases are most affected by roadside checkpoints

Border cities	Country	Reduction of the population base due to roadside checkpoints, in %
Rosso	Senegal	62.9
Half Assini	Ghana	62.4
Niangoloko	Burkina Faso	61.9
Aflao	Ghana	60.8
Lomé	Togo	57.3
Comé	Benin	56.5
Aného	Togo	55.4
Paga	Ghana	52.1
Elubo	Ghana	49.3
Dzodze	Ghana	48.7
Sé	Benin	46.7
Mahou	Mali	45.4
Anfoin	Togo	43.6
Navrongo	Ghana	40.7
Togoville	Togo	40.7
Bolgatanga	Ghana	40.6

Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

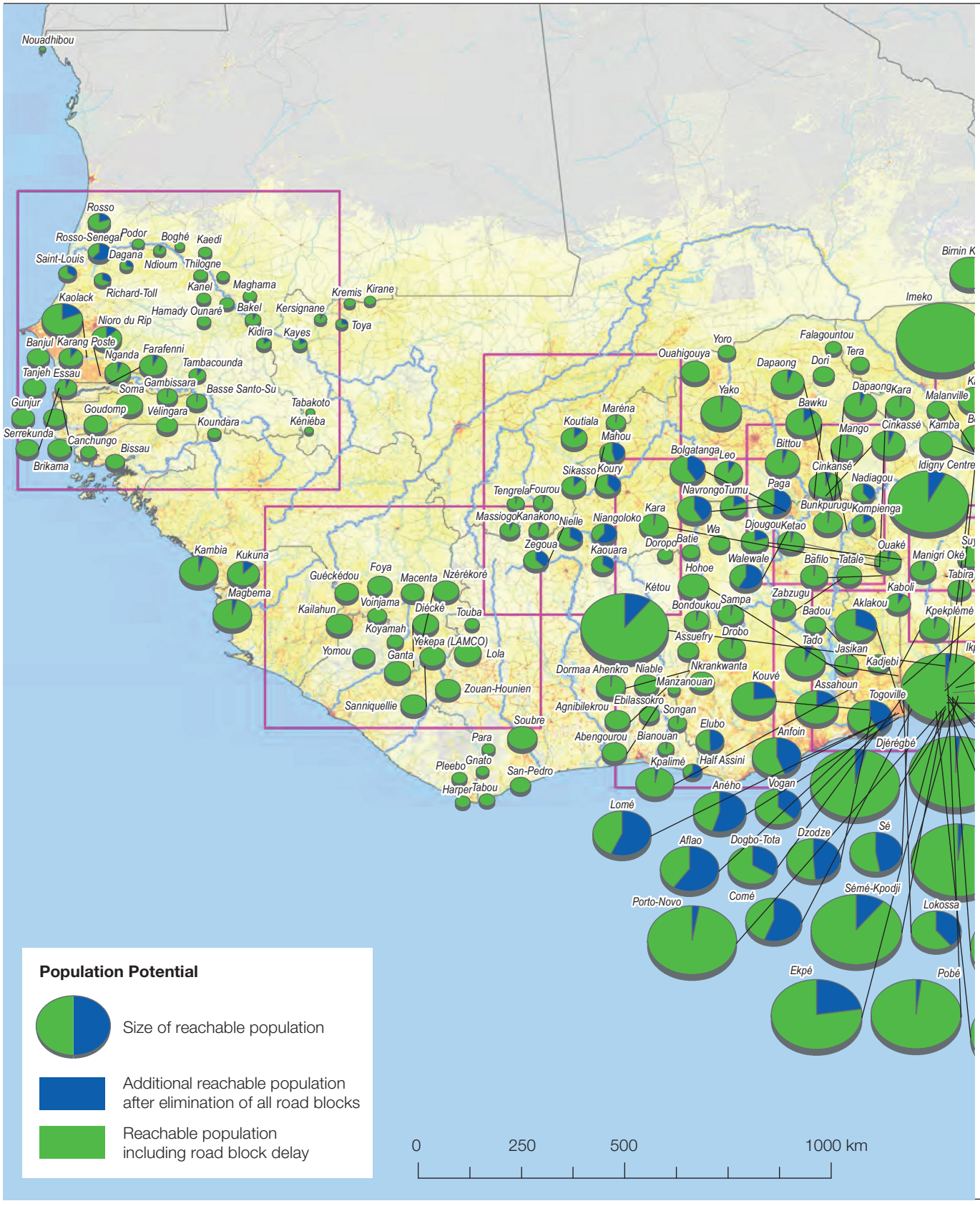
rudimentary tracks; it also helps reduce the cost of maintaining vehicles and the number of accidents. However, transport routes that are sufficiently maintained and allow for faster speeds are a rarity in West Africa. A study on the primary ECOWAS transport corridors conducted by the World Bank shows, for example, that only half of the distance covered by routes between Abidjan-Lagos, Dakar-Bamako, Lomé-Niamey and Cotonou-Niamey are considered to be in good condition (Foster and Briceño Garmendia, 2009).

To take this factor into account, a pilot study led by the SWAC team, in partnership with the University of Niamey, was conducted in the Dendi cross-border region, which includes the population bases of the following cities: Bengou and Gaya in Niger; Garou, Madécali and Malanville in Benin; and Kamba, Kangiwa and Tumbo in Nigeria. The combined populations of these

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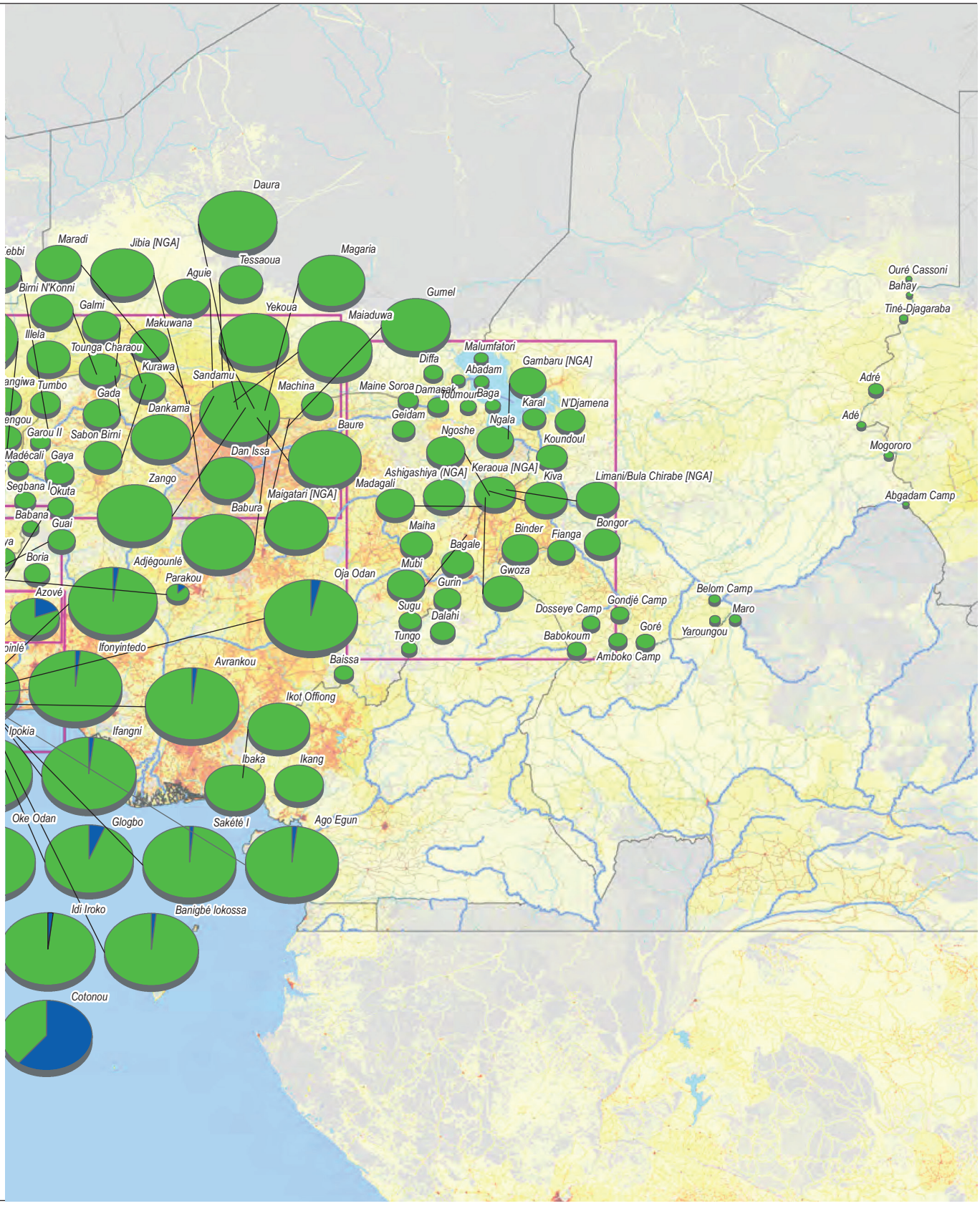
Map 1.5

Accessibility and roadside checkpoints, 2017



Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Wageningen Environmental Research (Alterra).

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Daura
Maradi
Jibia [NGA]
Tessaoua
Magaria
Aguie
Birni N'Konni
Galmi
Yekoua
Gumel
Maiaduwa
Makuwana
Illela
Tounga Charaou
Kurawa
Sandamu
Machina
Tumbo
Gada
Dankama
Garou II
Sabon Birni
Dan Issa
Baure
Madécali
Gaya
Zango
Segbana
Okuta
Maigatari [NGA]
Babura
Babana
Guai
Boria
Adjégounlé
Parakou
Azové
Oja Odan
Ifonyintedo
Avrankou
Baissa
Ikot Offiong
Ipokia
Ifangni
Ibaka
Ikang
Oke Odan
Glogbo
Sakété I
Ago Egun
Idi Iroko
Banigbé Iokossa
Cotonou
Malumfatori
Diffa
Abadam
Gambaru [NGA]
Maine Soroa
Damasak
Toumour
Baga
Karal
N'Djamena
Geidam
Ngala
Ngoshe
Koundoul
Ashigashiya [NGA]
Keraoua [NGA]
Kiva
Limani/Bula Chirabe [NGA]
Madagali
Bongor
Maiha
Binder
Fianga
Bagale
Mubi
Gwoza
Gurin
Sugu
Dalahi
Tungo
Dosseye Camp
Gondjé Camp
Goré
Babokoum
Amboko Camp
Belom Camp
Maro
Yaroungou
Ouré Cassoni
Bahay
Tiné-Djagaraba
Adré
Adé
Mogororo
Abgadam Camp

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Table 1.5
Average speed according to road type and condition, in km/h, 2018

		Condition			
		Very good	**Good**	**Degraded**	**Poor**
Road type	**Paved roads**	100	60	40	25
	Gravel roads	60	40	25	15
	Dirt roads	40	25	25	10

