

The Trans-Saharan Road Corridor

Towards an Economic Corridor: Commercializing and Managing the Trans-Saharan Road



THE TRANS-SAHARAN ROAD CORRIDOR

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Under the overall guidance of Shamika N. Sirimanne, Director of the Division on Technology and Logistics of UNCTAD, the report was prepared by an UNCTAD team led by Frida Youssef (Chief, Transport Section, Trade Logistics Branch, Division on Technology and Logistics) and which included Hassiba Benamara (Economic Affairs Officer, Transport Section, Trade Logistics Branch, Division on Technology and Logistics), Abdelmoula Ghzala (International Consultant) and Ahmed Ayoub (Intern-Consultant). It was also reviewed by Jan Hoffmann (Chief of Trade Logistics Branch, Division on Technology and Logistics). The report was edited by Carter Dougherty and designed and formatted by Gilles Maury. The cover was designed by Magali Studer (UNCTAD).

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The views expressed in this document are those of the authors. They do not necessarily represent the official views of the IsDB, the CLRT and its members.

Abbreviations and Acronyms

AfCFTA	African Continental Free Trade Area
ADB	Asian Development Bank
ADT	Average Daily Traffic
AfDB	African Development Bank
ASEAN	Association of Southeast Asian Nations
ASYCUDA	Automated System for Customs Data
AU	African Union
CAREC	Central Asian Regional Economic Cooperation
CEMAC	Central African Economic and Monetary Community
CEN-SAD	Community of Sahel-Saharan States
CLRT	Comité de Liaison de la Route Transsaharienne
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community for West African States
EU	European Union
FDI	Foreign Direct Investment
GMS	Greater Mekong Sub-region
ICT	Information and Communication Technology
IsDB	Islamic Development Bank
LPI	Logistics Performance Index
MERCOSUR	Southern Common Market (Mercado Común del Sur)
MoU	Memorandum of Understanding
Mt	Metric ton (1,000 kg)
NAFTA	North American Free Trade Agreement
NC-TTCA	Northern Corridor Transit Transport Coordination Authority
PPPs	Public-Private Partnerships
SAARC	South Asian Association for Regional Cooperation
SACU	Southern African Customs Union
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SIECA	Central American Common Market
SSA	Sub-Saharan Africa
SSATP	Africa Transport Policy Program
TA	Technical Assistance
TAH	Trans-African Highways (or Trans-African Road Corridors)
TEN	Trans-European Transport Network
TIR	International Transport of Goods (Transport International Routier)
TRACECA	Transport Corridor Europe-Caucasus-Asia
TSR	Trans-Saharan Road
TTFA	Transport and Trade Facilitation Audit
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
VPoA	Vienna Plan of Action
WAEMU (or UEMOA)	West African Economic and Monetary Union (or Union Economique et Monétaire Ouest-Africaine, UEMOA in French)
WCO	World Customs Organization
WTO	World Trade Organization
WHO	World Health Organization

Note: All references to dollars (\$) are to United States dollars, unless otherwise stated

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EXECUTIVE SUMMARY

1 - Context

Trade and transport corridors, which are mainly major routes that facilitate the movement of people and goods between regions and between countries, have existed for millennia. These corridors enable regions and countries to offer high-capacity transport systems and services that reduce transport time, and trade and transport costs, by improving connectivity, efficiency and by creating economies of scale. Regional corridors are particularly important to landlocked countries, where they are economic lifelines, often providing the only overland routes to ports that lead to regional and international markets.

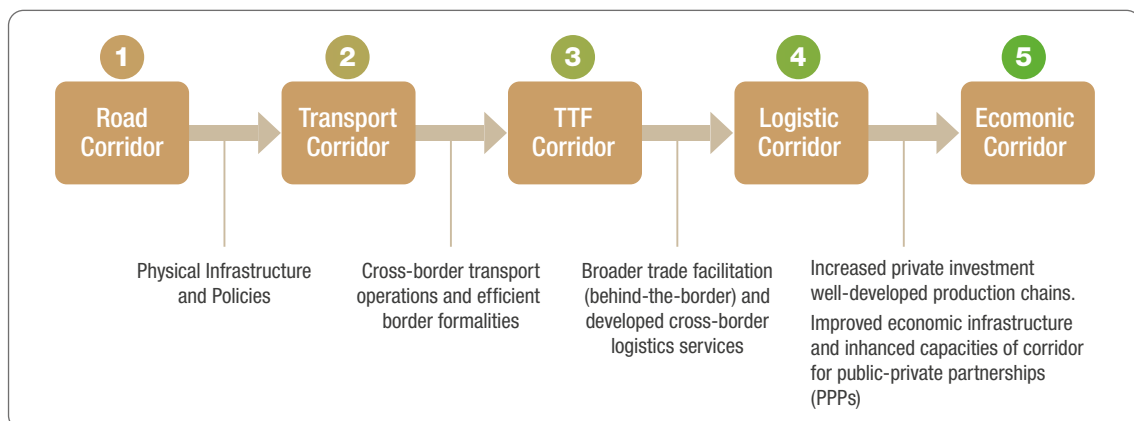
The Trans Saharan Road (TSR) corridor is one of the nine main Trans-African Highways (TAH) corridors being developed by the United Nations Economic Commission for Africa (UNECA), the African Union (AU), the Islamic Development Bank (IsDB) and the African Development Bank (AfDB) with the support of other regional and international organisations and development institutions (such as the Arab Bank for Economic Development in Africa - BADEA and UNCTAD).

The TSR corridor is also one of the oldest transnational road corridors in Africa and one of the most complete, having been proposed in 1962, with construction of sections in the Sahara starting in the 1970s. The TSR corridor links Algeria, Chad, Mali, Niger, Nigeria, and Tunisia (three port countries and three landlocked ones). The 4,500 km long North-South backbone (main road) of the corridor connects the ports of Algiers and Lagos through Algeria, Niger, and Nigeria. An additional 4,600 km of linked highways (feeders) to Tunisia, Mali, Niamey (in Niger) and Chad are considered an integral part of the TSR corridor. Some 80% of the TSR corridor is paved (asphalted) roads. The Tunisia branch connects to the ports of Tunis and Gabès.

2 - The study

The present study is part of the technical assistance project, funded by the IsDB and implemented by UNCTAD and which aims to promote the commercialization of the TSR corridor and its evolution towards an economic corridor and by establishing a relevant management mechanism.

Evolution from Transport Corridor to Economic Corridor



It is important to establish a regional transport corridor management mechanism that will ensure effective coordination and collaboration among TSR corridor stakeholders, including users and service providers. The ultimate objective of the TA project is to promote trade, improve the reliability and efficiency of transport, minimize delays and transit times through improved policies and processes, and reduce transportation costs, all of which will support transforming the road network into an economic development corridor and lay the ground for the establishment of the conditions for future regional economic integration. In line with the overall goals of the TA project and as one of the first steps, the present study includes particularly recommendations for the establishment of a cooperation framework among the TSR countries and an adequate regional trade and transport transit corridor management mechanism for the commercialization of the TSR. The study's suggestions for TSR corridor improvements and recommendations (hard and soft), including a corridor management scheme, are made mainly to transform the TSR from road corridor to transport corridor, to logistics corridor and then to an economic corridor, with the goal of regional economic integration.

3 - Reporting results

The report is structured in the way to base the recommendations on detailed analytical work and best practices of international experience. It highlights the corridor approach and its relevance for regional, national, and local economic development for any given country, and the overall importance of regional economic integration, especially in the case of landlocked developing countries.

It also describes in detail the TSR corridor and outlines its hard and soft (physical infrastructure and policies/regulations) situation and constraints and challenges. The report does not consider the impact of the Covid-19 pandemic or security issues in the Sahel region. The report summarizes the economic outlook (prior to 2020, the year when the Covid-19 pandemic erupted with consequent negative impacts on the global and national economies) for each of the six TSR corridor countries, reviews their trade separately and among them and the perspectives for potential increase, and reviews the logistics performance indicators for the countries and what measures could help improve the performance.

Based on the existing available information (at the time when it was carried out) and on a desk-review based trade and transport facilitation assessment/audit (TTFA) carried out for each of the TSR corridor countries, the report presents the trade and transport facilitation aspects in the TSR corridor and provides a diagnosis to assess corridor performance. The analytical part of the report looks at the barriers and challenges associated with road and transit transport as well as logistics operations along the corridor, including linkages with ports, and identifies potential measures/solutions for addressing those challenges.

The report looks at the need for improving the TSR corridor performance and makes recommendations for hard infrastructure, such as missing links, connectivity, logistics centers, border crossings modernization, etc., and soft measures, including regulations, policies, technological instruments, Information and communication technology (ICT), harmonization, and simplification of exchange of information, conventions, agreements, institutional, capacity building and mechanisms for monitoring and evaluation of corridor performance and impact evaluation. It provides some best practices from international experience for trade and transport corridor management schemes, as well as the criteria and choice options for selecting and adapting a model for specific situations.

Based on the analytical work and the international experience, the report draws the main conclusions of the study and makes recommendations for setting up a cooperation framework and the most suitable regional management mechanism/structure for the TSR corridor that would support effective operation, management as well as commercialization of the corridor. Overall, these measures would lay the foundation for establishing an economic development corridor and support regional integration. The report gives also the main elements required for an intergovernmental agreement (memorandum of un-

derstanding) establishing a mechanism for collaboration among TSR corridor member countries and a sustainable management structure for the corridor, as well as a recommendation outlining a TSR regional economic corridor development programs/projects and action plan to be supported for preparation and implementation by the governments, financial institutions and development partners.

4 - The relevance of a corridor approach

From an economic perspective, the function of a corridor is to promote both internal and external trade by providing more efficient transport and logistics services and trade facilitation measures, and to support connectivity and economic and social development along the routes. In the case of highway corridors, the primary reason for designating road axes and branches as part of a corridor is to focus attention on improving not only the physical routes but also the quality of the transport and other logistic services and trade facilitation measures in the corridor. This quality is measured in transit time, and cost for shipment of goods along the corridor, and the reliability of the services in terms of transit time.

When the national economic development is also targeted, the quality of the corridor may include the scope and social impact of the economic activity along the corridor. International organizations and financial institutions are increasingly supporting the corridor approach for developing countries, convinced that transport corridors are one of the direct ways to support economic integration, which is important for the growth prospects of countries, especially those that are landlocked.

5 - Findings and diagnostic of the analytical work

The TSR road corridor, its constraints, and challenges

There have been major investment efforts in road sector in the corridor by all TSR member countries, which shows the **commitment of the member states** to the corridor and its future development as an economic development vector for the sub-region. However, several missing links remain uncompleted, the roads condition is uneven between countries, and road maintenance policies and funding are lagging particularly in the three landlocked countries (Chad, Mali, and Niger).

The **traffic** (2019) on the main north-south axis is high on the sections in Algeria and Nigeria with a share of heavy traffic (trucks) of 15% in Algeria and 35% in Nigeria. On the connecting sections, the traffic is very low, except in Tunisia where the traffic from Gabès to the border with Algeria and then to Ghardaia (in Algeria on the main TSR axis) is higher than in the other connecting sections but much lower than main sections in Algeria and Nigeria.

Road safety remains a major challenge for all TSR corridor countries as enforcement of safety legislations is not strict for major laws and measures. This is exacerbated by lack of roadway signage, insufficient vehicle maintenance, defective and pirated auto parts, driver fatigue, and reckless and unskilled drivers. These are key contributing factors to the growing incidence of road traffic crashes and resulting injuries and fatalities.

Major issues are still to be addressed at the two main gateways of the north-south backbone of the TSR corridor, the **port of Algiers and the port of Lagos**. Despite its recent improvements (prior to 2020), the port of Algiers remains a congested port and congestion surcharges are applied regularly by shipping lines. Delays are common and dwell time remains high. Several critical factors adversely impact also on the Lagos port inefficiency. The challenges identified include transport infrastructure deficits, services and facilities deficiencies of government agencies, and deficiencies in services of the private sector operators at the port. **The port of Gabès** (as well as Radès) seems ready to play a key role as a gateway for the for the TSR corridor but would need investment in a container terminal. In addition to the well-known security issues in the Sahel region, the problems at the different **border crossings** of the TSR corridor

are due to an excessively rigorous and narrow interpretation of the regulations which causes problems and delays. No ICT use for exchange of information and no proper risk management exist at the border posts. The fact also that Algeria is not part of the International Transport of Goods (TIR) convention – it suspended the convention application in 1991 – does not help.

Dry ports and inland container depots are developing slowly in the TSR countries. Several inland container depots are under private management in Chad, Niger, and Mali. The private operators invested also in the construction and development of closed, secured warehouses, as well as in bonded warehouses. The initiatives are, however, not implemented in all TSR countries.

Overall **environmental sustainability** aspects are not given appropriate attention. Policies to promote economic growth should reflect the depletion over time of the non renewable resources, as well as the impact of economic activity on the environment with special emphasis on climate change—and the need to protect biodiversity and reduce greenhouse gas emissions. Environmentally sustainable policies are essential for economic sustainable growth in general and for limiting externalities such as air pollution, greenhouse gas emissions and climate change.

Increased transport and trade activities requires measures to reduce externalities and heightens the need to shift to sustainable patterns. Integrating sustainable criteria into corridor infrastructure development and operations should therefore be considered to support efficient long-term sustainable and inclusive development. Recent accelerated growth in technological advances and innovations suggests a significant potential for such technologies to support sustainability-building efforts.

The TSR corridor countries economic outlook, trade exchange, and logistics performance

The study reviewed the **economic outlook** of the member countries of the TSR corridor, based on available data from different international organizations and specialized agencies without analyzing or predicting the devastating effects of the Covid-19. According to the IMF Africa Economic Outlook (2022), Sub-Saharan Africa GDP contracted by 2.1% in 2020 and grew by a modest 3.7% in 2021. The outlook for 2022 shows an increase by 0.1% only to 3.8%¹. The economic data considered for the review was the one prior to 2020, the year when the Covid-19 pandemic erupted with consequent negative impacts on the global and national economies. The data prior to 2020 is also more significant for the trade of the TSR countries, and among themselves, as well as for their logistics performance.

Together Nigeria and Algeria represent 77% of the total population and 88% of the total GDP of the TSR corridor countries. The TSR corridor countries represent some 27% of the total GDP of Africa and 25% of its population. Oil and gas represent about 95% of Algeria's export receipts. The Nigerian economy is one of the largest in Africa, and since the late 1960s it has been based primarily on the **oil industry**.

The analytical work highlighted the differences of the economies of the six TSR countries, among which three are low-income landlocked countries and two are middle-income ones. Despite the economic differences, the countries present however some similarities in their respective **logistics performance index** (LPI) and main issues and aspects to address to improve their rankings. The improvements could be supported by joint efforts to promote trade and commercialization of the TSR corridor and implement the trade, transport, and transit facilitations measures along the corridor in a structured, efficient, and organized manner.

The existing data and its analysis show that the trade between the TSR countries is on a rather low level. It is estimated that just about 1% of Algeria's total trade is with Africa outside of the Maghreb area. The trade between Niger and the Maghreb area is reported to be approximately 10 heavy trucks per day².