Source: Lawali Dambo, University of Niamey

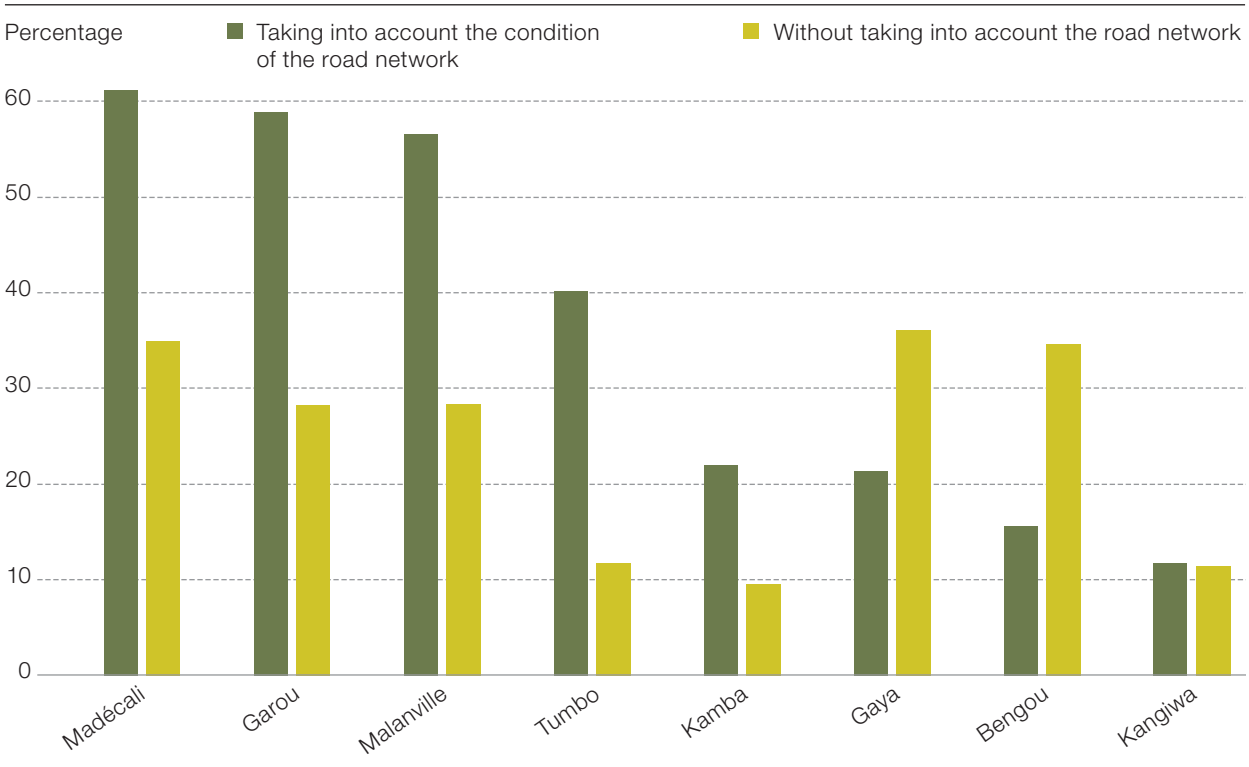
cities located less than 20 kilometres from a border was 241 500 inhabitants in 2015, nearly 61 000 of which reside in Malanville and more than 50 000 of whom reside in Gaya and Kamba (OECD/SWAC, 2018). These three main urban centres, separated by a few dozen kilometres, maintain intense economic relationships due to the opportunities offered by cross-border trade (Walther, 2012 and 2015). Since the 1980s, Gaya has specialised in the transport of used textiles from western and Chinese markets imported through the Port of Cotonou where they are exempt from duties, then brought into Nigeria illegally. Malanville serves as an agricultural centre for grains, root vegetables and onions grown in the region. As for Kamba, it serves as a relay point for the flow of agricultural products into markets in Nigeria's interior, including rice produced in the Niger River Valley (OECD/SWAC, 2019b).

Based on field surveys, each stretch of road in the Dendi region is categorised according to road type and state of repair in spring 2018 (Table 1.5). Paved roads include highways and national roads. There are a good many paved roads in Nigeria, which has the most extensive road network in the region by far. Gravel roads *(latérite)* connect large centres to rural outskirts, specifically in Niger and Benin. Dirt roads are very common everywhere, both in rural and urban areas. Roads in very good condition are new or have been recently upgraded. Those in good condition have occasional impediments. Roads in fair condition require slow speeds on many stretches. Those in poor condition call for very slow speeds and are impassable for light-duty vehicles (Map 1.6).

Taking the condition of the road network into account makes it possible to depict the considerable effect of borders on the accessibility of cities (Map 1.7). If there were no delays at the Dendi borders, the combined population base of the eight border cities would increase by one-third (34%). The largest accessibility gap was seen in the Beninese cities of Malanville, Garou and Madécali (+57-61%) due to their geographic locations and the regional architecture of the road network. The possibility of cross-border travel is greatly improved from cities located on the right bank of the Niger River, due to the recent opening of a new paved road linking northern Benin to Illo in Nigeria. From

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Figure 1.4
Increase in the population base of cities in the Dendi region



Sources: Lawali Dambo, University of Niamey; Wageningen Environmental Research (Alterra); SWAC/OECD surveys

that perspective, the Dendi is a key regional hub as all major national routes converge there, including the national Nigerien highway (RN7) leading to Niamey and eastern Niger, the main road from Kebbi leading to Sokoto to the east, and the national interstate (RNIE2) through Benin to the Gulf of Guinea.

Generally speaking, including the condition of the road network in the model considerably increases the population base of Beninese cities (Madécali, Garou and Malanville) and reduces that of Nigerien cities (Gaya and Bengou) (Figure 1.4). These results indicate that the actual average speed in Benin is greater than the speed of 30 km/h used to calibrate the model in the rest of West Africa and lower than 30 km/h in Niger.

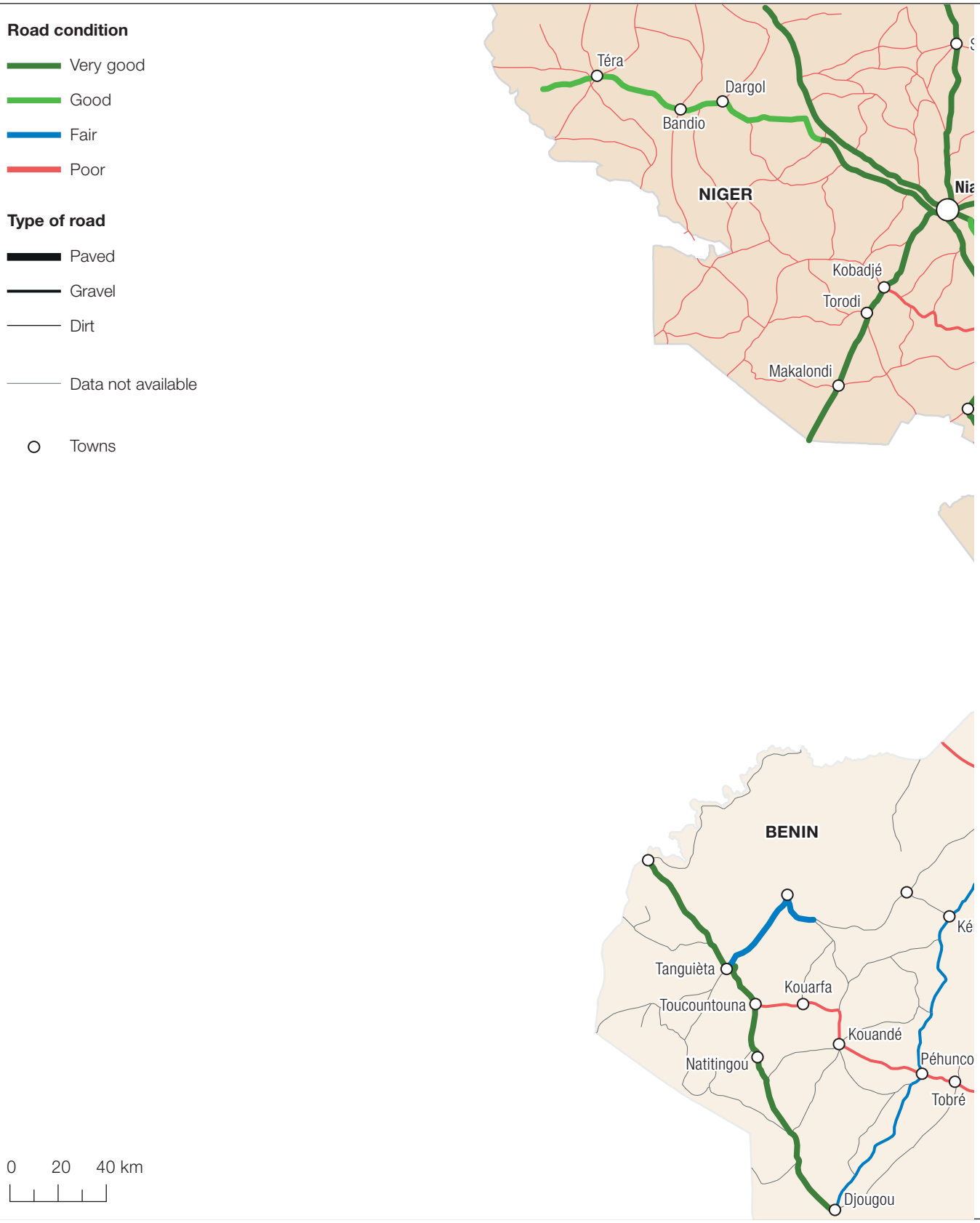
These national differences are visible on the maps showing the accessibility of the main cities in the Dendi region (Maps 1.8, 1.9 and 1.10).

- If there were no border delays in Niger, it would take less than three hours to reach the Sokoto urban region to the northeast, and the Nigerian cities in the Niger River Valley by taking the new paved road linking Malanville to Illo. Gaya's accessibility is also reduced due to the deterioration of National Highway 7 linking Gaya to Dosso; a contract for road works was awarded to a contractor who is now unable to complete the work. The situation is particu-