¹ IMF Regional Economic Outlook Sub-Saharan Africa (October 2021).

² Based on available data for the years 2014 to 2017, and 2018 when available. Data from AfDB, World Bank, CIA World Fact Book, and others.

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This number may underestimate the total trade since there is probably some informal trade is not captured by the statistics.

As example of the informal activities across borders, the data collected shows that informal trade between Algeria and Mali is important in supplying northern Mali and allowing regions in the north to benefit from prices lower than if supplies came from the south of the country.

Economically, even without considering the Algerian subsidies on transport and goods, it is understandable that Kidal, and even Gao, gravitate toward Algeria because transit times are between seven and eight days to Algiers as opposed to at least 17 days to Dakar (Senegal) or via the southern road to Abidjan (Côte d'Ivoire) or Tema (Ghana). In addition, the cost of shipping transport is much lower at ports in North Africa than those in West Africa.³ Any project for the development of the TSR road corridor towards an economic corridor and modernizing the border crossings, especially when supported by international development partners, should address the informal trade and the adequate integration of the population benefiting from the related activities into the mainstream regional economic development.

It is not necessarily the volume of trade between the countries that matters, as this will develop over time when the TSR countries respond to the needs of each other as well as to their own domestic economic development along the corridor. What matters at this stage is rather the trade logistics policies and the volume of goods that transits between the TSR countries (going through the countries or some of them) whether the goods are destined to or originating from one of them. What matters is how effectively and efficiently the transport and transit facilitation measures improve all steps and aspects of the supply chain and logistics system, especially in terms of time and cost.

The perspectives and the main products that are potentially marketable between the TSR corridor countries (and to the rest of Africa) were analyzed and discussed in a CLRT study of 2009 and reviewed and updated in the analytical work of the present study.⁴ The main products recognized as advantageously marketable between the TSR countries are those exported by each country in significant quantities over several years between these countries.

The analytical work of the present study highlighted that once the identified non-tariff barriers are addressed through the suggested trade and transport facilitation measures, the trade between the TSR countries will increase. As highlighted also by the CLRT study of 2009, the opportunities for development are in two main areas: (i) *for the sub-Saharan countries*: export of mining, agricultural and food products, and import of manufactured goods, including mechanical products, electricity, chemicals and pharmaceuticals, textiles, construction materials, agri-food; (ii) *for Algeria and Tunisia*: export of manufactured goods, including mechanical products, electricity, chemicals and pharmaceuticals, textiles, construction materials, agri-food, and import of mineral, agricultural and food products, and direct investment in water resources, energy, mining, transport logistics.

Trade and transport facilitation aspects in TSR corridor and TSR diagnostic and performance assessment

The efforts made so far, since the 70s, on the TSR corridor have mainly focused on the road infrastructure side. While these have yielded remarkable achievements in highway construction, there is still a lot to be done on the road missing links, road maintenance policies, funding and sustainability, road safety, speed limits, the port accesses, the dry ports and customs depots, as well as the border crossings/posts.

Regarding transport, transit and trade facilitation, the analytical work of the present study and the available evidence from different documents, as well as the diagnosis they provide, highlighted the low level of importance given to the soft aspects, which results in poor performance of the corridor. The analysis shows that much is still to be done to address issues related to: (i) customs processes, exchange of

³ Algeria–Mali Trade: The Normality of Informality, Sami Bensassi, Anne Brockmeyer, Mathieu Pellerin, Gaël Raballand, Democracy and Economic Development, Economic Research Forum, 2015, <http://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>.

⁴ CLRT (2009).

information, risk management, ICT use; (ii) lack of trade promotion and facilitation; (iii) lack of logistics services and capacity building in these services; (iv) weak trucking industry and transport services; (v) high cost and lengthy time of transport and transit through the supply chain, and ports congestion; (vi) uneven use of national single window platform and processes, and unoptimized and ineffective when they exist. Due to the constraints along the corridor roads and the challenges hampering the overall corridor performance, the transport costs and times are too high by international standards and compared to other African sub-regions and groups of countries even with landlocked ones.

In addition, the TSR corridor lacks harmonization, at the national and regional levels, of procedures and processes in support of corridor performance, particularly: (i) institutional, legal, and regulatory context; (ii) disparity of transboundary issues such as axle loads, vehicle insurance and inspection; (iii) relevant conventions ratification and enforcement; (iv) addressing the landlocked and transit specificities, needs and requirements; (v) use of ICT, data collection, treatment and knowledge-sharing; (vi) overall economic corridor coordination and management, monitoring and evaluation, performance.

Well-performing trade and transport corridors can have significant impacts, reducing trade costs and time and enhancing the competitiveness of communities, cities, regions, and countries, especially where the countries are landlocked.

6 - Need for improving the TSR corridor performance

The political will of the governments of the TSR corridor and their commitment are reflected in the massive investments in the road infrastructure so far and their willingness to implement additional needed actions to achieve regional economic integration. The report details the most critical improvements needed and issues to be addressed – in sequences and phases – to move gradually from road corridor to transport corridor, to logistics corridor, to economic development corridor, to regional economic corridor, and, finally, regional economic integration.

The efforts for improvements require significant resources from all development partners, with a focus on promoting unfettered, efficient, and cost-effective access to the sea for the landlocked countries, improvement of transport infrastructure and services, completing missing links in the corridor, reducing costs and non-tariff barriers through simplification and standardization of regulations and procedures, and enhancing of digital development. With the needed sustainable improvements, the TSR corridor should also aim at becoming competitive for the landlocked countries, particularly Mali and Chad, which both have alternative routes to the sea.

Once the measures (hard and soft) to address the constraints of the trade and transport facilitation and the performance of the logistics and the supply chain are put in place and operational, including as part of the African Continental Free Trade Area (AfCFTA) agreement, trade will develop and increase between the TSR corridor countries and from the countries to the rest of Africa. The performance of the corridor and its competitiveness can trigger greater inter-continental trade and will position the TSR corridor as a main trade link between northern, central, and western Africa.

Evolution from road corridor to economic corridor, to regional economic integration

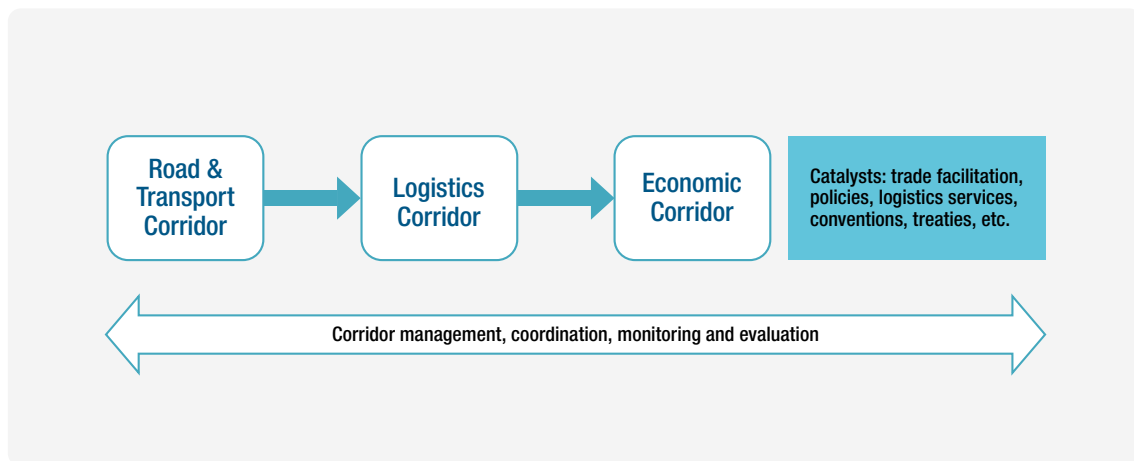
The TSR corridor governments are aiming for sub-regional and regional economic integration. This objective lines up with the goals of the AU and the support strategies of the international development partners and UN agencies (such as UNCTAD) and international financial institutions (IFIs, such as ISDB which puts regional integration as a priority focus). The AfDB has also made regional economic integration one of the focus areas of its overarching twin objectives of the ten-year strategy (2013-2022), which are the achievement of inclusive growth and the transition to green growth.

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The hard and soft improvements needed are complex, multi-sector, multi-dimension, and multi-country (at national and regional levels). For proper implementation they need to be planned, sequenced, and prioritized for effective and efficient performance of the corridor. They also involve several government levels and agencies as well as private sector. Adequate coordination is needed together with tight monitoring, evaluation and knowledge and best practice sharing. This requires a proper management and coordination scheme that integrates all aspects with a holistic vision and adequate planning, coordination of multiple actors, disciplines, sectors, and cross-cutting dimensions, and supported by appropriate monitoring and evaluation mechanisms.

The suggestions of TSR improvements and recommendations given under the present study, including a corridor management mechanism, are intended to move the TSR gradually from road corridor to transport, logistics and economic corridor as shown below.

STAGES OF DEVELOPMENT OF AN ECONOMIC CORRIDOR



Improvements to TSR corridor for evolution, performance and competitiveness

To maximize gains from a region's potential, it is important that the countries ensure adequate infrastructure connectivity. Among various connecting infrastructure, transport plays an important role in poverty reduction, inclusive growth, trade, and economic integration. Connectivity entails hard physical infrastructure within and across countries. The development and functionality of such hard infrastructure can only be ensured if it is supported by proper soft infrastructure, namely a framework consisting of effective policies, strategies, regulations, governance, institutions, systems, procedures, and knowledge.

For most countries the lack, or inadequacy of implementation mechanisms jeopardizes the development of seamless transit systems. Although the financing needs for soft infrastructure are much lower than those of hard, they are nonetheless complex, and require more time to develop and massive regional and national efforts of efficient planning, coordination, and management.

For its performance and competitiveness, the TSR corridor would require hard infrastructure (missing links, border crossings, etc.) and soft measures (regulations, policies, technological instruments, ICT, harmonization, and simplification of exchange of information, conventions, institutional, capacity building, etc.), and to put in place effective and efficient regional transit systems on which landlocked countries depend for trade with and through their neighbors, and to facilitate the movement of goods and vehicles.

Facilitating trade flows between countries in the same subregion requires not only an adequate transport infrastructure, but also competitive and reliable transport and transit services. However, both requirements can be met effectively only to the extent allowed by the legal framework governing their opera-

tions. Future regional economic integration can be achieved not only by the harmonization of national policies, but also by the preparation, ratification, and implementation of multilateral legal instruments. These instruments provide the framework needed to underpin the sustainable development of trade flows, which support economic growth and employment generation.

The required improvements for the TSR corridor performance and competitiveness are complex and they need to be adequately planned, sequenced, and prioritized for proper and efficient implementation. They also involve several levels of government and agencies as well as the private sector. Close coordination and proper management scheme are needed together with tight monitoring, evaluation and knowledge and sharing of best practices.

Potential benefits from improved transport connectivity, transit, trade, and trade facilitation

Major benefits will result from a well-performing and competitive TSR economic corridor, especially on the transit regime, the cross-border supply chains and trade facilitation, the inclusiveness, equity, and sustainability, and on improving trade and competitiveness through reducing cost and time of travel. International experience shows that improving connectivity (nationally, regionally, and globally) tends to have a positive impact on trade competitiveness and, ultimately, job creation and income growth. The drop in the cost of transport will improve opportunities for trade and the movement of people.

7 - Corridor management schemes: international experience and practices

Based on international experience and best practices in trade and transport corridor management and using objective selection criteria as detailed in the report, this study shows what model of coordination and management scheme could be adapted and adopted for the TSR corridor.

International experience for transport, transit, and trade corridor management schemes

Several international organizations place emphasis on the facilitation of cross-country and inter-state trade along corridors. They particularly focus on identifying impediments to the efficient movement of traffic and seek to promote appropriate strategies for minimizing hurdles to such movement. This objective is also consistent with the SDGs, the Almaty Program of Action (2003) and the Vienna Program of Action (VPoA) for Landlocked Developing Countries for the Decade 2014-2024. Promoting the development of efficient and well-performing corridors can also be an effective mechanism for delivering on the SDGs and for reaping the full potential of the AfCFTA, which presents a major opportunity for the continent to boost intra-African trade and economic diversification, accelerate growth and value chain development as well as improve Africa's position in the global marketplace.

One of the contributory factors to the problems faced along corridors is the absence of appropriate institutions able to coordinate, proactively interventions to remove obstacles to movement. Corridors with management institutions have sometimes shown significant improvements in their operations. Institutions have been instrumental in facilitating dialogue between corridor stakeholders and harmonizing procedures and documentation used in transport and transit operations, resulting in reduced transit time and cost.

A corridor organization also provides a point of focus for stakeholders' efforts and a forum for identifying any major constraints on corridor performance. It also provides a focus for the lending programs of multinational organizations. While there have been variations in approach to the analysis of international trade corridors, a limited number of models have been applied.

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The study reviewed some international experience and best practices for transport and trade corridor management, including the sustainable financing of the corridor management structure. The experience presented encompasses different regions and sub-regions, different models of management and different types of support. The review included several examples of corridors in Africa, their management models, the constraints they faced, and lessons learned. The international regional experience included: the Trans-European Transport Network (TEN-T network) in Europe; the Greater Mekong Sub-region (GMS), the Association of South-East Asian Nations (ASEAN); the South Asian Association for Regional Cooperation (SAARC); the Central Asian Regional Economic Cooperation Program (CAREC); Economic Community for West African States (ECOWAS).

The examples of corridor management schemes covered under the study included: TRACECA (Transport Corridor Europe-Caucasus-Asia), Can-Mex (Canada to Mexico) corridors, Central American Common Market (SIECA), East Africa Northern Corridor, Southern Africa Maputo Corridor, Trans-Kalahari Corridor, Dar es Salaam Corridor, Lagos-Abidjan Corridor.

Lessons learned from cases of corridor development and management

The review shows that the most successful multilateral corridor development programs have taken place within customs unions since these simplify the border-crossing procedures. In the case of the TEN-T network in the EU, the formalities for border-crossing were addressed as part of the technical annexes to the treaty. It was also highlighted that in general three aspects should be examined. The first concerns the characteristics of an international corridor and the parameters that define its performance. The second relates to the mechanisms available for improving corridor performance, especially at the border crossings. The third considers management techniques available for coordinating the development of corridors. International experience in trade and transport corridor development provides policymakers and development practitioners a wide range of lessons including those for treatment of transit, and a series of practical lessons that will help identify and address priority areas for policy reform and trade and transport facilitation programs.

Criteria for selecting and adapting a management model for the TSR corridor

The recommendations made in this study for improvements of the TSR corridor are linked to each other. They need to be implemented in the proposed sequences to have maximum impact. Unless there is an institutional arrangement that oversees their implementation, such coordinated plan of action is unlikely to happen. Experience in different trade corridors shows that a proper management mechanism can effectively bring the needed coordination. It can ensure that the trade facilitation measures implemented in one country are supported by comparable measures in other countries in the corridor. It can also ensure that the actions within any country are implemented under a holistic cooperation framework. The coordination that such a mechanism/scheme can bring is particularly important for transport infrastructure, where the investments of one country depend entirely for their success on the presence of comparable infrastructure in the neighboring countries along the corridor.