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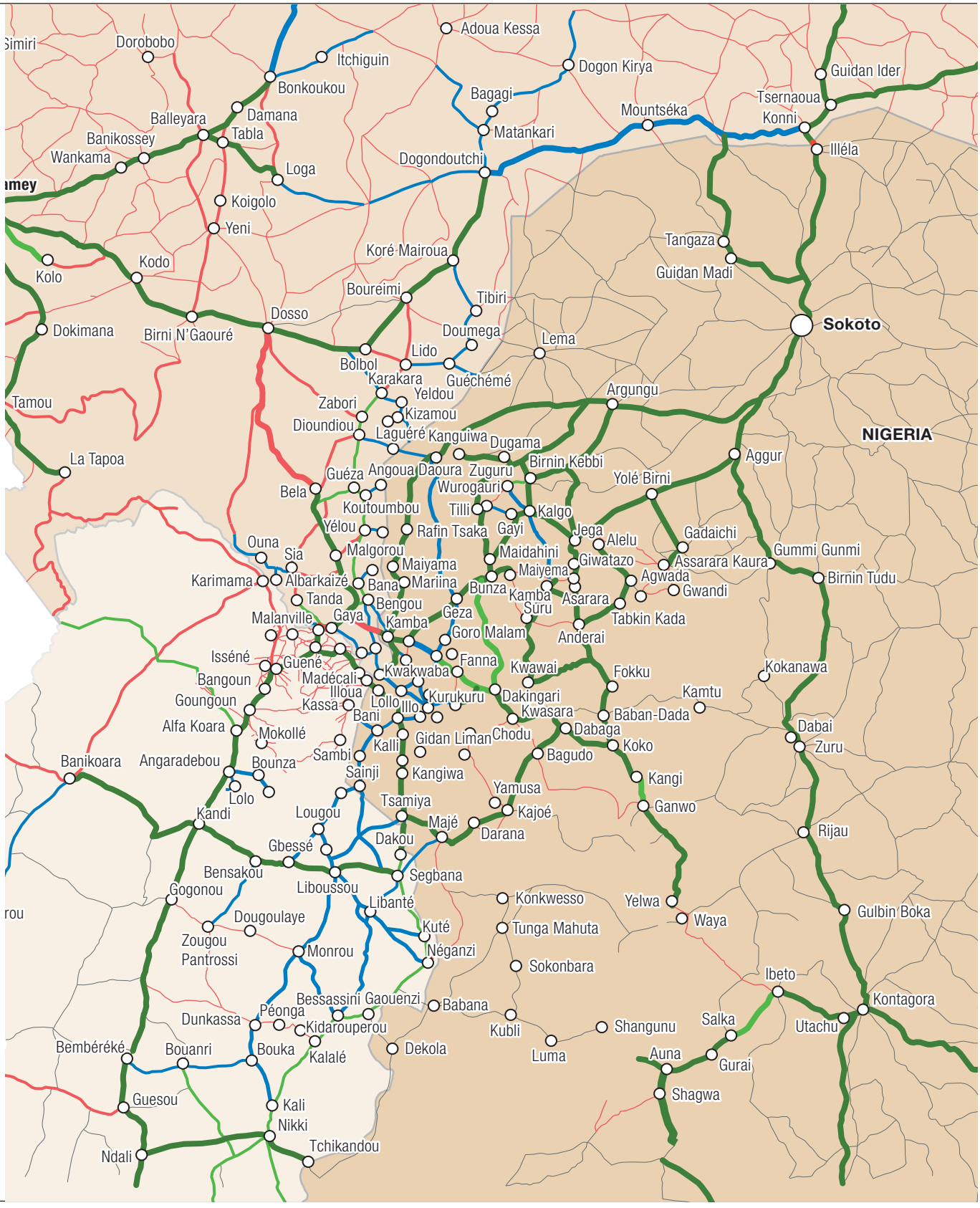
Map 1.6

Road condition and type in the Dendi region, 2018



Source: Lawali Dambo, University of Niamey

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Adoua Kessa
Dorobobo
Itchiguin
Dogon Kirya
Guidan Ider
Bonkoukou
Bagagi
Tsernaoua
Mountséka
Balleyara
Damana
Konni
Tabla
Matankari
Banikossey
Illéla
Wankama
Dogondoutchi
Loga
Koigolo
Yeni
Tangaza
Koré Mairoua
Kodo
Kolo
Guidan Madi
Boureimi
Tibiri
Dosso
Sokoto
Dokimana
Birni N'Gaouré
Doumega
Lema
Lido
Bolbol
Guéchémé
Karakara
Yeldou
Argungu
Tamou
Zabori
Kizamou
Dioundiou
Laguéré
Kanguiwa
NIGERIA
Dugama
La Tapoa
Birnin Kebbi
Aggur
Guéza
Angoua
Daoura
Zuguru
Yolé Birni
Bela
Wurogauri
Koutoumbou
Tilli
Kalgo
Yélou
Rafin Tsaka
Gayi
Jega
Alelu
Gadaichi
Ouna
Sia
Malgorou
Maidahini
Giwatazo
Assarara Kaura
Gummi Gunmi
Maiyama
Maiyema
Karimama
Albarkaize
Bana
Mariina
Bunza
Kamba
Agwada
Birnin Tudu
Tanda
Asarara
Gwandi
Bengou
Suru
Malanville
Gaya
Géza
Tabkin Kada
Kamba
Goro Malam
Anderai
Isséné
Guéné
Fanna
Kwawai
Fokku
Kokanawa
Bangoun
Madécali
Kwakwaba
Illoua
Kurukuru
Dakingari
Kamtu
Goungoun
Kassa
Lollo
Illo
Kwasara
Baban-Dada
Alfa Koara
Bani
Dabaga
Dabai
Mokollé
Gidan Liman
Chodu
Kalli
Koko
Zuru
Banikoara
Angaradebou
Sambi
Bagudo
Bounza
Sainji
Kangiwa
Kangi
Lolo
Yamusa
Tsamiya
Ganwo
Kandi
Lougou
Kajoé
Majé
Darana
Rijau
Dakou
Gbessé
Bensakou
Segbana
Libousson
Gogonou
Konkwesso
Yelwa
Gulbin Boka
Libanté
Waya
Dougoulaye
Kuté
Tunga Mahuta
Zougou
Monrou
Néganzi
Pantrossi
Sokonbara
Ibeto
Bessassini
Gaouenzi
Babana
Kontagora
Dunkassa
Péonga
Kidarouperou
Kubli
Shangunu
Salka
Utachu
Bembéréké
Bouanri
Bouka
Kalalé
Dekola
Luma
Auna
Gurai
Guesou
Shagwa
Kali
Nikki
Ndali
Tchikandou

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larly striking between Gaya and the Beninese border, where construction machinery has been abandoned in the middle of that section of the road and through which pass uranium convoys and most imports from Niger. Further north, a stretch of road linking Niger to the city of Kamba has been abandoned for the past number of years. This artery is, nevertheless, one of the main entry and exit points between the Nigerian market and Niger.

- In Benin, Malanville would greatly benefit from the opening of Nigerian borders as this would make it possible to reach the large markets at Jega and Sokoto in less than four hours (Map 1.9). In the same amount of time, it would be possible to reach Niamey, the Nigerien capital located 300 kilometres to the northwest.

- In Nigeria, opening the borders would increase the population base between Kamba and Kandi in Benin, which could then be reached in under two hours and, from the Niamey agglomeration, in less than three and a half hours (Map 1.10).

Urban accessibility and development policies

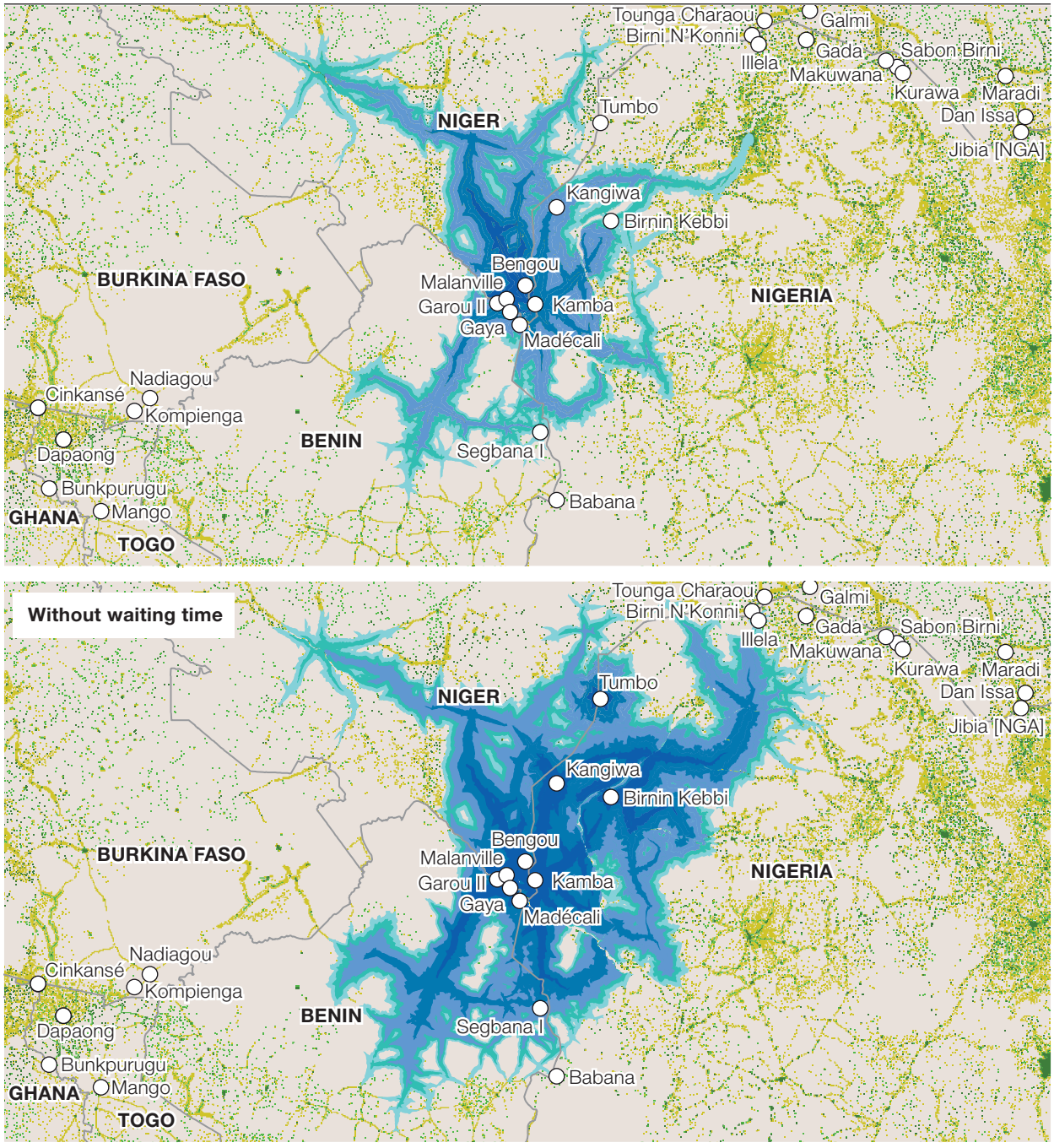
The development policies implemented in West Africa must not overlook the accessibility of cities in general, and border cities in particular. The number of people that can be reached from urban centres in the region largely determines the development of trade and production activities. From that perspective, the interconnectedness and opening up of cities through transport networks adapted to suit West African climatic and environmental constraints plays a major role in the regional integration process (Deen-Swarray et al., 2014).

The wait times observed at border crossings, the checks conducted on transport routes and the advanced deterioration of large portions of the road network constitute three major obstacles to market integration and the flow of people within the region. These obstacles, which have been quantified at the local and regional levels for the first time using an innovative accessibility model, call for differentiated political solutions. Border delays and "administrative hassles" are the products of corrupt practices and clientelistic arrangements negotiated between state employees and private-sector actors. Their resiliency testifies to the financial interests at play in the flow of goods and people within the region. The new infrastructure put in place by governments and regional organisations, aimed at improving the flow of these exchanges, must integrate interests that sometimes run contrary to the formalisation of the informal (see next chapter). The often-poor condition of the West African road network is the result of many decades of under-investment in infrastructure. A new wave of major projects backed by international institutions aims to improve this situation (Nugent, 2018) by injecting massive investments into transport corridors linking West Africa's major metropolises to each other and the rest of the continent.