The criteria and guiding principles for selecting and adapting a model for a trade and transport corridor management scheme should cover: (i) what are the objectives of the corridor development; (ii) what will be the activities of a corridor management system; (iii) what type and form of organization of a management system; (iv) what will be the sustainable funding of the management scheme; (v) what is the political will and commitment of countries, and the operational readiness of a management scheme, i.e. how fast it can be operational.

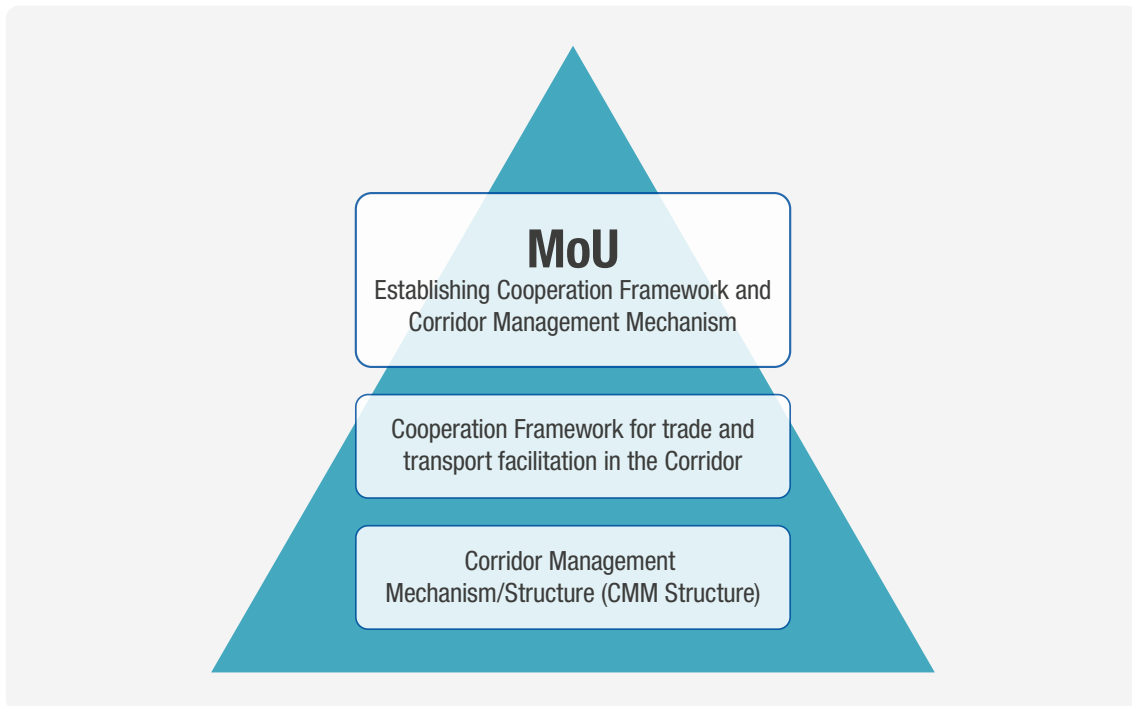
8 - Recommendation for the TSR corridor management scheme and functioning

Following the review of international experience and best practice in trade, transport and transit corridor management schemes and drawing upon insights from the analytical work carried out, the study makes a proposal for a regional management scheme to be adopted for the TSR corridor, its structure, composition, responsibilities, and financial sustainability. The structure would ensure coordination of the trade and transport and transit facilitation measures, support their effective implementation and overall smooth operation of the corridor, carry out management and commercialization of the corridor as well as performance monitoring, training, and knowledge sharing.

Proposed model of management scheme for the TSR corridor

Examining different cases and best practices from experiences elsewhere and applying the set of criteria and guiding principles on how and what model to select for the TSR corridor, allowed to propose a management scheme for the TSR corridor. The proposal for legal and institutional arrangements for the management of the TSR corridor is summarized in the following figure.

LEGAL AND INSTITUTIONAL ARRANGEMENTS



The study proposes a three-component arrangement: (i) a Memorandum of Understanding (MoU) between the TSR corridor countries establishing a Cooperation Framework and a Corridor Management Structure/Mechanism; (ii) a Cooperation Framework (CF) among the TSR corridor countries for trade and transport facilitation and other relevant aspects; (iii) a formal institutional Corridor Management Mechanism/Structure. These three components once adopted and enforced by the TSR corridor countries would support the evolution towards an economic corridor and lay the ground for the ultimate objective of regional integration.

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The TSR corridor countries recognize the crucial importance of efficient, reliable, and safe transport infrastructure and services to regional integration and the sustainable economic and social development of the countries. The analytical work that led to the suggested legal and institutional governance and arrangements for the TSR Corridor is outlined in the report. The details and proposed aspects to be covered under the MoU, CF and CMM structure are included in Annexes 4, 5, and 6 of the report.

The Memorandum of Understanding (MoU)

The proposed MoU is without prejudice to the competence of the signing ministries delegated by their respective governments of the TSR countries. For the sake of flexibility, all cooperation activities in the context of the MoU are based on the voluntary commitment of the parties and other stakeholders involved, and the MoU remains in force unless terminated in writing by any of the parties.

The Cooperation Framework (CF)

The strategic cooperation framework would outline the long-term common targets/strategy for member countries and their development partners, particularly to increase coordination and effectiveness of facilitation measures, and to avoid inconsistency in facilitation efforts and conflict between different existing facilitation agreements or measures. The framework would constitute an effective legal regime and give the long-term common targets for essential and critical issues for transit transport facilitation, particularly: road transport permits & traffic rights; visas for professional drivers & crew; temporary importation of road vehicles; road safety; insurance of vehicles; vehicle weights and dimensions; vehicle registration and inspection certificates.

To provide a focus for collaborative efforts, cooperation and exchange of experiences among the TSR corridor member countries, some of the key modalities suggested are: (i) building an effective legal regime especially for accession to selected international facilitation conventions; (ii) sub-regional and bilateral agreements; (iii) wider applications of new technologies (including green technologies); (iv) development of professional training; (v) establishment/strengthening of national facilitation coordination mechanisms; (vi) promotion of joint control at modernized border crossings; (vii) promotion of economic zones at border crossings, dry ports and logistics centers; (viii) further application of facilitation tools.

For the TSR Corridor countries, the establishment of efficient transit transport systems through cross-border corridor arrangement schemes can provide genuine partnerships between landlocked and transit countries based on mutual benefits deriving from the specific actions that the countries major stakeholders may agree to undertake in the VPoA.

The framework encourages the landlocked and transit countries to join relevant international conventions, particularly the TIR Convention, the Harmonization Convention, and the Revised Kyoto Convention given their potential benefits, as well as agreements with a view to promote the harmonization, simplification and standardization of rules, formalities, and documentation transport. It is a platform for effective information exchange, including information protection issues, limitations on the use of information and provides for harmonization of information requirements in line with international standards.

As an important benefit, the cooperation framework will be the occasion for strategies and experience sharing on promoting customs cooperation. Customs administrations would modernize their customs transit regimes, based on the World Customs Organization (WCO) Transit Guidelines to facilitate movement, and support economic development of the landlocked countries. They would enhance cooperation with other border regulatory agencies to effectively implement the World Trade Organization (WTO) Trade Facilitation Agreement (TFA) and would cooperate with each other to ensure smooth movement of transit goods, including data exchange of transit goods. All six TSR corridor countries have signed the AfCFTA agreement, which should accelerate harmonization of transit agreements, transport regulatory requirements, standards, systems and customs procedures guided by the objectives of the AfCFTA.

The Corridor Management Mechanism/Structure (CMM)

Based on the international experience review, the selection criteria, and guiding principles, the institutional setup suggested for the management mechanism/structure of the TSR corridor is a two-tier arrangement comprising an Oversight Committee (or Steering Committee) and a Permanent Executive Secretariat. The oversight committee would include high-level representatives of ministries or national agencies responsible for transport, public works, trade, and customs. Representatives of port authorities, transport regulation and road safety agencies, as well as the private sector (trucking industry, logistics operators, freight forwarders) could be added as the TSR governments may agree on.

The role of the Oversight Committee would be limited to helping address and solve any issues and policies that may hamper trade, logistics, transit, and transport facilitation. The Oversight Committee may elect a smaller group to act on its behalf. The committee can also agree with the Permanent Executive Secretariat to establish such working groups as may be required to address specific issues. The oversight committee would meet once a year, rotating through each of the member countries. The corridor executive secretariat would organize the meetings of the committee.

The Oversight Committee would be supported by a Permanent Executive Secretariat, i.e. the main coordinating, managing and technical body of the corridor management structure. The Secretariat would at a minimum have the following positions: (i) a Secretary General; (ii) a transport and trade facilitation expert; (iii) an administrative assistant. The Secretary General may, in consultation with the Oversight Committee, appoint such persons as members of the secretariat as may be required for the proper discharge of the secretariat's functions. Any member country may, to support the work of the secretariat, second a person to serve as a full- or part-time in the secretariat, subject to such conditions as the Secretary General may determine in consultation with the Oversight Committee. Members are encouraged to make in-kind contributions to the initial setup of the Permanent Secretariat, such as equipment and travel costs.

The scheme for discharging responsibilities of the proposed corridor management mechanism includes, and may not be limited to: (i) monitoring performance of transport operation along the corridor, and the concerned national, regional and global supply chains; (ii) disseminating results of monitoring through conferences, publications, and media at all levels; (iii) informing and engaging corridor member state authorities and other relevant stakeholders; (iv) supporting common/standard procedures and regulations development and implementation; (v) supporting capacity building initiatives of key institutions engaged in trade and transport operations (customs, clearing and forwarding agents, insurance companies, transport infrastructure management agencies, transport, and logistics operators, etc.); (vi) networking with international, regional, and local partners concerned with trade and transport corridor management, and exchange of experience.

The main functions of the Executive Secretariat would cover such areas as: organizing oversight committee's meetings and stakeholder workshops, finalizing meetings minutes and reports; supervising and providing technical advice to the advisory/working groups; liaising with and participating in development of policies, regulations, standards, safety, risk management, harmonization mechanisms; promoting and marketing the corridor through dissemination of information, publication of a newsletter and a website, participation in exhibitions and trade fairs and by undertaking marketing visits; establishing productive working relationships with other regional corridors and institutions, and international organizations.

As supported by the model selecting criteria and guiding principles, to expedite establishing the proposed management mechanism for the TSR corridor, and for the sake of operational efficiency, it is suggested to build on the existing CLRT. The member countries of the TSR corridor may want to amend the organic statutes of the CLRT to include the Oversight Committee and the Executive Permanent Secretariat with their prerogatives, roles, responsibilities, and composition as described above.

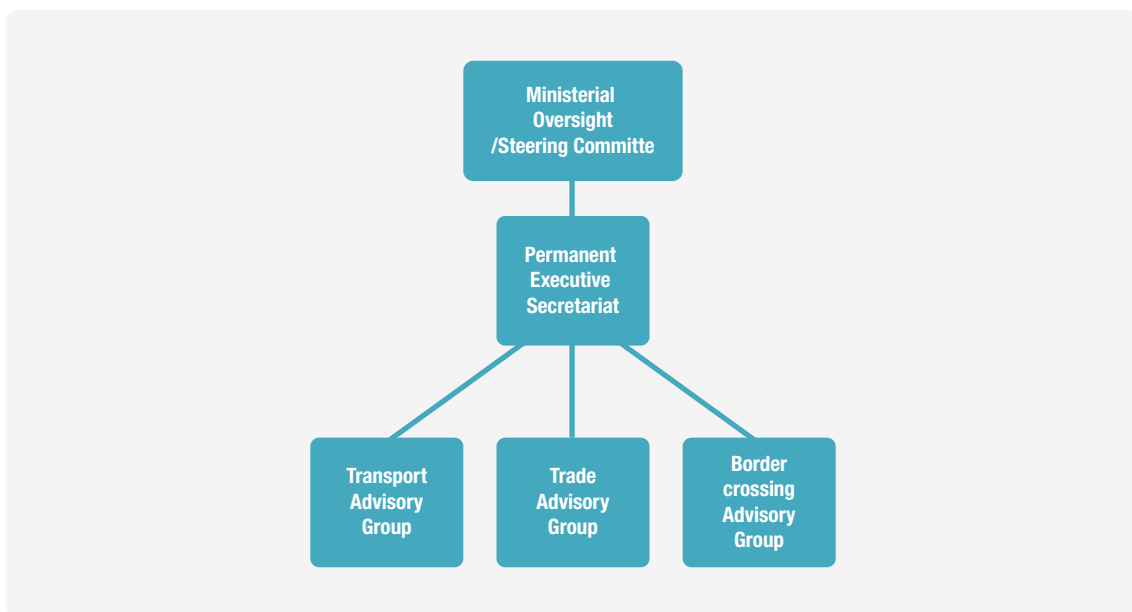
It is suggested to rename the CLRT and give it a name that would relate to the economic corridor vision, the wider approach of trade, logistics, transport, and transit facilitation corridor as well as the function of corridor coordination and management. The new suggested name of the structure could

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be “Trans-Saharan Economic Corridor Coordination Committee” (Comité de Liaison et Coordination du Corridor Economique Transsaharien”, CLCCET). The existing legal statutes of the CLRT would be revised and amended. These have not been ratified by the countries concerned; they were simply approved by the representative of each of the member countries on the Committee.

This would be a good occasion and opportunity to revise the statutes, amend and have them officially ratified by the TSR corridor member countries. It would also be the occasion to address the funding (on a sustainable basis) of the corridor management mechanism. The existing CLRT secretariat (which would be kept, to become the Executive Permanent Secretariat) would also need to be strengthened in terms of composition, staffing, competencies, and equipment (ICT) as suggested above, as well as sustainable financial support. The proposed corridor management structure is summarized in the figure below.

CORRIDOR MANAGEMENT MECHANISM (CMM)*



*Amend existing CLRT organic statutes⁵ to setup the CMM



Funding of the TSR corridor management structure and its costs

The proposed corridor structure (especially the Permanent Secretariat and its activities) needs reliable sources of income to be able to finance its functions. The activities will likely be reflected in action plans prepared by the governments with contribution of the TSR management structure. The plans generally aim at enhancing the performance of all players in the logistical chain. Implementation of the action

⁵ Available at: <http://www.clrtafrique.com/index.php>.

plans rests with the governments or the business community (shippers, transporters, clearing agencies, port authority, etc.) should they see the benefits of making contribution. Two critical aspects should be properly addressed: the overall sustainability of the corridor management scheme, and the financial sustainability, without which the scheme collapses. Any corridor management requires stable sources of funding to achieve its goals. These aspects would be laid out in the legal instrument defining the strategic cooperation framework and statutes of the corridor management structure.

Typically, the main costs associated with establishing corridor management structure would be secretariat office accommodation, salaries, and benefits of secretariat staff; information dissemination; corridor performance monitoring; studies and technical proposals to enhance corridor performance; and oversight committee and stakeholder coordination meetings. Funding arrangements could initially include membership (countries, autonomous agencies, etc.) fees, contributions by governments, traffic-based usage fees (if feasible initially), and donor support (through trade and transport facilitation projects and/or programs). Experience shows that in the first instance membership contributions and/or donor funding are necessary to establish and support a corridor management structure.

9 - The way forward: proposed regional program and action plan for support by TSR countries and development partners

The present study report gives a proposal for regional program/projects to be prepared and implemented in phases with the technical and financial assistance of international development partners (such as IsDB, UNCTAD, etc.). This would also include the arrangements for overall monitoring and evaluation of the program, its achievements, results and impacts as well as the progress towards regional economic integration.

Experience has shown, especially in Africa region, that regional projects involving several countries, several sectors, investments and complex policies, regulations and reforms are better identified, prepared, and implemented when they are supported (TA and financing) by international development organizations and IFIs. It is therefore suggested that the program/projects proposed below, and which involve hard and soft activities be identified, prepared, and implemented with the financial and technical support of international partners. The following provides the broad outlines of the proposed operation which, if agreed between the governments and the international partners (UNCTAD, IsDB, etc.) would be prepared as a “bankable operation” and according to the project cycle steps, rules and guidelines. The overall objective of the proposed TSR regional economic corridor development program/project is to promote trade within the subregion and between the subregion and the rest of Africa and the world, commercialize the corridor, support it to evolve gradually towards an economic corridor, and support economic development along the corridor. The program would be implemented in two or three phases.

The objective of a **first phase** could be to lay the ground for increased trade within the subregion and between the subregion and the rest of the world. The **second and eventually a third** phase would follow with sets of investments and policies. The objectives of this second phase (trigger and promote trade within the subregion and between the subregion and the rest of Africa and the world, and support economic development along the corridor) will be achieved by integrating customs systems and harmonizing customs regulations, improving infrastructure at border crossings, and modernizing them, joining and ratifying relevant conventions, and rehabilitating and reconstructing key road missing links as well as logistics systems and transport services.

The beneficiaries of the project include people and entities that directly benefit from the infrastructure financed by the project, as well as private and public participants in the trading process. The private sector participants include exporters and importers, and the providers of transport and logistics services (e.g. trucking companies, warehousing, customs brokers, and freight forwarders). The public sector participants include customs agencies and others requiring border inspection, highways, transport, and

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ports agencies. Travelers and tourism would also benefit. Improved facilities and procedures will reduce the transport cost, shorten their waiting time, and improve their travelling conditions.

Proposed program/projects phases and components: **the first phase** of the program would be prepared relatively quickly and implemented over a short period of time (two years), and would consist of:

- setting up the scheme for TSR corridor management and the institutional arrangements for program preparation and implementation (including MoU, CF, and CMM);
- setting up the regional strategic trade and transport facilitation improvements framework;
- trade promotion and corridor commercialization strategy and plan (including marketing plan), trigger intercontinental trade and integration into the global supply chain;
- support for ratifying conventions, agreements (TIR and other relevant conventions) and trigger position of the TSR corridor as a trade link between north, central and western Africa;
- preparation of next phase of the program;
- program implementation and monitoring, with clear performance indicators.

The second phase of the program/project, over a longer period (five years) would comprise four components consisting of:

Follow up of soft measures, i.e., institutional arrangements and regional trade framework improvements

- continuous support to TSR Corridor management scheme;
- modernization and harmonization of customs and related services, ICTs;
- regulation and competitiveness of logistics and transport services; and
- Consultations between governments and businesses to support trade development among members countries.

Hard Infrastructure improvements

- completing missing highway links, rehabilitation, maintenance of road corridors, addressing road safety issues, improving physical and digital connectivity (road and ICT) for economic and social development along the TSR corridor, developing required infrastructure including logistics centers/parks and dry ports, addressing ports issues, accesses, and efficiency;
- connecting TSR countries production centers with markets and integrating local production centers into African and global supply chains including through development of required trade and logistics infrastructure and services along the corridors;
- supporting export of main products that have been identified as potentially marketable between the TSR countries and to the rest of Africa .
- upgrading and modernizing border crossings infrastructure and facilities;
- promoting ICT connectivity and green technologies;
- adopting environmentally sustainable policies essential for long-term, inclusive development;
- supporting exchange of information about import, export and transit processes and procedures.

Preparation of potential follow-up investments and national development projects

- technical studies and environmental and social impact assessments of the major investments proposed for follow-up;
- trade development between the TSR corridor countries and between the countries and the rest of Africa and the world;
- prepare national economic and social development projects.
- Program implementation and monitoring and evaluation
- management activities associated with program implementation;
- establishing and implementing a comprehensive monitoring and evaluation (M&E) system with clear performance indicators (such as: traffic volumes, transport cost, turn-around time of trucks, port dwell time, border post transit times, variation of all these times);
- training and capacity building of concerned government agencies and entities.

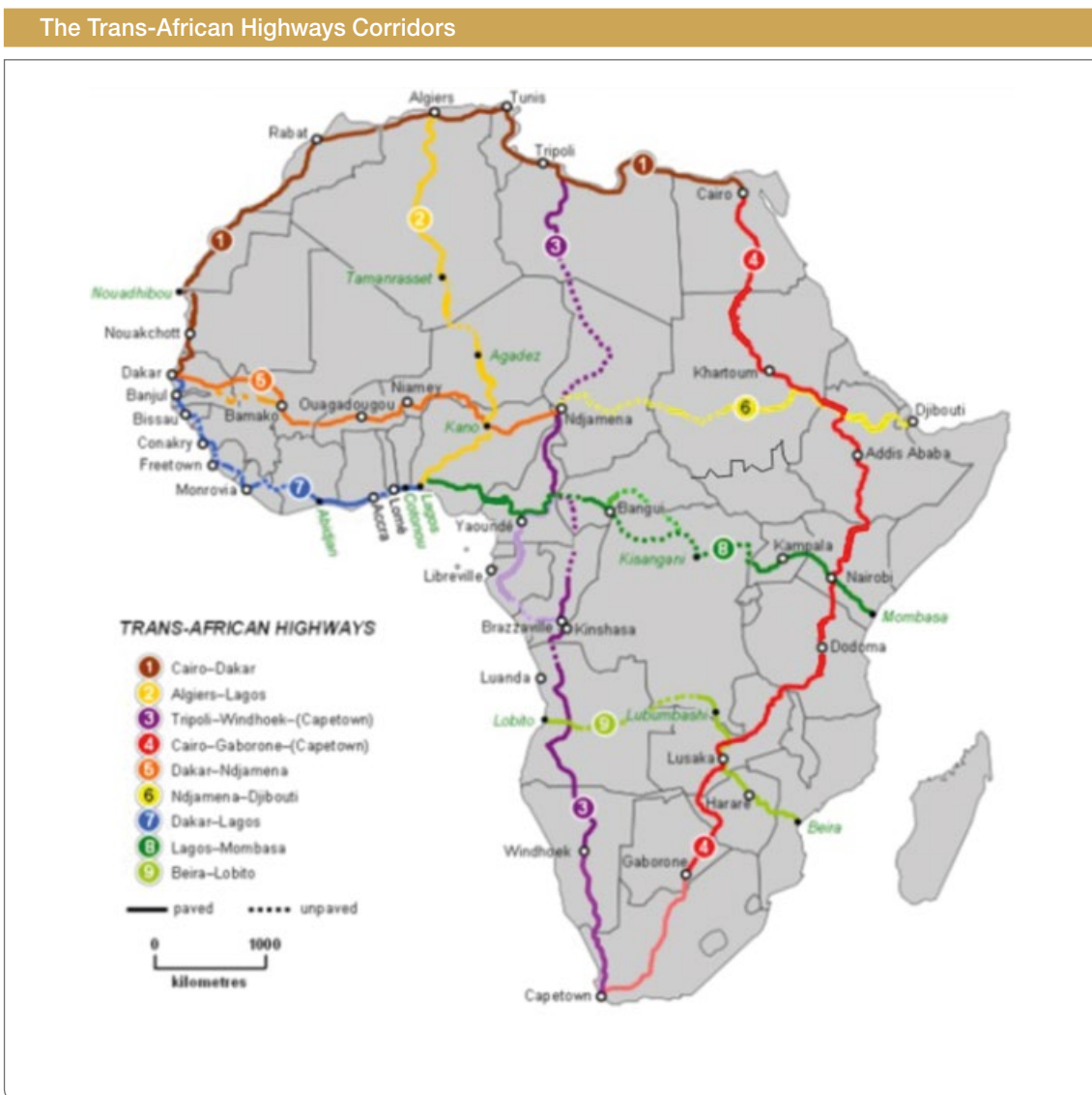
INTRODUCTION



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1 - Context and background

The Trans Saharan Road Corridor (TSR) is one of the nine main Trans-African Highways (TAH) corridors being developed by the United Nations Economic Commission for Africa (UNECA), the African Union (AU) and the African Development Bank (AfDB) with the support of other regional and international communities and development institutions such as the Islamic Development Bank (IsDB), which is financing the present study). While the total length of the core axes of the TAH is estimated at some 60,000 km, this number is more than twice as high when it includes the road branches that connect the different African countries to the corridors core axes crossing these countries.



Source: AfDB/UNECA (2003)

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The concept, as originally formulated in the early 1970s, aims at the establishment of a network of all-weather roads of good quality, which would provide as direct routes as possible between the capitals of the continent, contributing to the political, economic, and social integration and cohesion of Africa and ensuring road transport facilities between important areas of production and consumption. The overall objective is to promote trade and alleviate poverty in Africa through highway infrastructure development and the management of road-based trade corridors.

The TSR is one of the oldest transnational road corridors in Africa and one of the most complete, having been proposed in 1962, with construction of sections in the Sahara starting in the 1970s. The TSR Corridor links Algeria, Chad, Mali, Niger, Nigeria and Tunisia. The 4,500 km long North-South backbone (main road) of the corridor connects the ports of Algiers and Lagos through Algeria, Niger and Nigeria. An additional 4,600 km of linked highways (feeders) to Tunisia, Mali, Niamey (in Niger) and Chad are considered an integral part of the Trans-Saharan Road Corridor. Some 80% of the TSR corridor is paved (asphalted). The Tunisia branch connects to the ports of Tunis and Gabès.

On the institutional and management level, the Trans-African Highway Bureau, established in the 1970s for the management of the TAH, was dismantled in the 1980s and the efforts made in the early 1990s to re-establish it failed for lack of support among member states. Discussions regarding technical standards and other aspects were carried out within regional economic communities (RECs) although individual countries tend to unilaterally decide on the timing and extent to apply or adopt those standards.

Regarding the trade, transit and transport facilitation, several sub-regional agreements in different areas related to the TAH network and its functioning have been prepared, but their application varies considerably from area to area. While most purely technical issues have been both accepted and introduced in some subregions, agreements pertaining to some other aspects such as transit traffic and transport are less common.

2 - Study objective

The present study is part of the technical assistance project (TA project), funded by the IsDB and implemented by UNCTAD, which aims to promote the commercialization of the TSR corridor by establishing a relevant management mechanism. The goal is to establish such a mechanism to ensure effective coordination and collaboration among TSR stakeholders, including users and service providers. The ultimate objective of the TA project is to promote trade, improve the reliability and efficiency of transport, minimize delays, and transit times, and reduce transportation costs, which will support transforming the road network into an economic development corridor and lay the groundwork for future regional economic integration.

In line with the overall goals of the TA project and as one of the first steps, the present study concerns particularly the best way to establish an adequate regional transit corridor management mechanism for TSR commercialization, and the way forward to implement the recommendations.

3 - Methodology for conducting the study

Key aspects for proceeding

Given the Covid-19, context, the analytical work was based on remote exchange and discussions particularly with the Secretary General of the Committee of the Trans-Saharan Road corridor (CLRT, Comité de Liaison de la Route Transsaharienne), and on existing documents, data, and reports by different international and regional organizations and by the CLRT. A “desk-review based” TTFA was also carried out for each of the TSR corridor countries This supported the analytical work and the consequent conclusions

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and recommendations for the corridor management scheme, for improving the corridor performance and transforming it to trade and economic development corridor for the future regional economic integrations.

A first workshop/webinar to disseminate the results of the study and consult with CLRT stakeholders was conducted online in December 2020. Other high-level in-person meetings or webinars could pave the way for next steps.

Conceptual framework

The data, statistics and information covered for the analytical work under the study concern hard and soft aspects including: (i) roads, ports, dry ports, logistics centers and border crossing infrastructure, and their operation, maintenance, safety, and sustainability; (ii) transport services, facilitation and logistics, time and cost of transport, transit issues, harmonization, and policies; (iii) trade and facilitation, customs, procedures, conventions and agreements.

International experience and studies and regional work carried out so far emphasize the importance, especially for landlocked developing countries, of trade facilitation and development, connection to the global economy, regional connectivity and integration, well-functioning infrastructure, appropriate reforms and institutional frameworks, and effective and harmonized regulations and procedures. This approach also supports foreign direct investment (FDI). Trade and investment, coupled with the necessary reforms for better governance, are means for growth, job creation, social cohesion and inclusion, stability, and sustainable development.

To carry out and implement the actions under this vision, there is a need to have the most appropriate, effective, and efficient regional coordination and management scheme with the means (including financial sustainability), capabilities, capacity, and clear mandate to advise and support the member countries in implementing the broad range of actions (hard and soft) and monitor the progress of implementation and the results achieved. The vision aims to support the economic transformation of the concerned countries (and their region) from relatively inward-looking to more globally integrated, promoting growth and employment through the competitiveness and economic and social development that regional economic integration brings.

4 - Report structure

The report is structured, based on the recommendations drawn from detailed analytical work and best practices of international experience, to provide:

- Structure and key provisions that should be part of the proposed intergovernmental agreement
- A documented analysis of the barriers and challenges associated with hard and soft issues of road, port and transit, transport, and trade as well as with logistics operations along the TSR corridor and identification of possible measures/solutions to address the barriers and challenges
- A proposal for the most appropriate regional management mechanism for the TSR corridor
- An identification of the key elements required for an intergovernmental agreement establishing a mechanism for collaboration between the member countries, including the structure and key provisions as well as proposals for the way forward to implement the agreed recommendations.

Chapter II highlights the corridor approach and its relevance for regional, national, and local economic development for any given country and the overall importance of regional economic integration, especially in the case of landlocked developing countries. It also describes in detail the TSR corridor and outlines its “hard and soft” situation, constraints, and challenges.

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Chapter III summarizes the economic outlook for each of the six TSR corridor countries, as well as a review of their trade separately and among them and the perspectives for potential increase. The chapter also gives the logistics performance indicators for the countries and what measures could help improve the performance.

Chapter IV presents the trade and transport facilitation aspects in the TSR corridor to assess its performance. This analytical part of the report looks at the barriers and challenges associated with road and transit transport as well as logistics operations along the TSR corridor, including linkages with the ports, and identifies potential solutions.

Chapter V looks at the need for improving the TSR corridor performance and makes recommendations for hard infrastructure, such as missing links, connectivity, dry ports, border posts, etc., and soft measures, including regulations, policies, technological instruments, ICT, harmonization, and simplification of exchange of information, conventions, institutional, private sector participation, capacity building and mechanisms for monitoring and evaluation of corridor performance and impact evaluation.