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Map 1.7

Road accessibility of cities in the Dendi region with and without border delays

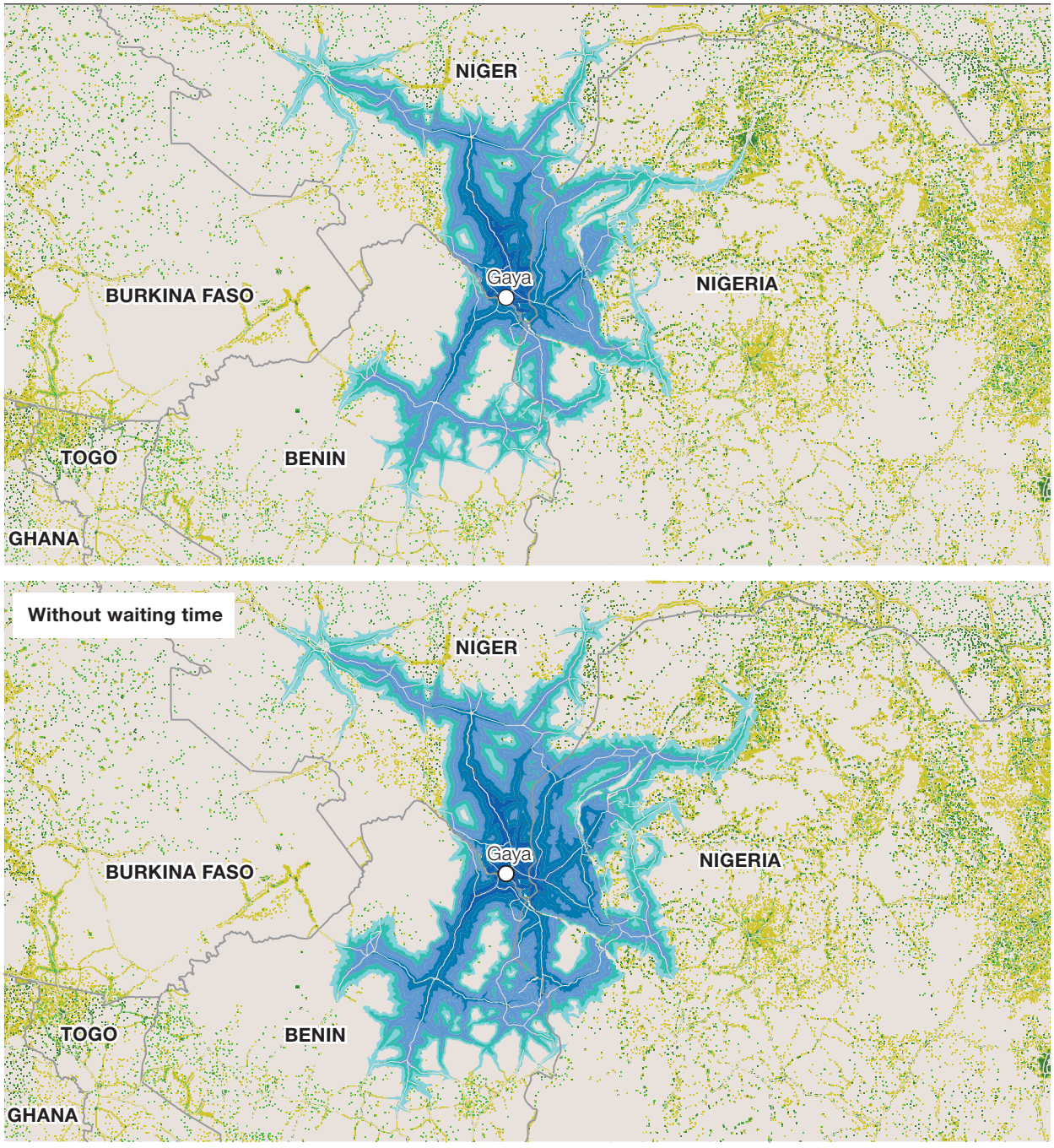


Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Lawali Dambo, University of Niamey; Wageningen Environmental Research (Alterra).

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Map 1.8

Road accessibility in Gaya (Niger), with and without border delays

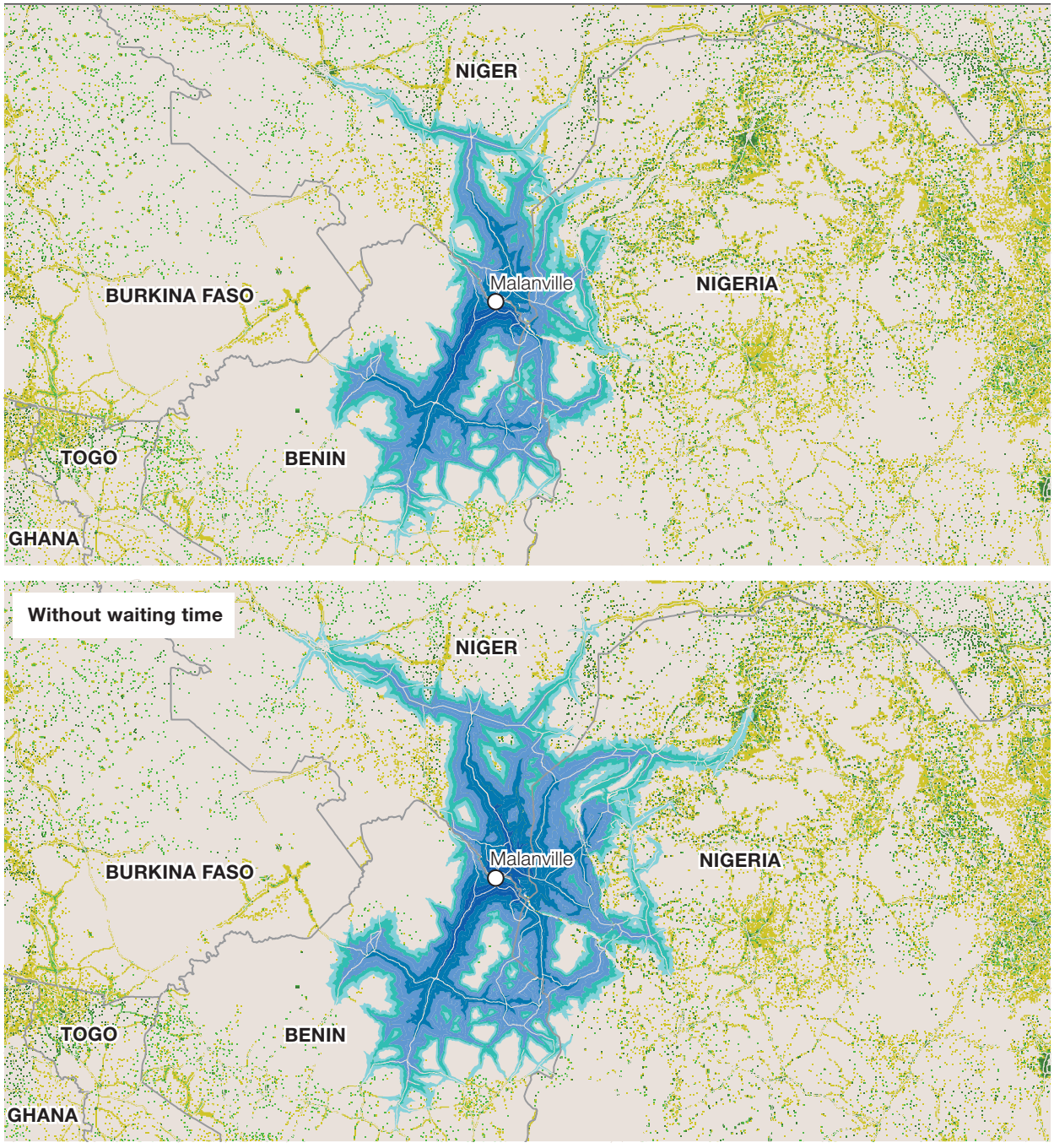


Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Lawali Dambo, University of Niamey; Wageningen Environmental Research (Alterra).

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Map 1.9

Road accessibility in Malanville (Benin) with and without border delays

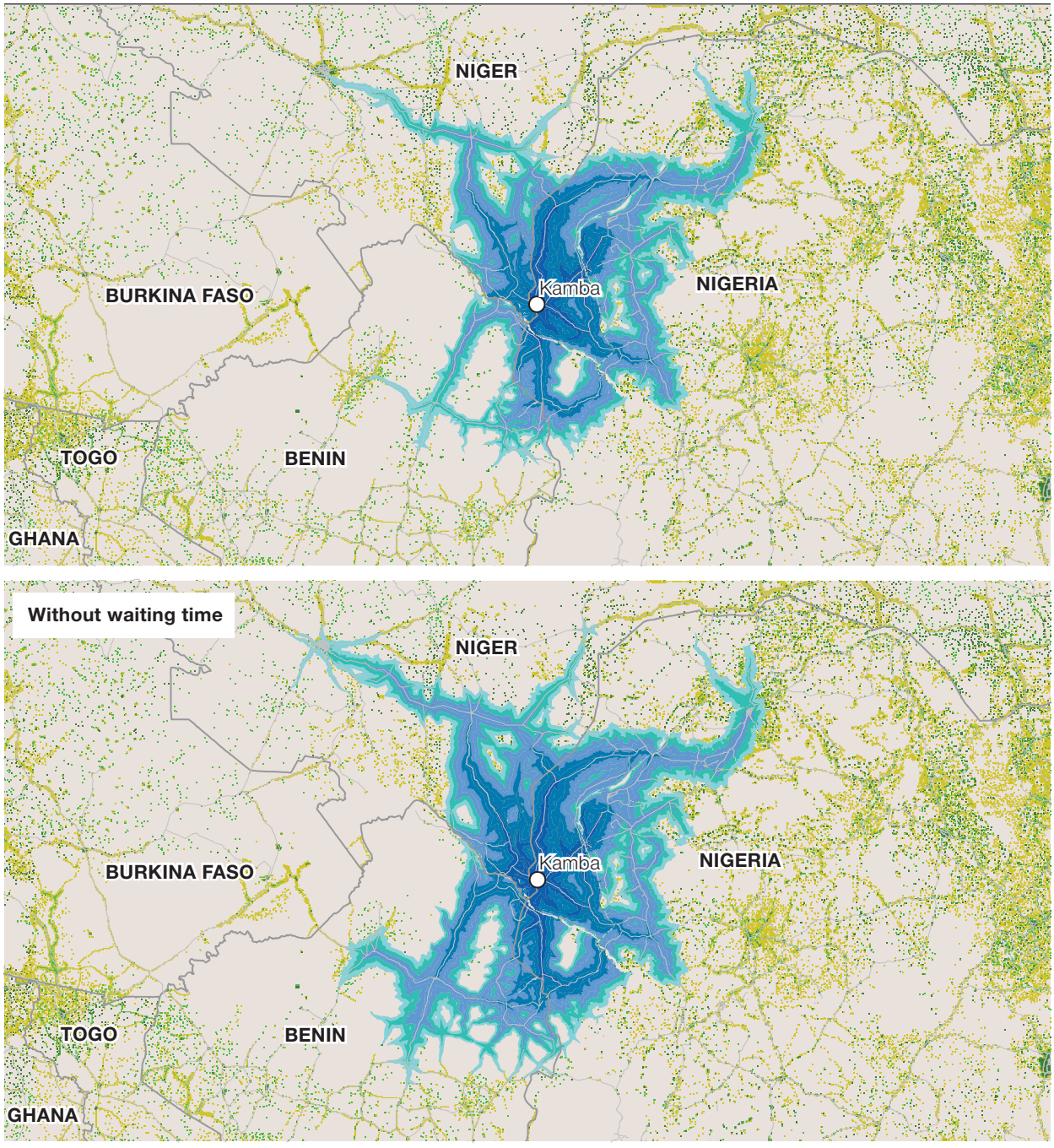


Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Lawali Dambo, University of Niamey; Wageningen Environmental Research (Alterra).