Chapter VI provides some best practices from international experience for trade and transport corridor management schemes, as well as the criteria and choice options for selecting and adapting a model for specific situations.

Chapter VII draws the main conclusions of the study and makes recommendations for setting up the most suitable regional management structure for the TSR. This chapter also identifies the main elements required for an intergovernmental agreement, a structure for the corridor management mechanism and a development program to be supported by the governments, financial institutions (such as IsDB) and development partners (like UNCTAD) that would help implement the recommendations.

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1 - Corridor approach and relevance

From a physical perspective, transport corridors are defined as a collection of routes (roads in the case of highway corridors) built from the transport networks of adjoining countries and bounded by gateways. Transport corridors are complex because they are usually multi-modal (as they may involve road, railway, river, maritime mode of transport) and include multiple border crossings.

From an economic perspective, the function of a corridor is to promote internal and external trade by providing more efficient transport and logistics services, and to support connectivity and economic development along the routes. In the case of highway corridors, the primary reason for designating road axes and branches as part of a corridor is to focus attention on improving not only the routes but also the quality of the transport and other logistic services in the corridor. This quality is measured in terms of the transit time, and cost for shipment of goods along the corridor, the reliability of the services in terms of transit time and (in the case of multimodal transport) the flexibility provided in terms of diversity of services offered on multimodal routes. When the national economic development is also targeted, the quality of the corridor may also include the scope and social impact of the economic activity along the routes of the corridor.

International organizations and financial institutions are increasingly supporting the corridor approach for developing countries, convinced that transport corridors are one of the direct ways to support economic integration, which is important for the growth prospects of countries, especially those that are landlocked. In addition, corridors help plan and prioritize the development of infrastructure and to insert missing links, especially in developing regions. Regulatory and other constraints acquire a practical relevance at corridor level which helps design appropriate interventions. Corridors also provide a spatial regional or sub-regional framework to organize cooperation and collaboration between different countries and public and private-sector stakeholders in the provision of trade facilitation and logistics infrastructure and services.

For Africa, cross-border road corridors play a critical role in supporting regional economic integration. They improve transport communications between neighboring countries and provide landlocked countries with access to seaports. The corridors help promote international and intra-regional trade by reducing transport and shipping costs as well as transit time for imports and exports. By removing physical barriers to cross-border trade and expanding markets beyond national boundaries, international road corridors provide a conducive environment for the private sector and for attracting foreign direct investments. In addition to enhancing trade and strengthening regional economic integration, road corridors contribute to poverty reduction by increasing access to markets and social services.

2 - The Trans-Saharan Road Corridor (TSR): history, context, and member countries

History, context, member countries

The TSR corridor is the oldest of the Trans-African Highways (TAH). It was initiated by UNECA in 1962 with a study for the possibilities of improved transport through the Sahara, and a vision to open vast areas of the Sahara and to promote the integration of Africa on a continental scale. Construction of the corridor roads started in the early 70's with the construction of El Golea-In Salah Road in Algeria which

was completed in 1974 and which was extended in 1978 to Tamanrasset. A Trans-Saharan Road Liaison Committee (Comité de liaison de la route transsaharienne, CLRT) was established in 1966 with the objective to study and follow up on construction of the trans-Saharan network roads between the territories of the TSR Member States (Algeria, Chad, Mali, Niger, Nigeria, and Tunisia). The CLRT Committee, originally composed of Algeria, Mali, Niger, and Tunisia, was later joined by Nigeria and Chad.

Presentation of the TSR, status, road condition and traffic

The following data, maps and information are based on the CLRT reports (especially the updates of the 70th CLRT meeting held in Abuja, Nigeria in November 2019) as well as the AfDB/UNECA report of 2003 (review of status of implementation of the Trans-African highway corridors).⁶ The TSR corridor is composed of a road network connecting the six member countries (Algeria, Chad, Mali, Niger, Nigeria and Tunisia) and the ports of Algiers in Algeria and Gabès in Tunisia (both ports on the Mediterranean Sea) and the port of Lagos in Nigeria (in the Gulf of Guinea on the Atlantic Ocean).

The most important today is no longer the physical construction of the road network which is very advanced since a total of almost 10,000 km of roads have been completed, with more than 8,000 km paved, 645 km in progress and 995 km still earthen tracks, mainly in Mali. It is now necessary to build on these assets by commercializing the corridor to increase trade between the countries and achieve seamless connectivity setting up a corridor that supports national and regional economic development and which will lead to future regional economic integration.

The overall physical situation of the TSR corridor and overall data per country (as of 2019) are as follows (summary Table below) and described, in detail, in Tables below and following pages.

Summary situation of roads composing the TSR corridor (as of 2019)				
Country	Total length km	Paved km	In Progress (construction) km	Earth Track km
ALGERIA	3,310	3,070	40	155
MALI	2,180	1,440	-	740
NIGER	1,985	1,710	220	60
TUNISIA	699	699	-	-
NIGERIA	1,131	1,131	-	-
CHAD	570	150	380	40
TOTAL	9,895	8,255	645	995

Source: CLRT (2019)

The main Algiers-Lagos axis (4,600 km)

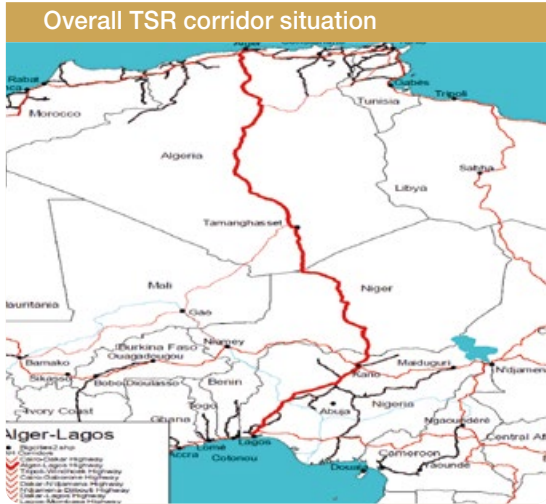
- Algeria has built a paved road from El-Goléa to In Guezam border with Niger via Tamanrasset (1,400 km, including some 10 km still in track condition from In Guezam to Niger border), and 280 km from Silet on the branch to Mali. Some 200 km remain to reach the Malian border at Timiaouine.
- Niger has made great efforts, given its modest resources, and completed the 1,084 km paved road from the border with Algeria to the border with Nigeria, with some 223 km still unpaved. The Zinder Magharia section 113 km is being rehabilitated. Towards the Chadian border from Zinder, the road is

⁶ CLRT (2019) and AfDB/UNECA (2003).

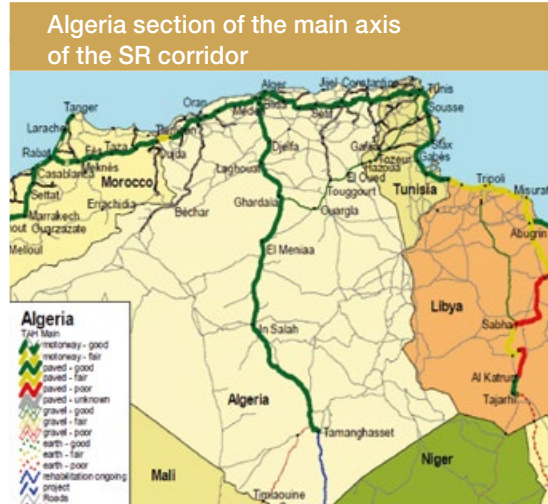
THE TRANS-SAHARAN ROAD CORRIDOR

paved for 645 km including some 55 km at the border still unpaved.

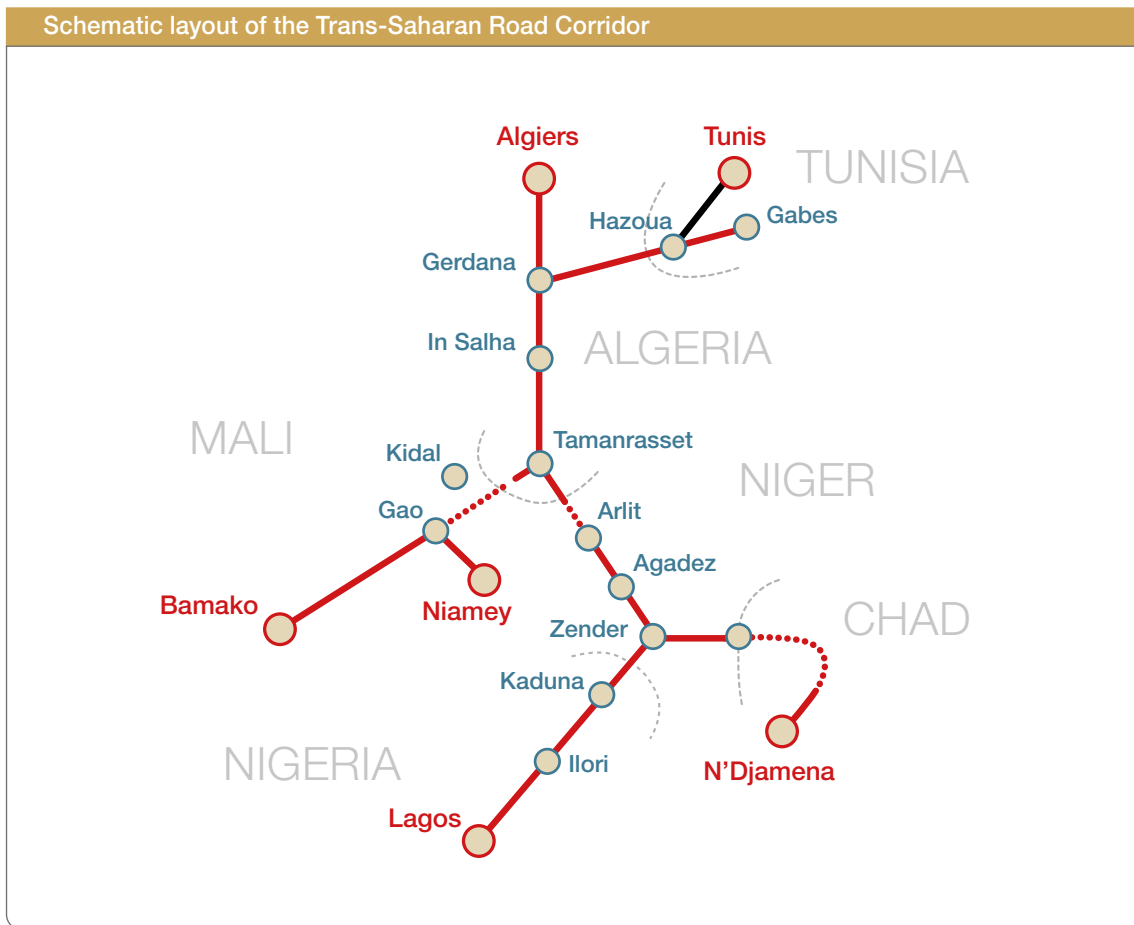
- Nigeria completed the paved link from the border with Niger to Lagos (1,110 km) and upgraded a linear line of more than 540 km to 2x2 lanes



Source: AfDB (2003)



Source: AfDB (2003)



Source: CLRT (2009)

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Algeria sections of the TSR (update of 2019)

Section	Length km	Condition	Paved width meter	Traffic flow		Construction Date	Comments
				Average daily traffic (ADT) Vehicle per day	% Heavy vehicles (per day)		
Paved sections							
Alger- Blida	50	Good	2x2 lanes	125,000	15	80's	
Blida- El Goléa	838						
Blida -Berrouaghia			2x3 lanes	95,000	8	70's	Partial improvement to 2x3 lanes and 2x2 lanes
Berrouaghia-El Goléa			2x2 lanes	35,000	20		
El Goléa- Tam	1,054	Fair	7 m	7,000	30	70's	Being improved
Tam- In Guezzam	415	Good	7 m	130	67	2009	Works completed July 2009
In Guezzam - Border Niger	10	Track condition					Being launched
Total main corridor	2,317						
Tit Silet	85	Good	7 m	220	55	70's	Maintenance and strengthening
Ghardaia- Border Tunisia Unpaved (track)	510	Good	7 m	3,000	40	70's	Improvement and strengthening
Silet- Timiaouine	395	200 km paved	?	18	67	Signaling completed	
TOTAL LENGTH	3,347						

Source: CLRT (2019) as of 2019 (data could be from different previous years, as availability in countries)

Niger section of main axis of the TSR corridor



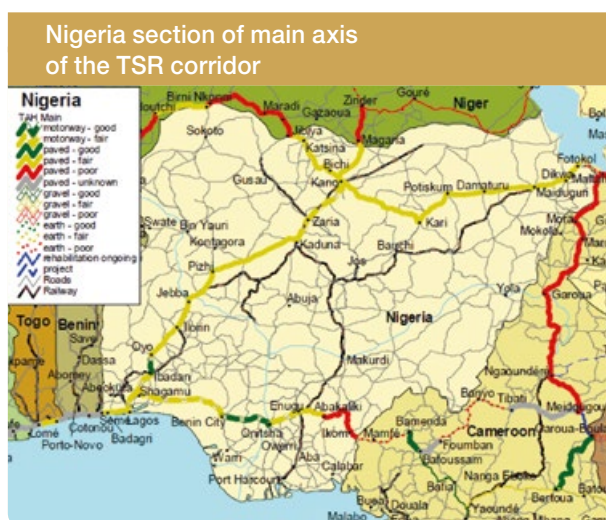
Source: AfDB (2003)

THE TRANS-SAHARAN ROAD CORRIDOR

Niger sections of the TSR (update of 2019)							
Section	Length km	Condition	Paved width meter	Traffic flow		Construction Date	Comments
				Average daily traffic (ADT) Vehicle per day	% Heavy vehicles (per day)		
Zinder-Agades							
Zinder-Sabon Kafi	101	Poor	6 m	169 (2013)	13	1987	
Sabon Kafi-Tanout	42	Poor	6 m	278 (2013)	14	1987	
Tanout-Abellama	207	Poor	6 m	411 (2013)	14	1987	
Abellama- Agadez	76	Poor	6 m	319 (2013)	18	1985	
Agadez- Arlit	242	Poor	6 m	116 (2013)	31	1980	
Zinder-border Nigeria	112	Poor	6 m	633 (2013)	3	1978	
Total	780						
ZINDER_ DIFFA							
Zinder - Mirriah	20	Good	7 m	906 (2013)	10	1982	Being rehabilitated
Mirriah - Guidiguir	80	Poor	6 m	291 (2013)	34	1982	Being rehabilitated
Guidiguir - Gouré	60	Good	7 m	326 (2013)	37	1982	
Gouré - RN 1E PK 1121.8	68	Good	7 m	379 (2013)	17	1974	
RN1E PK 1121- Goudoumaria	43	Good	7 m	183 (2013)	28	1974	
Goudoumaria -Jajiri	36	Good	7 m	170 (2013)	36	1974	Being rehabilitated
Jajiri - Diffa	152	Fair	6 m	276 (2013)	22	1974	
Diffa-N'Guimi	130	Poor	6 m	–	–	1976	Being rehabilitated
Total	589						
NIAMEY_ AYOROU							
Niamey- Tillabéria	112	Good	7 m	1,166 (2013)	38	1973	
Tillabéri- Ayorou	90	Fair	6 m	192 (2013)	13	1997	
Ayorou- Border MALI	37	Good	7 m	209 (2013)	9	2007	Last section 2006
Total	239						
Total paved	1,608						
Unpaved Sections (tracks)							
Assamaka Arlit	223			36 (2006)			Under construction
N'Guigmi Front Tchad	55						Under construction
Total unpaved	278						
TOTAL	1,886						

Source: CLRT (2019). as of 2019 (data could be from different previous years, as availability in countries)

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Source: AfDB (2003)

Nigeria sections of the TSR (update 2019)							
Sections	Length km	Pavement	Carriageway	Traffic (ADT)	% Heavy vehicles per day	Date construction	Comments
Lagos- Ibadan	150	good	3x2 & 2x2	69,544	35	1975	On reconstruction since June 2013 for 48 months 2 sections: Lagos-Shagamu 44 km (3x2) and Shagamu-Ibadan 84 km (2x2)
Ibadan- Ilorin	160		2x2	24	24		Section I Ibadan-Oyao 47,5 km in good condition, Oyo-Ogbomosho 55km under construction. 38.5% Section III: Ogbomosho-Ilorin 58.3km good condition Section III: Ogbomosho-Ilorin 58.3km. In Good condition
Ilorin- Jebba	105		7 m	12,465	22	14.05.09	Under rehabilitation
Jebba-Mokwa	35	fair	7 m	10,784	21		Proposed for dualization through PPP
Mokwa-Kaduna	318	fair	7 m	9,360	21		
Kaduna Kano	230	good	2x2	17,410	20		
Kano-Kazaure	66	Fair	7		15	14.05.09	Need reinforcement
Kazaure- Kogolam	67	Fair	7	5,710	14		Need reinforcement
TOTAL	1,131						

Source: CLRT (2019). as of 2019 (data could be from different previous years, as availability in countries)

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The connecting links of the TSR in Chad, Mali, and Tunisia

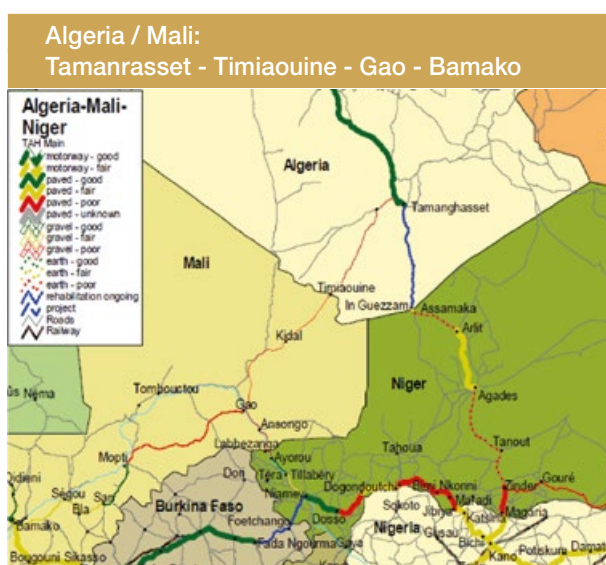
- The road from N'Djamena (Chad) to the border of Niger is 568 km long with a paved section of 152 km from N'Djamena and the rest (416 km) unpaved (earth road). The road is in fair to poor condition except on a 72 km paved section (Massaget-Massakory).
- The total length of the road from Tamanrasset (Algeria) to Bamako (Mali) is 2,226 km. Between Tamanrasset and Gao, the link is missing on a length of approximately 955 km; it is however possible to pass with appropriate vehicles during good weather conditions. The part between Gao and Bamako, 1,191 km, is entirely paved.
- The road from the Tunisian port of Gabès to Ghardia (in Algeria) through the border post of Hazoua between Algeria and Tunisia, is considered as a feeder and has a length of totally 802 km. The road is in a good condition. According to UNECA's definition of the TSR, the Tunisian branch starts in Tunis.

Chad sections of the TSR Corridor (update 2019)

Sections	Length km	Pavement Condition	Paved width (meter)	Traffic (ADT)	% Heavy vehicles ADT	Construction Date	Comments
N'Djaména Djermaya	33	Fair	6 m	745	35	2006	
Djermaya Massaget	47	Poor	6 m	367	38	2000	
Massaget Massakory	72	Good	7 m	147	11	2010	
Total paved	152						
Unpaved sections (track)							
Massakouri-N'Gouri	85			234	11		
N'Gouri Bol	100			139	18		
Bol-Liwa - Rig Rig	138			89	19		IsDB and Chad financing
Rig Rig - Border Niger	93			15	27		BAD-BDEAC-CHAD financing
Total unpaved	416						
TOTAL	568						

Source: CLRT (2019). as of 2019 (data could be from different previous years, as availability in countries)

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Source: AfDB (2003)

Mali sections of the TSR Corridor (update 2019)

Paved Section	Length Km	Pavement condition	Paved width (meter)	Traffic (ADT)	% ADT Heavy traffic	Construction Date	Comments
Bamako-Ségou	240	Poor	6 m	4,190	30	70's	09-2014 2X2 lanes under way
Ségou- Bla- San- Sienso	199	Fair	7 m	1,229	35	1999	Financing needed for rehabilitation
Sienso- Ouan	102	Fair	7 m	1,494	35	2000	Financing needed for studies and rehabilitation
Ouan - Sévaré	124	Fair	7 m	1,366	25	2000	Financing needed for studies and rehabilitation
Mopti-Douenzta	178	Good	7 m	1,800	50	2010	Periodic maintenance done on 88 km from Mopti. Financing needed for periodic maintenance of remaining 90 km (possible local budget)
Douenzta-Gao	380	Very poor	6 m	71	55	1984	Rehabilitation studies financed by West Africa Economic and Monetary Union/ Union Economique et Monétaire Ouest-Africaine (WAMEU/ UEMOA). Periodic maintenance and rehabilitation need funding
Total paved	1,223						
Unpaved Sections (tracks)							
Gao - Bourem	93	Earth road	5 m	21	30		Start of work in October 2011 then shutdown
Bourem - Kidal	318	Earth road	5 m	10	20		Studies funded by EU
Kidal-Timiaouine (border Algeria)	294	Earth road	5 m	3	47		Financing needed
Total unpaved	705						
TOTAL	1,928						

Source: CLRT (2019), as of 2019 (data could be from different previous years, as available in countries)

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Tunisia sections of the TSR Corridor (update 2019)							
Sections Paved	Length Km	Pavement condition	Paved Width (meter)	Traffic ADT	% ADT Heavy vehicles	Construction Date	Comments
HAZOUA (Border Algeria) - GABES							
Hazoua - Nafta	38	Good	>7 m	955	5	70's	
Nafta - Gafsa	115	Good	>7 m	4,426	17	70's	
Gafsa - Gabès	147	Good	>7 m	4,537	12	70's	
		Good	>7 m	28,326	10		
Total 1	300						
GAFSA - TUNIS - Goes through RN3-RN12 and A1							
Gafsa - Kairouan	200	Good	>7 m	10,510	23	Before 1970	
(through Sidi Bouzid)		Good	>7 m	9,593	8		
Kairouan - Sousse	54	Good	>7 m	14,875	23	Before and after 1970	
Sousse - Tunis	145	Good	2 x 2 lanes	22,048	12		Tunis-Hammamet section 2 x 3 lanes
		Good	2 x 2 lanes	9,401	16		
		Good	2 x 2 lanes	29,696	19		
		Good	>10.5 m	16,121	4		
		Good	2 x 2 lanes	12,960	4		
Total 2	399						
TOTAL 1+2	699						

Source: CLRT (2019), as of 2019 (data could be from different previous years, as available in countries)

3 - Traffic on TSR, road safety, road policies in member states

Traffic on TSR corridor roads

As shown in the tables above, the traffic on the main north-south axis is high on the sections in Algeria and Nigeria where it reaches on average 125,000 vehicles/day (on Algiers-Blida highway) and 70,000 vehicles/day (on Lagos-Ibadan part) respectively (2019). The share of heavy traffic (trucks) is 15% in Algeria and 35% in Nigeria. In Niger, on the main axis of the TSR, traffic is low and the highest reported was 633 vehicles/day, with less than 1% for heavy vehicles, on the section from Zinder to the border with Nigeria.

On the connecting sections, 2019 traffic is low except in Tunisia where the traffic from Gabès to the border with Algeria and then to Ghardaia (in Algeria on the main TSR axis) is higher than 3,000 vehicles/day with a share of 15% to 40% for heavy vehicles. In Mali, traffic volume is less than 10 vehicles/day from Kidal to the border with Algeria. In Chad, while traffic volume is about 745 vehicles/day, with 35% for heavy vehicles, from N'Djamena to the border with Nigeria, the volume is less than 20 vehicles/day (with a share of 25% for heavy vehicles) on the road to the border with Niger.

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The table below summarizes the daily traffic (all vehicles/day and trucks/day) per country and total on the roads composing the TSR corridor. The total traffic on the TSR corridor roads is about 613,716 vehicles/day of which 104,179 are trucks. Some sections of the roads are under construction or planned to be upgraded, or surfaced, which may increase traffic.

Traffic on TSR corridor roads: number of vehicles and number of trucks (update 2019)				
Country	Total length of TSR corridor roads (km)	Traffic ADT: total number of vehicles/day	Heavy Traffic ADT: total number of trucks/day	Comments
Algeria	3,310	265,368	37,652	Some sections of the TSR corridor roads are under construction or planned to be upgraded (or surfaced) which may increase traffic
Chad	570	3,036	488	
Mali	2,180	10,184	3,499	
Niger	1,985	2,907	1,265	
Nigeria	1,131	168,773	42,269	
Tunisia	699	163,448	19,006	
Total	9,875	613,716	104,179	

Source: Based on CLRT 70th Meeting, 2019, as of 2019 (data from different previous years, as available in countries)

Available data and details on trucking and road freight industry in the TSR countries, trucking transport, and the cost of transport (formal, informal truck transport, fleet condition, number of trucks and trade volumes along some routes of the TSR) are given in Chapter IV with details summarized in Annex 1 of the present report.

Road networks, policies, and road safety issues

Algeria

The Algerian road network⁷, under the responsibility of the Ministry of Public Works, is one of the densest of the African continent. There are over 96,000 km of paved roads including 1,394 km of expressways and 29,000 km of unpaved roads for a total road system of about 127,000 km. The road system's density in Algeria is 4.0 km/1,000 inhabitants. A second 1,100 km east-west cross-axis is under construction further south: the highlands expressway. The port of Algiers is served by a fast lane.

The quality of the road network has gradually improved. Over 80% of roads are paved, and 69% of the network is in good condition while 11% are in poor condition. Road maintenance is provided under the government budget, which covers 84% of maintenance needs for the network (2016 data). Various actions are being taken to address the overload of heavy trucks which accelerates roads deterioration, and 18 wilayas (Algerian provinces) report 34% infringement rate in allowed axle load.

⁷ Ministry of Public Works, Algeria, <http://www.mtp.gov.dz/> and <http://www.mtp.gov.dz/?p=786>.

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Algeria suffers significant road safety issues⁸, including lack of roadway signage, insufficient vehicle maintenance, defective and pirated auto parts, driver fatigue, and reckless and unskilled drivers. Lack of enforcement continues also to be a major problem. These are key contributing factors to the growing incidence of road traffic crashes and resulting injuries. According to WHO report (2018, with available data of 2015), over 9,300 annual road fatalities, or as high as 23.5% fatalities per 100,000 inhabitants per year (compared to 9.3 average in Europe and 26.6 average in Africa).⁹ The Algerian car fleet amounted to 6,418,212 vehicles in 2018, which was 4.15% more than in 2017. The number of vehicles (including trucks) is about 140/1,000 people.

The Algerian government adopted new road prevention measures in February 2020. These are based on four pillars: legal and administrative; road infrastructure; road inspection; and education and information.

Chad

A large Sahelian country, Chad is totally landlocked and shares borders with six countries (Libya, Sudan, Nigeria, Niger, and Central African Republic). The road network in Chad is under the responsibility of the Ministry of Infrastructure and Transport. The network, of a total length of 44,000 km, is composed of 25,000 km of national and regional roads and 15,000 km of rural roads¹⁰. About 21% of the roads are paved and classified as primary roads. Most of the paved roads can be found at the stretch between Niamey and Nguime, via Diffa, and the triangle consisting of Agadez, Zinder and Tahoua (some 260 km of urban roads are paved). The road sector is supported by different international financing agencies and development partners.

Traffic is over 1,000 vehicles/day only on 4% of the national roads¹¹, while it is about 50 vehicles per day on 65% of the national and regional roads. Some 27% of the network is reported to be in poor condition, 55% in fair condition and 18% in good condition (mainly the paved roads). Chad has a Road Maintenance Fund designed to support road maintenance through fuel levies, but its functioning is still not fully adequate. The country has also experienced one of the first initiatives of performance-based contracts by the private sector for roads, which long term maintenance contracts based on the level of services. The results are mixed and not fully satisfactory.

The Ministry of Infrastructure and Transport is also responsible for transport aspects and policies. The country counts 7 vehicles per 1,000 inhabitant including trucks, one of the lowest in the world. Road axle control was an integral part of the reforms promoted by different development partners supporting the road sector in Chad, but vehicle overloading is still one of the greatest threats to the sustainability of road infrastructure improvement. Many new weighbridges have been built on the main roads. On these roads, many other mobile brigade's weighbridge equipped with modern axle-scales are also operated. The maximum tonnage a truck can load is limited to 32 Mt (metric ton) for triple-axle (21 Mt for double-axle and 13 Mt for single-axle).

Road safety¹² at the national level continues to be a serious and alarming matter. About 75% of accidents are due to excessive speed, overloading old trucks, and poor road conditions. Most car accidents are recorded on paved roads and on the rough earth roads in the Eastern region. According to WHO (2018 report)¹³, Chad road traffic fatalities were estimated at about 28% per 100,000 inhabitants in 2016. Chad has a road safety policy and a lead agency accountable to the Ministry of Transport. The lead agency has no legal power over standards and regulations. The country has no action plan with achievable targets.

⁸ Road safety in Algeria: new preventive measures, Atlas Magazine, <https://www.atlas-mag.net/en/article/road-safety-in-algeria-new-preventive-measures>.

⁹ WHO (2018).

¹⁰ Logistics Capacity Assessments (2020) <https://dlca.logcluster.org/display/public/DLCA/LCA+Homepage>

¹¹ CLRT. Year 2019.

¹² Road accidents injuries: mortality rate per country report 2020, <https://www.atlas-mag.net/en/article/road-safety-in-2017>.

¹³ WHO (2018).