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Map 1.10

Road accessibility in Kamba (Nigeria) with and without border delays



Sources: CILSS, 2017; European Space Agency, 2010; Global Administrative Areas, 2018; Global Roads Open Access Data Set, 2018; LandScan ™, 2014; NASA, 2014; OpenStreetMap, 2018; OECD/SWAC, 2018; Lawali Dambo, University of Niamey; Wageningen Environmental Research (Alterra).

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Border cities, transport corridors and border posts

This chapter looks at two types of infrastructure for facilitating border crossings in West Africa: transport corridors and one-stop border posts. Currently, regional trade is organised in a manner that lends strategic importance to border cities and provides employment opportunities for workers in the informal sector. However, the less than perfect interconnectedness of transport networks constitutes a financial burden for public authorities in border areas, where the infrastructure is far from able to respond to the increase in regional flows. A study of 59 jointly planned or operated border posts in sub-Saharan Africa shows that trade facilitation also runs up against the special interests of public servants and private sector actors making a living from regional integration frictions. In West Africa in particular, few states are now able to benefit from the newly built border post structures in the region, most of which are not operational.

Border cities and regional trade facilitation

In West Africa, the limits of regional integration are nowhere more apparent than in border cities where permanent obstacles persist, despite the free circulation of goods and people. From Rosso in Senegal to Aflao in Ghana, long lines of trucks clog access routes to border posts, public areas in urban centres and roadside parks on their outskirts. Border crossings involve waiting and informal negotiations between public service representatives and traders (Lesser and Moisé-Leeman, 2009). A multitude of service providers and mobile vendors attach themselves to this suddenly immobilised economy of movement, occupying the roads, sidewalks, and even the offices of state employees. Once the border has been crossed, administrative procedures must generally be recommenced at the neighbouring country's border post, thereby prolonging the wait and multiplying corruptive practices.

This situation, common to all border cities, has led regional organisations and international financial institutions to put new infrastructure in place with a view to facilitating trade and reducing corruption at the borders. Investments have been made in transport corridors and one-stop border

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posts (OSBPs), two types of complementary infrastructure included in the Priority Action Plan of the Programme for Infrastructure Development in Africa (PIDA) developed in 2012 by the African Union Commission (AU) and its executive agency the New Partnership for African Development (NEPAD), the African Development Bank (AfDB) and the United Nations Economic Commission for Africa (UNECA). Corridors and OSBPs target the same objective: reducing the physical and institutional obstacles encountered by individuals and companies travelling within a region. Thus far, these initiatives have had little influence on transport times and costs in the region, mainly because they call into question practices that are well entrenched in the daily management of borders and come up against special interests in both the public and private spheres.

From trans-African highways to transport corridors

The idea of building a trans-continental transport network dates back to the colonial period, when road or rail projects linking the French and English colonies were especially popular. Between 1850 and 1950, many routes were envisaged to link the Sahelian belt to the Algerian network by way of trans-Saharan rail lines. In the 1940s, the Vichy regime planned a number of trunk lines as part of the Mediterranean-Niger railway network (Merniger) that were to connect Béchar to the bend in the Niger River and Dakar to Bamako (Map 2.1). These projects, that were intended to serve colonial prestige and France's military needs, were abandoned at the end of the Second World War.

Consequently, the African transport network inherited from the colonial period remains fragmented into several segments that, far from communicating effectively, reinforce the isolation of many regions (AfDB, 2015). Investments made in road projects starting in the 1960s, did little to remedy this fragmentation as they prioritised the building of national networks between a capital city and key peripheral areas. Trans-national routes are now quite rare, not to mention roads linking major African regions to each other, which are almost non-existent. For example, only one (relatively recently) paved road crosses the Sahara from the Atlantic Ocean to the Sudan, through Mauritania and Morocco.

The obvious handicaps of a fragmented African transport network have given rise to a number of institutional initiatives aimed at combining national projects with plans at the continental scale. In the 1970s, the UNECA revived some colonial projects in the form of a continental plan to more fully integrate the road networks of African countries. The Mombasa-Lagos route linking Kenya with Nigeria via Nairobi, Kampala and Bangui, some 4800 kilometres long, was the first project envisaged by the UNECA (AfDB-UNECA, 2003; Clacherty, 2017). In the decades that followed, a number of trunks were added to the UNECA's overall plan, but the UN organisation did not organise

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Map 2.1

Pre-independence trans-Saharan projects, 1874–1950



Source: OECD/SWAC, 2014.

the construction as this remains a national prerogative. In 2010, the trans-African master plan consisted of ten or so highways totalling a length of 57 300 kilometres, from Cairo to Cape Town and from Dakar to Djibouti (Map 2.2). The density of this ideal network, equivalent to 1.89 kilometres of road per 1 000 square kilometres is four times lower than that of the current American interstate highway network.

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Map 2.2

Overall plans for a trans-continental road network in Africa, 2010



Sources: adapted from AfDB and UNECA 2003, UNECA-AU-AfDB 2010

In West Africa, the envisaged highways would link Dakar to N'Djaména via the Sahelian belt, Dakar to Lagos via the Gulf of Guinea and Lagos to the Central African Republic via Yaoundé in Cameroon. There are plans for three major trans-Saharan routes: one to link Mauritania to North Africa via the Moroccan coast, the second to connect Algiers to Nigeria via Agades and the third to link Tripoli with Chad via Fezzan. The maintenance done on existing road networks and progress on the trunks to be built varies significantly from country to country. While some missing links have been completed, for example, between Nouadhibou and Nouakchott and between Kayes and Bamako, other road segments have not yet been paved or are unlikely to be completed in the near future due to political instability, as is the case in southern Libya.

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Despite problems with planning and building these transport routes, completion of a trans-continental transport network remains, now more than ever, a priority for African regional organisations and international financial institutions, including the World Bank and the AfDB (World Bank, 2015). This renewed interested in major projects on the part of international organisations since the early 2000s contrasts with the relative disinterest seen in the structural adjustment decades, which resulted in under-investment in transport and the privatisation of rail and port infrastructure. The upsurge in interest in such projects is due to a combination of factors including a rediscovery of the economic opportunities that regional integration can generate, an increase in the price of raw materials, new technologies for better monitoring and controlling the flow of people and merchandise (McLinden et al. 2010), and new forms of public-private partnerships involving major European and Chinese investors (Nugent, 2018).

A much-deteriorated road network, narrow roads and numerous roadside checks considerably reduces the average speed of vehicles travelling on the transport corridors envisaged by African regional organisations and their international partners. For example, the route linking Abidjan to Lagos on the Gulf of Guinea crosses through the most densely populated region in West Africa. Thousands of trucks travel along this corridor daily and the numerous road blocks set up by the customs, immigration and police services add to traffic density further slowing the pace of economic exchanges, especially between Cotonou and Nigeria (ALCO, 2017). And so, for some travellers, the 60 kilometre trip between Badagry – on the outskirts of Lagos – and the economic capital of Benin can take up to half a day, whereas under optimal transport conditions it would take 90 minutes.

The large human population and as yet unexploited potential of the coastal area between Abidjan and Lagos led ECOWAS to identify this area as a priority for regional integration. A multinational project has been developed by Togo, Benin and UEMOA to upgrade the central part of the corridor between Lomé and Cotonou and reduce trade barriers (AfDB-UEMOA, 2017). Several indicators for measuring trade, road blocks and accidents were used by the Abidjan-Lagos Corridor Organisation (ALCO) to monitor progress on reducing non-tariff barriers. Private-sector actors are not part of this intergovernmental initiative, contrary to others such as the Walvis Bay Corridor Group, which includes actors from governments and associations representing the logistics, trade and transport sectors (Nugent, 2018a).

Given the transport conditions in the region, use of the term *trans-African highway,* which is sometimes used to refer to the main routes in West Africa, appears to be an exaggeration. The many physical and institutional obstacles along West Africa's roadways slows and segments trade between neighbouring countries. For example, transport companies rarely travel the entire length of the coastal belt between Abidjan and Lagos. The field statistics and

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Box 2.1

Programme for infrastructure development in Africa (PIDA)

The Programme for Infrastructure Development in Africa (PIDA) is a joint initiative of the African Union Commission (AUC) and its New Partnership for Africa's Development Planning and Coordination Agency (NPCA), and the African Development Bank (AfDB). It is dedicated to facilitating continental infrastructure integration throughout Africa. Conversely, deficient infrastructure in today's Africa is a problem that severely hampers its competitiveness in the world market. The lack of infrastructure in Africa is widely recognised. The road access rate is only 34%, compared with 50% in other parts of the developing world, and transport costs are higher by up to 100%.

PIDA assumes that the average economic growth rate for African countries will be 6% a year between 2010 and 2040, driven by a surging population. This continuing growth and prosperity will swell the demand for regional infrastructure, already one of the continent's greatest impediments to sustainable development. PIDA proposes the completion of a substantial network of freeways that links ports and cities to the hinterlands (Map 2.3). Now referred to as transport corridors, the proposed road and rail network is supposed to respond to the imperfect integration of African markets by connecting the continent's main production and consumption centres and providing a link between the Gulf of Guinea and landlocked countries (AFDB-AU-NEPAD, 2012). As a result, it aims to integrate markets, reduce transport costs, and establish connectivity so that goods can reach markets and communities can exchange information and increase overall regional competitiveness.

The challenges are illustrated by the pitfalls encountered in implementing regional infrastructure policies, as well as by the mixed experience of historical infrastructure projects. Nearly half a century after the Trans-African Highway (TAH) network was proposed in 1971 by UNECA, 25% of the roads remains unconstructed and 65% are still unpaved, mainly in central Africa. Today, the TAH project has been absorbed into the broader PIDA. The original UNECA masterplan remains the basis for the road network but has been supplemented by regional "corridors" and networks of "continental connectivity", without specifying newer figures on the overall process of implementing the missing links in the TAH program. PIDA identifies the following priority action plans: Phase I of the continental connectivity programme which focuses on completing the TAH missing links by 2030, modernising the Northern, North-South and Central Multimodal ARTIN Corridors (climbing lanes and urban bypasses) as well as the Abidjan-Lagos, Dakar-Niamey and Praia-Dakar-Abidjan Multimodal Corridor.