Mali

Like Niger and Chad, Mali is also a large landlocked developing country. Most of the population in Mali is concentrated in the southern area with mostly nomads inhabiting farther north. The south has easier access to resources, agriculture, and markets. Mali's road network¹⁴ has one of the lowest road densities in the continent. Even in parts of the country that are not arid or desert, road density is lower than the continent's averages, and rural accessibility is poor when compared with peer countries with similar income levels.

The road network (2020) totals about 89,024 km of which 6,605 km are paved, and only 2,667 km (40.38 %) in good condition and 2,352 km (35.62 %) in fair condition. The country's main economic link to the coast is a paved road between Bamako and Abidjan in Côte d'Ivoire. A Road Authority was setup in 2011 and introduced a multi-year maintenance programming. Road maintenance remains however inadequately funded and a major challenge for Mali and the Road Fund has difficulty matching the fuel levies revenues with the maintenance needs.

The Ministry of Equipment and Transport is responsible for the road network, through the Road Authority, and is also responsible for transport policies in Mali. The country counts a total of 203,000 vehicles, including trucks, or approximately 12 vehicles per 1,000 people. Mali is building several weighbridges along the main national roads, in accordance with its axle load policy and trying to comply with the WAEMU/JEMOA axle load limits (11.5 Mt). The policy foresees excessive loading fines, but enforcement remains a challenge. The road density, at 28 km/1,000 km² of land, is much lower than the average (88 km/ 1,000 km² of land) in low-income countries. Rural accessibility index (% of rural population within 2km of all-season road) is 14% compared to an average of 34% for low-income countries. Traffic is low: 547 average annual daily traffic on paved roads (compared to an average of 1,341 for low-income countries) and 21.5 on unpaved roads (compared to 38.5 for low-income countries). Some 65% of the paved road are in good or fair condition (compared to an average of 86% for low-income countries).

Despite the efforts made by the authorities, including education and media campaigns, to stabilize and reduce the number of deaths on the roads, road safety remains a major challenge for Mali. According to WHO (2018 report)¹⁵, road traffic accidents fatalities were estimated at about 23% per 100 000 population (2016 data) in the country. Most of accidents are due to the narrow roads, poor vehicle state, lack of respect of security measures by bicyclists and motorcyclists. Mali has a road safety policy and lead agency accountable to the Ministry of Transport. The lead agency is fully in charge of road safety standards and regulations.

Niger

The road network in Niger¹⁶, a large landlocked country (1,270,000 km²), is under the responsibility of the Ministry of Equipment, through the Directorate General for Major Works (DGGT). The network is about 18,950 km long of which 21% are paved and classified as primary roads. Most of the paved roads are in the south between Niamey and Nguigmi, via Diffa, and the triangle consisting of Agadez, Zinder and Tahoua. Secondary roads represent about 13.5% of the network and consist of gravel roads. Tertiary roads are about 7.5% of the network and are generally earth roads. The remaining 58% consist of rural tracks and trails.

As there is no railway nor domestic air service in Niger, the country is dependent on its road network to connect its major population centers and support the economic activity. There is strong need for road rehabilitation and maintenance to keep up with and promote economic development, especially during and after the rainy seasons, when tracks and trails become practically impassable. Improving the condition of

¹⁴ Agence Ecofin (2020), <https://www.agenceecofin.com/transports/0812-83296-mali-en-2020>.

¹⁵ WHO (2018).

¹⁶ Logistics Capacity Assessments, (2020), <https://dlca.logcluster.org/display/public/DLCA/LCA+Homepage>.

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the road network, both paved and unpaved, remains an important challenge, and financing maintenance of road networks with low density and traffic is particularly difficult. The number of vehicles is very low in Niger and stands at only 8 vehicles/1,000 people including trucks, one of the lowest in the world.

Following a road maintenance reform of 2019¹⁷, the Road Maintenance Fund (second generation maintenance fund) finances the routine and periodic maintenance with the use of two instruments newly setup, AMODER (Delegated Road Maintenance Supervisory Agency) and CACER (Road Maintenance Contracts Routine Audit Unit). Funding for rehabilitation and maintenance has been mainly supported by international and regional partners such as the World Bank, the European Union (EU), the West African Development Bank (BOAD) and the Chinese government.

Transport aspects, policies and regulations are under the Ministry of Transport. The axle load limits have been in place for many years and Niger increased the number and placement of weightbridges since 2009, as Niger follows the axle load limits of WAEMU/UEMOA. Following a period of non-respect by the transporters, the ministry and the authorities started reinforcing the control in 2017.

Road safety¹⁸ is a major concern and road accidents have been identified as a major public health concern by the Nigerien government. Mortality rate of road traffic mortality was estimated at 25.5% deaths per 100 000 inhabitants. Among the main causes of accidents are excessive speed, poorly maintained vehicles, and poor road conditions.

Nigeria

The Nigerian road network¹⁹, the largest in West Africa and the second largest south of the Sahara, is about 195,000 km long of which some 33,000 km are federal roads (under the Federal Ministry of Transportation) and 50,000 km are state roads and 117,000 km local government and feeder roads. Some 60,000 km of the total network are paved. The network suffers from weak design, inadequate drainage systems and deterioration due to lack of proper maintenance. Despite the existence of a Road Fund, under-funding of road maintenance results in heavy road maintenance backlog. It is estimated that less than 30% of the roads are in good condition. The road sector is supported by different international development partners.

The Federal Ministry of Transport has the responsibility for intermodal transport coordination and policy issues for road, rail, water, and air modes, as well as for rail and mass transit, inland waterways, and maritime aspects. On road sector, the ministry adopted ECOWAS the regional road transport and transit facilitation program to reduce multiplicity of official and unofficial checkpoints, harassment and extortion of travelers and axle load excesses. Enforcement remains however a major issue.

Alarming statistics are reported each year on accidents and fatalities due to road safety issues and lack of enforcement of policy measures. Speed violation and dangerous driving are among the main causes of road crashes. The National Bureau of Statistics²⁰ reports that approximately 12 persons die daily in Nigeria as result of road crashes (2019). Mortality rate of road traffic mortality was estimated at 20.7% deaths per 100 000 inhabitants (according to WHO data of 2018). They estimate the number of vehicles in Nigeria to 11.8 million (2018), including trucks (commercial vehicles are estimated at 58% of the total). This is about 60 vehicles per 1000 people, which is low compared to other developing countries (Algeria is about 140, South Africa 174 and Tunisia 129). Road safety activities in Nigeria follow a national policy and action plan to reduce road crash deaths. There is also a lead agency accountable to the president and authorized on road safety standards and regulations.

¹⁷ Road project appraisal report, AfDB, (2019) <https://www.afdb.org/en/documents/niger-tamaske-tahoua>.

¹⁸ Road accidents injuries: mortality rate per country report 2020, <https://www.atlas-mag.net/en/article/road-safety-in-2017>.

¹⁹ Logistics Capacity Assessments (2020), <https://dlca.logcluster.org/display/public/DLCA/LCA+Homepage>.

²⁰ Nigeria National Bureau of Statistics, Road Transport Data, <https://nigerianstat.gov.ng/pdfuploads/Road>.

Tunisia

The Tunisian road network²¹, under the responsibility of the Ministry of Equipment through the General Directorate of Roads and Bridges, is composed of approximately 32,332 km of which some 12,264 are paved roads extending over the country with some 640 km of expressways. The country has also some 12,600 km of rural roads (of which 1,460 km are paved). The road system's density in Tunisia is about 12 km/100 km² of land, and 2 km /1,000 inhabitants while the African average is 0.5 km/1,000 inhabitants. The roads condition is generally good to fair, but the low allocation to maintenance (only 7% in 2019 of the total budget's allocation to the road sector) over the last years is negatively impacting the roads condition. The government is planning to increase the maintenance allocation to 25%.

The Ministry of Transport is responsible for transport sector policies and programs, land transport, maritime transport, air transport, and logistics. The country counts a total of 1,450,000 vehicles, including trucks, or approximately 129 vehicles per 1,000 people. The maximum tonnage a truck can load is limited to 32 Mt for triple-axle.

According to the WHO data published in 2018²², estimates show that road traffic fatalities rate was at about 22.8% per 100,000 population in 2016 (it was estimated that the road crash cost for 2011 in Tunisia amounted to about 1% of its GDP). The country has a road safety policy and lead agency, but road safety activities are not guided by a national action plan with measurable targets. Road safety and enforcement of its legislation remains a challenge.

4 - The gateways of the TSR Corridor: the ports of Algiers, Lagos and Gabès

Seaports play important roles in the development of trade as they serve as gateways and transit points through which imports and exports flow into and out of a country. As such, seaports are critical elements of global supply chains and particularly for trade and transport corridors. Global trade enhances economic development, and many countries have taken advantage of this linkage by reducing or eliminating obstacles that slow down the movement of cargo through their seaports. Slow moving cargo often results in high wait times that lower seaport efficiency, and negatively affects the cost of trade, delivery time, and competitiveness of a country.

The port of Algiers²³

With a total traffic of 16 Mt in 2016, the port of Algiers²⁴ is Algeria's first multifunctional port. It handles 33% of non-hydrocarbon maritime trade, despite its constrained area. The draught from the wharves is 6.30 to 10 m, which does not allow the servicing of container ships with more than 2,000 TEUs. The port, originally designed as an export port, has various wharves and terminals (including shipping station, container terminal, oil dock for imports, general cargo docks, grain wharf, and bitumen docks) and only 232,000 square meters of storage space. It is connected to the railway, but the connection crosses the expressway at grade, which severely constrains train timetables, and the connection to the port no longer serves all platforms.

The port was opened to traffic in 1998, and in 2019 it handled a total of 2,200 vessel calls and 444, 621 TEUs²⁵. The main traffic is provided by liquid bulk goods followed by solid bulks and then general goods. Among general goods, the port handled 898,000 TEUs in 2016 (up 5% from 2015), or 47% of the total of all ports. This shows the important fluctuations of in port handling over the years. The port of Algiers

²¹ Logistics Capacity Assessments (2020), <https://dlca.logcluster.org/display/public/DLCA/2.3+Tunisia+Road+Network>.

²² WHO (2018).

²³ World Bank (2018a).

²⁴ Global Agency (2019), <https://tntglobal.com.vn/news/maritime-law/5-major-ports-of-algeria>.

²⁵ <https://www.portalger.com.dz>

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has a total storage area of 282,000 m², representing 24% of the total surface evenly distributed among the three geographical areas of the port and welcoming merchandise, with 12 stores of 50,000 m². This capability allows storage of 120,000 tons of goods, while the average monthly volume landed is now 800,000 tons. The main shipping lines present in the port are CMA-CGM (35% of traffic), MSC (33%), Maersk and Turkish companies (17%). COSCO serves Algiers since 2018 from Genoa (Italy).

The port of Algiers has put in place some export incentives. It proposes a 50% reduction in the tariffs of services provided to Algerian goods for export: lifting, weighing, electrical connections for refrigerated containers (reefer), handling of containerized products and handling of agricultural products. It also grants a ten-day free allowance for the stay on terminals for Algerian cargo for export.

Operation of the container terminal was contracted to Djazair Port World (DPW, a joint subsidiary of the Dubai Port World Group, DP World, and the Algiers Port Company EPAL)²⁶, officially setup in 2009. DPW has a 30-year container terminal concession. DPW manages the container terminal and trains the staff. Initially the terminal was to operate with gantries but a reinforcement of infrastructure by EPAL is necessary before the four existing mobile cranes can be replaced.

It is reported however that the port's performance has improved in recent years. As a result, the drop-off wait has fallen sharply since the 2000s, to 0.6 day in 2017 (1.50 days in 2016) and the average length of dock stays was 3.32 days that same year. The drop in traffic has certainly contributed to this. The dwell time in the port is 6 to 7 days and there is no waiting at the harbor. The docking time is 52 hours, but there are delays for the equipment.

Despite the improvements, the port of Algiers remains a congested port and congestion surcharges are applied regularly by shipping lines. Delays are common. Although there are significant levels of private sector involvement, reports on physical constraints imply that the private sector involvement is unlikely to resolve all the issues. Customs is slow to release trucks full of imported goods. As a result, the container terminal cannot arrange same day returns for loaded arriving trucks. In addition, container movements are increased by the mandatory return of empty containers to the original port. The main reason seems to be the lack of automated tracking of unloaded containers at the port.

The port of Lagos (Apapa port)

The Lagos port is the largest seaport in Nigeria. It is situated in the Apapa area of Lagos and extends over 200 ha of land. The port comprises 19 berths for general cargo, 2 berths for bulk cargo, 6 berths for container handling and 1 berth for roll-on-roll-off (Ro-Ro) operations. The port has 4 terminal private operators and a bulk wheat grain silo with storage capacity of 76,600 tons. The port serves as the economic door to Nigeria and has also 2 privately operated logistics bases and 8 jetties. The port handles most of the country's seaborne trade, and cargo in transit to inland countries (such as Chad and the Niger). Some 5,750,000 tons of cargo are handled annually.²⁷

Several critical factors adversely affect the Lagos Port inefficiency. The challenges identified include transport infrastructure deficits, services and facilities deficiencies of government agencies, and deficiencies in services of the private sector operators at the port. These are exacerbated by other factors including lack of trust and supply chain culture amongst the port stakeholders. Policy changes at the port, with limited input from stakeholders, are difficult to predict especially with a low level of automation and digitalization in the documentation process, resulting in repetitive submission of copies of the same document at the different stages of the supply chain.

Delays in activities at Lagos port²⁸, notably long lines of vessels waiting to berth while others are being

²⁶ World Bank (2018a).

²⁷ Shipnext (2021), <https://shipnext.com/port/lagos-nglos-nga>.

²⁸ Nigerian Port Congestion and the Reaction from Ocean Carriers, <https://www.morethanshipping.com/nigerian-port-congestion-and-the-reaction-from-ocean-carriers/>.

offloaded at the port's terminals, are exacerbated by occasional strikes of truckers and transport operators, especially tanker drivers.

The transport infrastructure deficits are on both land (roads, adequate accesses, rail, inland waterways) and sea (approach channel, port basin). Transport infrastructure deficiencies on the sea and land sides of the port were identified as constituting a hindrance to the efficient flow of goods through the ports. Absence of alternatives to road transportation, insufficiencies of the road network and its poor level of maintenance, contribute to road congestion and delays and accentuate the problems of freight traffic. Only large investments, as well as other institutional and soft measures, over a long period of time will address the transport infrastructure and service deficits.

The port of Gabès

With a basin depth of 12 meters, the deepest of all Tunisian ports, Gabès port²⁹ is suitable for receiving ships of all sizes. It also has 8 docks totaling a length of 2 km., and two protective jetties of 4,5 km long total. The port is connected to the rail and highway network, which enables it to support container transport and handling. The port has an equipped storage area of 25,000 square meters, a covered area of 4,000 square meters in addition to an available land of 100,000 square meters.

This commercial port, the activity of which is mainly industrial, serves essentially the transit of chemical products for the plants located in the industrial area of Gabès. The bulk traffic consists mainly of sulfur and ammonia for import and phosphoric acid and phosphate fertilizer for export.

A container shipping line, initially to Russia, from the port of Gabès was launched in 2018. The objective was to facilitate and reduce the cost of transport for exporting companies in the region that were forced to transport their goods through other ports.