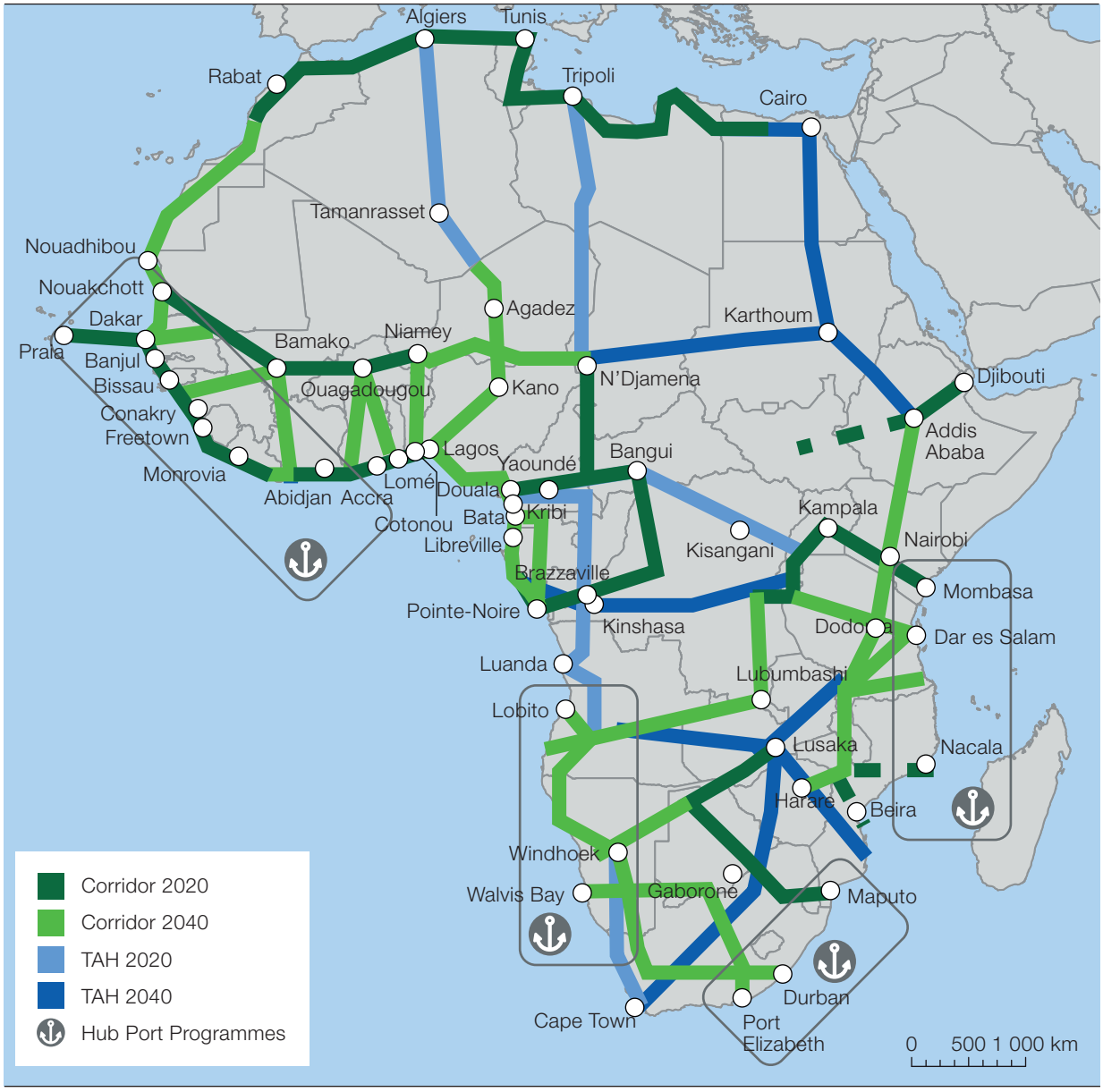
Progress on implementation has stalled for a number of complex reasons. There is a profound lack of co-ordination and harmonisation of laws, standards, and regulations between African countries that complicates the processes of planning and financing regional projects. The transport sector provides a striking illustration of this. Conflicting policies and poor physical infrastructure hinder international trade. In addition, raising finance for regional projects is complicated (even those undertaken in the public sector with grant financing) because of the number of actors involved and the risk that the commitments of actors will waver.

Success will therefore depend on political consensus, effective regional institutions and regulatory frameworks, and cross-border project financing. Given the daunting investment agenda, better sequencing of regional projects is essential. Reducing the infrastructure deficit is vital for Africa's economic prosperity but remains the main challenge. The project will cost around 360 billion USD between 2011 and 2040. Attracting private sector participation through Public-Private Partnerships (PPPs) is therefore essential, but has also proved extremely challenging. Regional infrastructure involves a high level of trust between countries. The major risk faced by PIDA relates to

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difficulties in achieving consensus among stakeholders on the location of urgently needed transport infrastructure (in particular hub ports and airports). In the absence of any agreement, PIDA could follow its TAH predecessor and become another "top down" theoretical exercise poorly aligned with the priorities of African countries and unlikely to generate the needed investment.

Map 2.3
Continental transport programme



Note: TAH Trans-African Highway
Source: adapted from AFDB-AU-NEPAD (2012), African Union (2014a) and ACMA (2017)

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observations available suggest, on the contrary, that most travel only one section of the corridor or are required to unload their merchandise at the border so that it can be shipped to a neighbouring country (Nugent, 2018b).

This segmentation has an impact on border cities. On the one hand, the fact that the corridors are not fully integrated across the region lends strategic importance to cities located near a border and provides employment opportunities for workers in the informal sector who sell their products and services to travellers and international transport companies (see West African Papers, no. 21). Border cities also provide financial opportunities to civil servants responsible for monitoring the national territory, transport unions and decentralised local authority officials. Civil servants and workers in the informal sector make a living from the immobility imposed on regional flows crossing borders. They have everything to lose from the formalisation of regional trade, which would result in most international trade passing through a limited number of transport corridors linking the major metropolitan areas in the region.

On the other hand, the less than perfect interconnectedness of transport networks is a financial burden for public authorities in border areas, where the infrastructure is far from able to respond to the increase in regional flows. The large numbers of people and vehicles concentrated in urban areas creates congestion and pollution problems that outstrip the financial means of local and regional authorities in border areas. In many cities, including Aflao and Malanville, lines of trucks waiting to complete customs formalities can reach a length of up to several kilometres causing accidents, pollution and delays that impact local citizens and international transport companies. The lack of health infrastructure in border areas is conducive to the spread of diseases and epidemics such as HIV/AIDS and the Ebola virus, whose cross-border aspects are well-known (Abdullah and Rashid, 2017). The heavy concentration of people in border areas also fosters criminal activity, prostitution and the sexual harassment of women traders. These conditions, which are unfavourable for economic actors and their merchandise, justifies the need to develop infrastructure in keeping with the size of border cities, including OSBPs.

Regional diversity and border posts

OSBPs consist of infrastructure jointly developed by two countries in order to simplify border crossings. Requiring a single stop, they help reduce wait times at the border for individuals and transport companies, simplify administrative procedures and improve the co-ordination of information-sharing between neighbouring countries (Ben Barka, 2012; African Union, 2016). OSBPs are also intended to reduce the possibility of informal arrangements between civil servants and private actors by providing a more transparent physical and institutional framework than do conventional border posts.

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These new border posts were developed in the eastern part of the continent in the mid-2000s, on the initiative of the East African Community (EAC), and the Common Market for Eastern and Southern Africa (COMESA). A number of sources provided the financing: the AfDB, the Japan International Cooperation Agency (JICA), the World Bank, TradeMark East Africa, the Department for International Development (DFID), the International Organization for Migration (IOM), the European Union (EU) and UEMOA. In December 2009, the first juxtaposed OSBP was inaugurated in Chirundu, between Zambia and Zimbabwe. The structure was put in place after a new bridge was built over the Zambezi River and customs infrastructure in the region was upgraded. The first reference document discussing the advantages and codifying the principles of juxtaposed OSBPs on the continent was published by the African Union in 2011. The second edition provides an overview of best practices, institutional procedures, funding mechanisms and the tangible accomplishments that facilitate the development of OSBPs (African Union, 2016).

Several types of OSBPs have been developed in Africa in the past few years.

- Juxtaposed OSBPs combine the services of two countries into a single point of contact. Unlike traditional two-stop border posts, which require that formalities be repeated on each side of the border, juxtaposed OSBPs enable civil servants to control flows when passengers and merchandise enter the neighbouring country only (Figure 2.1). This type of structure is well suited to countries that have administrative buildings dedicated to transit activities near the border and in which civil servants from both countries can work together. This type of post has been set up in Chirundu (Zambia-Zimbabwe), Kazungula-Bonazazi (Zambia-Botswana), Lunga-Hororo (Kenya-Tanzania), Malaba (Kenya-Uganda), Moyale (Ethiopia-Kenya), Namanga (Kenya-Tanzania) and Rusumo (Rwanda-Tanzania) (Figure 2.2).

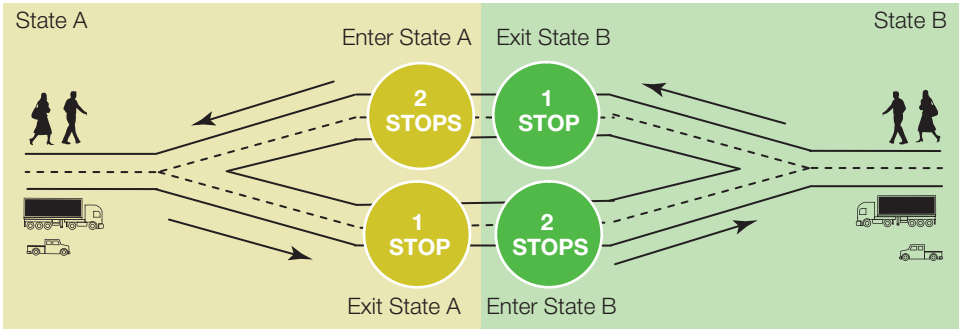
- OSBPs consist of a single building that straddles the border and at which all formalities for both countries are completed on entry or exit. This type of post is well suited to borders where new structures are to be jointly built. Such facilities are in place at Hillacondji-Sanveekondji (Togo-Benin), Kagitumba-Miramar Hills (Rwanda-Uganda) and Nemba-Gasenyi (Rwanda-Burundi) (Figure 2.3).

- Single-country OSBPs – one variation on this type of facility – consist of a single office located in one of the two countries. They can be found in regions across Africa. In West Africa, they are located in Ayorou-Labézanga (Niger-Mali), Cinkansé/Cinkassé (Burkina Faso-Togo), Krake-Sémé (Benin-Nigeria), Makalondi-Kantchari (Niger-Burkina Faso), Malanville-Gaya (Benin-Niger), Mfumi-Ekok (Nigeria-Cameroon), Noépé-Akanu (Togo-Ghana), Pamalap-Kambia (Guinea-Sierra Leone) and Pétel Kolé (Burkina Faso-Niger) (Figure 2.4).

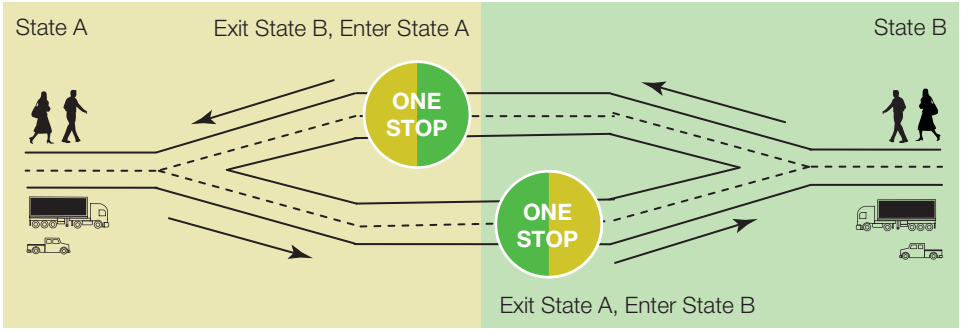
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Figure 2.1
Types of border posts

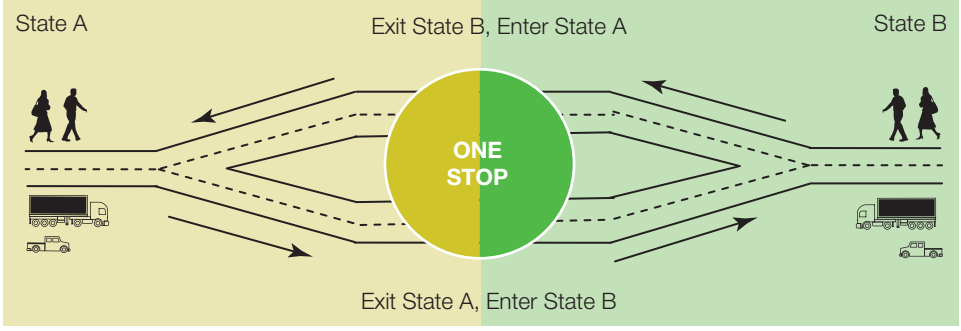
Traditional border post



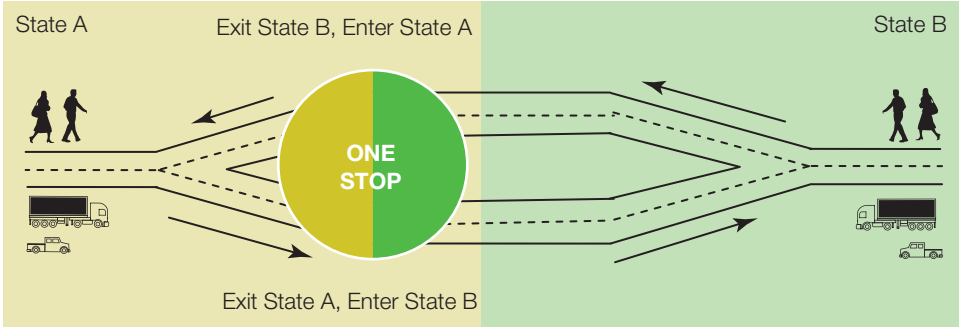
Juxtaposed border post



Straddling border post



Single-country border post



Source: adapted from African Union, 2016

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Figure 2.2
The Chirundu (Zambia-Zimbabwe) juxtaposed OSBP



Source: Google Maps, 15 June 2016

Figure 2.3
The Hillacondji-Sanveekondji (Togo-Benin) straddling OSBP



Source: Google Maps, 8 November 2017

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Figure 2.4
The Noépé-Akanu (Togo-Ghana) single-country OSBP



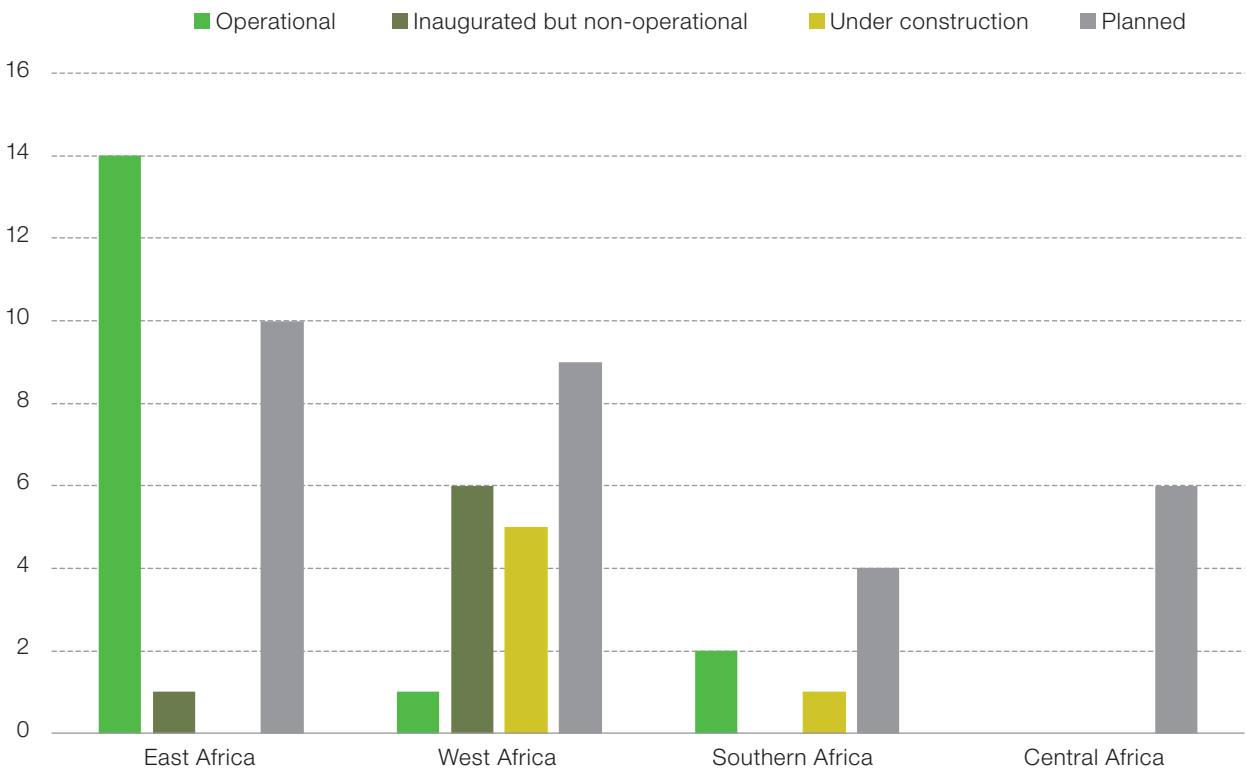
Source: Google Maps, 11 January 2018

Based on surveys conducted by SWAC, in 2017 there were 59 OSBPs spread throughout sub-Saharan Africa from Rosso in Senegal to Komatipoort in South Africa (Map 2.4). The stage of completion of these facilities varies a great deal. There are 25 such posts in East Africa, of which 14 are operational and 10 are in the planning stage. Most are located on the borders of Kenya, Tanzania, Uganda and Rwanda (Figure 2.5). There are 21 in West Africa; only one of them is operational, while nine are in the planning stage. All inaugurated but non-operational posts were built in the central part of West Africa on borders from eastern Mali to southern Benin. While proposed structures are to be located in the western part of the region, in particular on the borders of Burkina Faso and Senegal as well as between Sierra Leone and Liberia. Relatively few OSBPs are located in southern Africa: only those in Chirundu (Zambia-Zimbabwe) and Komatipport Lebombo-Ressano Garcia (South Africa Mozambique) are operational, while five others are in the planning or construction stage. In Central Africa, none of the six OSBPs planned by national governments and African regional organisations were completed in 2017.

In sub-Saharan Africa, the single-country border post is the most common type being built or already completed (57%), followed by juxtaposed border posts, which account for 25% of the total number. Only 10% of border posts

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Figure 2.5
Border posts by region and status, 2017



Source: African Union, 2016 and SWAC/OECD surveys

are of the straddling type at which state service facilities straddle the border; the type of structure in place at the remaining border posts is unknown. Juxtaposed and straddling OSBPs are the most common types of border facilities in East African and southern African countries. However, 75% of border posts in West Africa are single-country OSBPs at which joint border services are hosted by one of the two countries (Figure 2.6).

OSBPs vary in terms of infrastructure and the geographical context into which they are inserted. At the continental level, just under half of existing border posts (46%), either under construction or proposed, are located between two border cities where the urban built environment between the two is not continuous (Figure 2.7). This configuration occurs frequently in West Africa, where "twin cities" are prevalent. Some such cities are separated by a river, including Gaya and Malanville (Niger River), Diboli-Kidira (Senegal River), Messina-Beitbridge (Limpopo River), Kinshasa-Brazzaville (Congo River) and Chirundu (Zambezi River). Just over one-quarter of border posts (27%) are located in a densely populated border area where it is sometimes difficult to determine the exact location of the border line. This is often the case in East Africa, including Busia (Uganda-Kenya), Moyale (Ethiopia-Kenya), Mutukula

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Map 2.4
One-stop border posts (OSBP), 2017



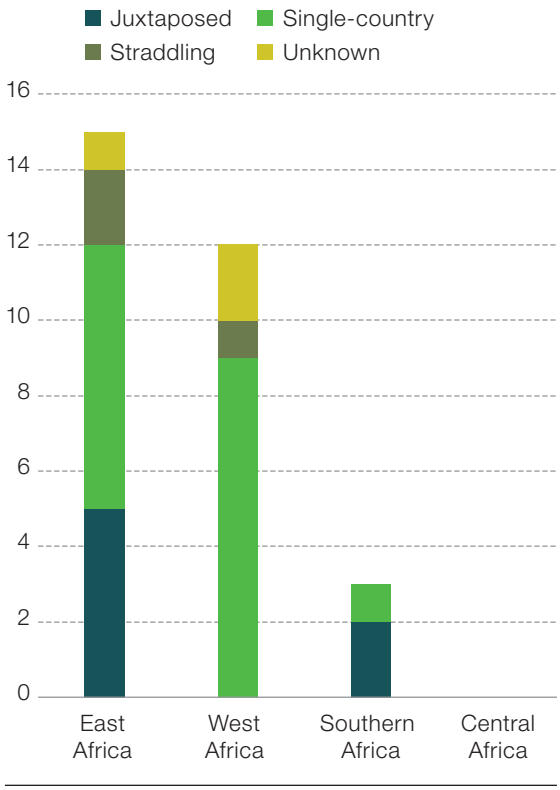
Sources: African Union, 2016 and SWAC/OECD surveys

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GERIA
LIBYA
EGYPT
SAUDI ARABIA
QATAR
NIGER
ga
CHAD
SUDAN
ERITREA
YEMEN
tel Kolé
Makalondi-Kantchari
Malanville-Gaya
Kousséri
Kurmuk-Metema
DJIBOUTI
kansé
ENIN
NIGERIA
Dewele-Galafi
SOMALIA
Bekay-Bedayo
ETHIOPIA
Kraké-Sémé
Mfumi-Ekok
CENTRAL AFRICAN REPUBLIC
SOUTH SUDAN
Garoua-Boulai
CAMEROON
Moyale
lilacondji-nveekondji
Campo
Mbalam
UGANDA
EQUATORIAL GUINEA
Malaba
KENYA
Busia
SAO TOME AND PRINCIPE
GABON
CONGO
Isibania-Sirari
DEMOCRATIC REPUBLIC OF THE CONGO
RWANDA
Namanga
Ndende-Doussale
Holili-Taveta
BURUNDI
Brazzaville-Kinshasa
Lunga-Hororo
TANZANIA
Tunduma-Nakonde
SEYCHELLES
Dilolo-Luau
ZAMBIA
COMOROS
ANGOLA
MAYOTTE
MALAWI
MOZAMBIQUE
Chirundu
Katima Mulilo-Sesheke
Nyamapanda-Cuchamano
Oshikango-Santa Clara
Kazungula-Bonazazi
ZIMBABWE
Forbes-Machipanda
MADAGASCAR
Buitepos-Mamuno
BOTSWANA
Messina-Beitbridge
NAMIBIA
Komatipport Lebombo-Ressano Garcia
SWAZILAND
LESOTHO
SOUTH AFRICA
0
1000 km

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Figure 2.6
Types of border posts by region, 2017



Note: No posts were built in Central Africa as of 2017.
Sources: African Union, 2016 and SWAC/OECD surveys

(Uganda-Tanzania) and Tunduma-Nakonde (Tanzania-Zambia). In West Africa, this type of border post can be found in the Gulf of Guinea conurbation at Kraké-Sémé (Benin- Nigeria) and Hillacondji-Sanveekondji (Togo-Benin). Another 25% of border posts are located in a rural area, in particular in the Great Lakes region, including Gatuna-Katuna (Uganda-Rwanda), Kobero-Kabanga (Burundi-Tanzania), Ruhwa and Nemba-Gasenyi (Rwanda-Burundi). Lastly, in rare instances border posts were built in a region with only one border city: in Ishasha between the Democratic Republic of Congo and Uganda and in Kurmuk between Ethiopia and Sudan.

Border frictions

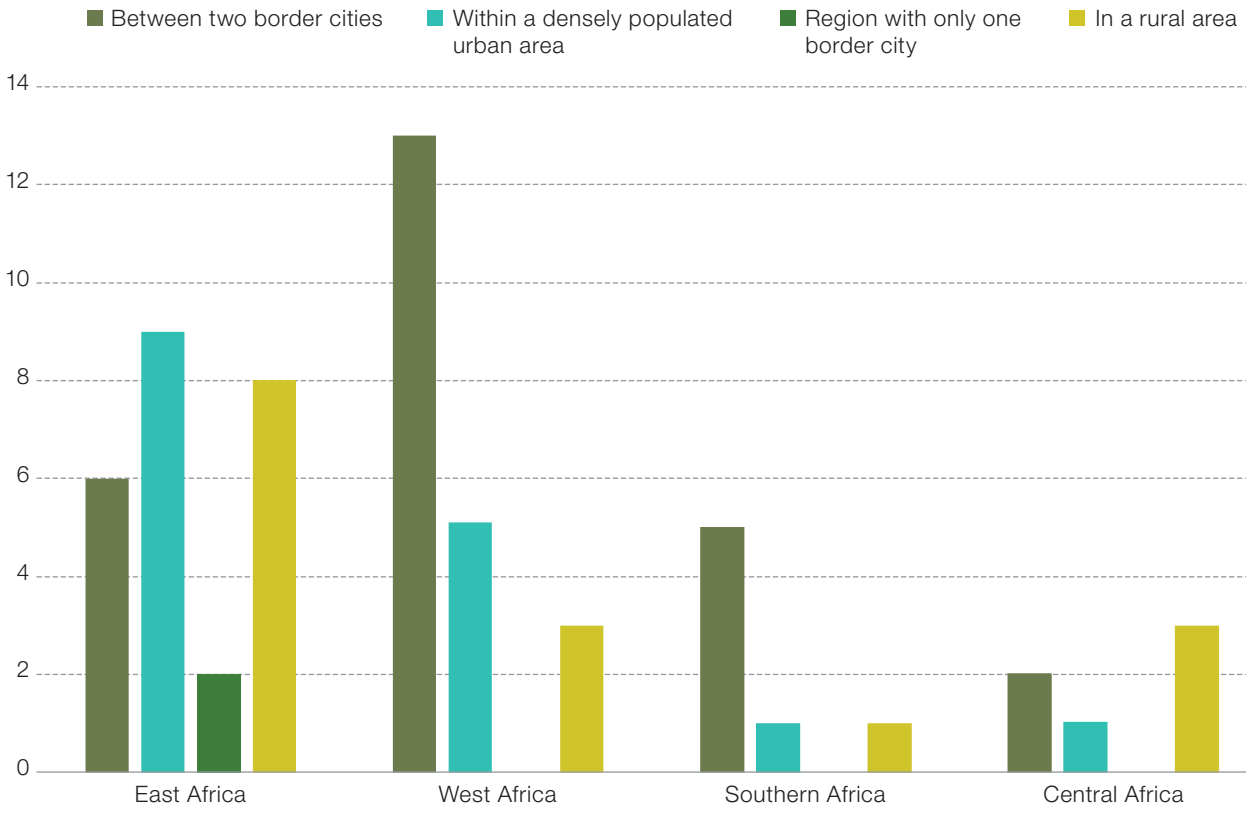
West Africa is the continental region with the highest percentage of non-operational OSBPs. Why are there problems with setting up these structures that are intended to facilitate trade and reduce corruption? This question is an important one, not only for the African states and regional organisations that backed the construction of six border posts that were non-operational in 2017, but also for nine other planned posts.

Kraké-Sémé, Ayorou-Labézanga, Makalondi-Kantchari, Malanville-Gaya, Noépé-Akanu and Pétel Kolé all indicate that the problems encountered by non-operational border posts are linked as much to the harmonisation of customs procedures (Box 2.2) as they are to the special interests of those who make a living from border trade. OSBPs shed light on the limits of institutional integration and call into question the financial interests linked to the informal flows of people and merchandise crossing borders. While under construction, coalitions of public- and private-sector actors were formed to delay the effective operational date of border posts, in some cases for a number of years.

The Malanville-Gaya border post, which is located on the Benin side of the urban area, is one example of the obstacles at work in the region. Inaugurated in 2014, UEMOA made this OSBP officially operational in July 2018 as part of its community policy on facilitating free circulation within the

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Figure 2.7
Geographical context of border posts, 2017



Source: African Union, 2016 and SWAC/OECD surveys

region (UEMOA, 2001). At a cost of 11 billion FCFA (16.3 million EUR), the border post sits on nine hectares formerly occupied by the city's main market (Figure 2.8). This very extensive market provided a wide array of products. Before it was destroyed in the early 2010s, the covered portion of the market – seen in grey on the satellite images taken in 2008 and 2010 – provided space for vendors selling textiles, electronics and plastics, while vegetables, grains, onions and tubers were sold in the northern section (Walther, 2008). The vitality of the market was due, for the most part, to its strategic geographic location on the Cotonou-Niamey route and the initiative of non-native vendors, in particular from Nigeria, who established businesses there for a small sum. The market was also the main storage site for grains and local agricultural products, such as rice and onions, before being exported to Niger or Nigeria.

The construction of an OSBP has had an enormous impact on the urban fabric of the area. On the one hand, thousands of traders were forced to move further west than their initial location, and under difficult conditions, until the market was partially redeveloped by the Swiss Agency for Development and Cooperation in 2017. The new facilities can be seen in white on the satellite image taken in 2014 (Figure 2.8). On the other hand, international

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Figure 2.8
Construction of the Malanville juxtaposed OSBP, 2008, 2010 and 2014

2008



2010



2014



Source: Google Maps, 6 March 2008, 9 June 2010, 6 January 2014

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traffic has been diverted onto a secondary route that has crossed a portion of the old market since the beginning of the construction phase. This narrow road quickly becomes saturated by the influx of trucks and street vendors formerly present in the market, making it very difficult to get around in the northern part of the city.

The opening of the OSBP was delayed by claims made by the public authorities responsible for controlling the border, based on technical arguments such as the bearing of arms, to justify their reluctance to collaborate more actively with civil servants in the neighbouring country. However, such arguments mask the financial motivations that the effective opening of the border post could jeopardise (Sawadogo, 2018). Indeed, plans have been put in place to formalise and make more transparent police and the customs procedures of both countries, so that civil servants can more effectively share information on the entry and exit of people and merchandise. Should this objective be achieved, it will make illegal payments, under-reporting and informal arrangements more difficult, thereby reducing the profits of civil servants who authorise these types of practices.

The Malanville OSBP also jeopardises the investments made by some private-sector actors who provide services to transport operators in areas along the border. The plan to facilitate trade and reduce wait times at borders will make these investments less profitable than before. On the Nigerien side in particular, resistance is centred on a parking facility – owned by an investor

Box 2.2
The Noépé-Akanu OSBP (Togo-Ghana)

It was in an effort to solve the congestion problem that the two governments agreed to open an OSBP at Noepé-Akanu, which is some 40 kilometres from Aflao. The reasoning behind the idea is that trucks coming from Tema in Ghana would follow the upgraded highway between Akatsi and Dzodze and then branch off to the OSBP. Despite the commissioning of the OSBP by Presidents Mahama and Faure in 2015, it has never been opened for business – in part because of the practical difficulties of harmonising border procedures. In Aflao, the hope is that the OSBP will be killed off because it would have a negative impact on the commercial life of the town. The freight forwarders of Aflao are also reluctant to shift their operations to a distant place where they would have to rent offices and accommodation.

Although the congestion in Aflao is undeniable, the contention is that an OSBP could have been constructed much closer to the existing crossing. The people of Aflao have become used to congestion which, after all, brings with it many opportunities – notably for head porterage, currency changing and street trade, but if the Togolese traffic was re-routed, that would also have an impact on the southern *quartiers* of Lomé that are closest to the border, notably Kodjoviakopé and Nyékonakopé. More fundamentally, there is a widespread sense that the special relationship between Lomé and Aflao would be jeopardised. There is currently an impasse as advocates of the cross-border community and the need to protect local livelihoods run up against imperatives surrounding national security and regional integration.

Source: Paul Nugent 2018a

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from Gaya who became rich from the cement trade – where vehicles park while waiting for customs formalities to be finalised (Koné, 2015). The owner of the facility pays a portion of the profits to the municipal government of Gaya in the form of a set monthly tax (Oumarou, 2017). Neither the owner of the parking facility nor the municipal government have any interest in the opening of a border post that would reduce their revenues and transfer some lucrative activities to the Benin side of the border.

The impact of transport corridors and OSBPs on regional integration and cross-border development will probably vary according to the scale of activities and level of involvement in formal activities of traders (Dobler, 2014). Because these initiatives aim at reducing barriers to trade, and hence the frictions caused at border posts, they might encourage firms in the formal sector to trade regionally and result in a significant reduction of cross-border opportunities for local traders. Border markets could lose some of their revenues if goods no longer wait before crossing border checkpoints, if informal bargaining is reduced to a minimum between traders and state officials, and if traders invest less locally. However, OSBPs and transport corridors are probably not a great threat to small and/or informal traders, who don't use the formal procedures and infrastructures anyway and for whom crossing the border is likely to remain a profitable business as long as they can develop strategies that exploit the porosity of the border (Walther, 2014). In the medium term, policies to encourage and respect the protocol of free movement could be carried out alongside the development of infrastructure (roads, telecommunications, market planning), highlighting new opportunities related to OSBPs.

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West African Papers

Accessibility and Infrastructure in Border Cities

This report, part of the "Cities" collection, analyses road accessibility, transport corridors and checkpoints set up in border towns in West Africa. An innovative model shows that the population base of border towns could be 14% greater if there were no delays at border crossings. The existence of roadside checks decreases the size of this population base from 12 to 50%. A study of 59 jointly planned or operated border posts in sub-Saharan Africa shows that trade facilitation runs up against the special interests of public servants and private-sector actors making a living from regional integration frictions.

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