The infrastructure of the port of Gabès allows for the construction of a container terminal and to ensure loading/unloading and transport/handling operations on a regular shipping line, especially as the port has a capacity of 100,000 to 150,000 containers per year.

5 - The border crossings and dry ports

The border crossings

In addition to the well-known security issues in the Sahel region, the problems reported at the different border crossings have to do with an excessively rigorous and narrow interpretation of the regulations which causes problems and delays. The fact also that Algeria is not part of the TIR convention (Algeria suspended the convention application since 1991) does not help.

On the main north-south corridor, the only official border crossing from Algeria to Niger on the TSR is between the towns of In Guezzam (Algeria) and Assamakka (Niger). The area is generally deemed unsafe for travel. There are numerous official border crossings between Niger and Nigeria, the main ones being Gaya-Kamba, Birni-N'Konni-Ilela, Dan-Issa-Katsina and Magaria-Mutum.

On the linking branches of the TSR corridor, there are road border crossings linking N'guigmi in Niger to the Chadian towns of Nokou and Rig Rig. It is reported that the unpaved route is in bad condition and is unsafe due to banditry. There is a road crossing in the far west of the border connecting Mali (at Ansongo) and Niger (at Ayourou), and further east lies the border crossing at Andéramboukane (Mali). Travel to the border region is also unsafe due to the ongoing instability in the area. Chad shares an 87 km border with Nigeria in the northeast. However, the traffic from N'Djamena to Nigeria goes through Zinder in Niger

²⁹ Ministry of Transport and Logistics (2021), Tunisia, <http://www.ommp.nat.tn/gabes-en>.

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and connects with the North-South (TSR) road to Lagos. The TSR border crossing between Algeria and Tunisia is at Hazoua on the Ghardia (Algeria) to the port of Gabès (Tunisia).

The available data and reports (AfDB, World Bank, Trade Intelligence, data from governments, etc.) on trade and exchange between and through the TSR countries highlight the hard and soft infrastructure issues of the main border crossings linking the countries. In term of infrastructure, the border crossings lack waiting and rest areas, parking, facilities for truckers and crews, buildings and facilities for future joint border crossing processing, trade facilitation measures and procedures, ICT for exchange of information and customs aspects, communication systems, scanners, systems for risk management, etc. The impacts of the border crossings issues and delays on trade prices and times are given in Chapter IV further below and in Annex 1 on the freight road transport, as well as in Annex 3 which highlights the informal trade aspects and related border crossing issues.

The dry ports and inland container depots

Algeria has several dry ports including on its section of the TSR corridor. The Algeria dry port program was launched when the internal storage spaces at the ports were saturated. UNCTAD describes a dry port as: “An inland terminal to which shipping companies issue their own bills of lading for import cargoes assuming full responsibility of costs and conditions and from which shipping companies issue their own bills of lading for export cargoes”.³⁰ As such, a dry port functions as a wet port receives containers, transported in large numbers and still in international transport, to be cleared by customs on the spot.

There is no logistics operation (depositing, consolidation, de-consolidation) on the dry port itself. The dry port can thus meet two operational or commercial objectives: (i) decongest the wet port of connection, which is the *raison d'être* of almost all dry ports in Algeria; (ii) allow customs clearances closer to importers when they are not directly in the port area. The dry port is particularly useful for exporting. The dry ports are generally far from the port of connection.

Nigeria launched a program of dry ports in 2006 under a public-private partnership scheme with concessionaires and, a decade later, established inland container depots. The initiatives responded to the excessive traffic congestion of the port of Lagos (lack of modernization in customs procedures, have led to significant dwell times) and increased cross-border trade between the north of Nigeria and neighboring landlocked countries.

Several inland container depots are under private management in Chad, Niger, and Mali. The private operators invested also in the construction and development of closed, secured warehouses, as well as in bonded warehouses.

Environmental sustainability

Overall **environmental sustainability** aspects are not given appropriate attention. Policies to promote economic growth should reflect the limited nature of nonrenewable resources, as well as the impact of economic activity on the environment, climate change and the need to protect biodiversity and reduce greenhouse gas emissions. Environmentally sustainable policies are essential for economically sustainable growth in general and for reducing externalities such as air pollution, greenhouse gas emissions and climate change impact. Increased transport and trade activities raises the pressure to reduce externalities and heightens the need to shift to sustainable patterns. Integrating sustainable criteria into corridor infrastructure development and operations would support efficient long-term sustainable and inclusive development. Recent accelerated growth in technological advances and innovations suggest a significant potential for such technologies to support sustainability-building efforts.

³⁰ UNCTAD, *Handbook on the Management and Operation of Dry Ports (UNCTAD/RDP/LDC/7)*, 1991.

TSR COUNTRIES ECONOMIC OUTLOOK, TRADE EXCHANGE, LOGISTICS PERFORMANCE AND PERSPECTIVES



The Covid-19 crisis is affecting the entire world economy and that of Africa. The AfDB estimated that economic growth in the continent shrank by 2.1% in 2020.³¹ Economic growth is forecast to resume at a moderate average pace of 3.4% in 2021 before leaping to 4.6% in 2022, underpinned by an expected rebound in commodity prices, resumption of tourism, a rollback of pandemic-induced restrictions, widespread roll-out of Covid-19 vaccinations, and barring persistent outbreaks in several countries, both in the continent and its trading partners. However, the overall African average masks regional differences. Among Africa's sub-regions, the hardest hit in terms of economic growth is Southern Africa, whose growth is estimated to have fallen by 7.0% in 2020. It is followed by Central Africa (-2.7%), West Africa (-1.5%), and North Africa (-1.1%). East Africa, which is least dependent on natural resources, managed an estimated 0.7% growth in 2020. Among oil-exporting countries, Libya was the hardest hit with a steep fall in estimated GDP growth in 2020 at 60.3%, followed by Equatorial Guinea (-6.1%), Algeria (-4.7%), Angola (-4.5%), and Nigeria (-3%).

The present chapter reviews the economic outlook of the member countries of the TSR corridor, based on available data (prior to 2020, the year when the Covid-19 pandemic erupted with consequent negative impacts on the global and national economies) from different international organizations and specialized agencies (especially AfDB Economic Outlook) without analyzing or predicting the in-depth effects of the Covid-19 pandemic. The review highlights the specificities of each of the countries and the similarities that could unite them. The data is supported by a desk-based TFA (trade and transport facilitation audit) carried out for each of the TSR corridor countries. The chapter also reviews the external trade of the six countries and trade between them as well as their logistics performances and the perspectives for improvement. The economic data was also supported by some IsDB economic papers including the Development Effectiveness Report 2019, the Special Program for the Development of Africa (SPDA) and other Member Country Partnership Strategy (MCPS) documents for selected African countries.

The economic data considered for the review was the one prior to 2020, the year when the Covid-19 pandemic erupted with consequent negative impacts on the global and national economies. The data prior to 2020 is also considered more significant for the trade of the TSR countries, and among themselves, as well as for their logistics performance.

1 - Economic outlook of the TSR member countries³²

Economic outlook of Algeria

AfDB (2021) reported that, thanks to a slight rebound in hydrocarbon prices, real GDP growth reached 2.3% for 2019, up from 1.4% in 2018.

Inflation, 4.3% in 2018, remained under control and declined to 2.0% in 2019. The poverty rate has come down since the 1990s thanks to direct transfers, universal subsidies, and measures in favor of social inclusion, amounting to 12.3% of GDP. Data from 2011 give a poverty rate of 5.5%, with an extreme poverty rate of only 0.5%. The unemployment rate, estimated at 12.6% for 2019, was forecast to rise to 13.7% in 2020. Drastic change for the worse could be expected due to the pandemic.

³¹ AfDB (2021).

³² <https://www.afdb.org/en/countries>.

Economic growth shrank by 4.7% in 2020 after growing a paltry 0.8% in 2019. It is forecast to remain relatively stable at 1.8% in 2021. This figure may be compromised by the impact of Covid-19. The country's low external debt and substantial foreign exchange reserves should enable it to weather the shocks. External debt remains negligible (less than 2% of GDP), but domestic debt (excluding guarantees) rose from 7.2% of GDP in 2015 to more than 26% in 2018. Oil and gas represented 96% of export receipts in 2017. The rise in oil prices since 2018 (to around \$70) did not enable Algeria to balance its budget; according to the IMF, Algeria would need an oil price of \$90 a barrel.

GDP (current 2019) was estimated at \$171.16 billion (down 2.43% from 2018). It fell to \$145.16 billion, a 15.19% decline from 2019. In 2019, hydrocarbons represented the leading economic activity in terms of GDP contribution in Algeria, with a share of 19%. Social services followed at 15%. Moreover, the trade, agriculture, and construction sectors contributed 12% each to the country's GDP. Agriculture products include wheat, barley, oats, grapes, olives, citrus, fruits, sheep, cattle. Industries are composed of petroleum, natural gas, light industries, mining, electrical, petrochemical, food processing. Algeria had a population of 43.05 million (2019) and a labor force of 12.3 million (2019 estimate) distributed at 9.6% for agriculture, 30.42% for industry and 59.99% for services. Unemployment rate (2019) was at 11.81% (increased to 12.83% in 2020).

Economic outlook of Chad

As reported by AfDB³³ (2021), after two years of recession (2016 and 2017) following the fall in the price of oil, which led to a debt crisis, Chad's real GDP growth turned positive, reaching 2.4% in 2018 and 2019, driven by the good performance of grain (up 1.2% in 2019), cotton (142%), and oil production (14%, or 146,000 barrels a day). Inflation averaged 3.0% in 2019, within the Central African Economic and Monetary Community (CEMAC) criterion of 3%. Fiscal consolidation in the framework of an IMF program, including debt rescheduling in 2018, contributed to the sustainability of public spending.

The fiscal balance turned positive in 2018 (1.9% of GDP) and 2019 (0.2%), but domestic arrears remain high (10% of GDP in 2018). The account deficit was 6.7% of GDP in 2019, up from 3.4% in 2018. With a poverty rate of 46.7%, the unemployment rate is 5.8%, with high youth unemployment, rising from 42% in 2015 to 60% in 2017 due to the economic recession.

As reported by AfDB's 2021 African Economic Outlook, although Chad has had relatively few Covid-19 cases, its economy has been hurt by the global consequences of the pandemic. In 2020 real GDP contracted by 0.6%, compared with growth of 3% in 2019 and 2.4% in 2018. The recession is mainly the result of a temporary suspension of oil production, the main engine of the economy, and the closure of borders to contain the pandemic, which caused a slowdown in trade.

As a member of CEMAC, Chad is a stakeholder in the regional strategy launched in 2017 to correct the fiscal and external imbalances of all countries in the region. These figures did not materialize, especially for 2020, because of the impacts of Covid-19.

With significant potential for arable land and livestock, agriculture accounts for nearly 35% of GDP and employs 75–80% of the population (AfDB 2021).³⁴ In 2018, the government adopted a bill for a framework law on agriculture to support value chain development and is looking for investors to revitalize the cotton sector and implement initiatives to promote exports of livestock and meat.

GDP (current 2019) was estimated at \$11.27 billion. Its composition by sector of origin in was 52.3% for agriculture, 14.7% for industry and 33.1% for services. Agriculture products include cotton, sorghum, millet, peanuts, sesame, corn, rice, potatoes, onions, cassava (manioc, tapioca), cattle, sheep, goats, camels. Industries are composed of oil, cotton textiles, brewing, natron (sodium carbonate), soap, cigarettes, and construction materials.

³³ <https://www.afdb.org/en/countries>.

³⁴ <https://www.afdb.org/en/countries>.

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Chad had a population of 15.95 million (2019) and a labor force of 6.04 million (2019 estimate) distributed at 80% for agriculture and 20% for industry and services. Unemployment rate was reported at 2.26%.

Economic outlook of Mali

Mali's economy has remained resilient despite a security crisis, according to AfDB. In 2019, the country recorded 5% real GDP growth (driven by good gold and cotton production), a budget deficit of 3.1% of GDP, and 0.4% inflation. Public debt was 35.5% of GDP at the end of 2018.

The economy remains under-industrialized, and the manufacturing industry struggles to develop, which results in needs for imports and in a current account in deficit (5.4% of GDP in 2019). On the demand side, investment is particularly low, at 9.5% of GDP for the private sector and 8.7% for the public sector.

Tax revenue is weak (14.3% of GDP), below the ECOWAS standard of 20%. Analysis of public debt sustainability in May 2018 indicated that the risk of Mali's debt overhang was moderate. The maturity of domestic debt, with 59% of it falling due over 2019–21, was of great concern.

As reported by AfDB's African Outlook of 2021, The Covid-19 pandemic, combined with other issues, drove the economy from strong growth of 5.1% in real GDP in 2019 to a recession in which real GDP shrank by 2% in 2020 a loss of 7.1% points. The creation of the African Free Trade Zone and the ECOWAS single currency (eco) zone should strengthen Mali's integration into the region.

To promote the private sector, the government launched an Economic Infrastructure Program to build roads and bridges. However, the economy depends heavily on gold and cotton (86% of exports), and value chains are poorly developed (3% of cotton is processed). With little diversification, the economy depends on the prices of raw materials on international markets. The accumulation of payment arrears for domestic debt presents a risk of stalling economic activity and the private sector. A mainly young population (67%) is growing at 3.1% a year. The number of jobs created every year (44,520 jobs) cannot absorb labor supply (300,000). The workforce's poor qualifications are aggravated by discrepancy between the supply of training and the requirements of the labor market. The country faces critical infrastructure deficits: only 3% of the classified road network is paved and in good condition. The electricity gap is 140MW, and 53% of the population lacks access to power.

GDP (current 2019) was estimated at \$17.28 billion. Its composition by sector of origin in 2017 was 41.8% for agriculture, 18.1% for industry and 40.5% for services. Agriculture products include cotton, millet, rice, corn, vegetables, peanuts, cattle, sheep, goats. Industries are composed of food processing, construction, phosphate, and gold mining.

Mali had a population of 19.7 million and a labor force of 7.35 million (2019 estimate) distributed at 80% for agriculture and 20% for industry and services. The unemployment rate was reported at 7.24%.

Economic outlook of Niger

According to AfDB, real GDP growth, averaging 5.6% over 2016–18, reached 6.4% in 2019 due to strong performance by the primary and tertiary sectors. This growth is due to investments in infrastructure, extractives, and services, as well as to structural reforms, especially actions aimed at developing the private sector and strengthening the resilience of agriculture. Inflationary pressures remained contained, with an estimated rate of 1.5% for 2019.

The budget deficit, estimated at 3.2% of GDP in 2019, was higher than the Economic and Monetary Union of the Africa West (WAEMU/UEMOA) target of 3%. The current account deficit, estimated at 14.6% of GDP in 2019, was due to investment-linked imports, persistently low world prices of raw materials (particularly uranium), and the narrow export base. Donors and foreign direct investment have financed most of this deficit. In June 2019, the risk of debt distress was assessed as moderate, with a public debt-to-

GDP ratio estimated at 54% of GDP. Despite progress in education and health, and a reduction in poverty (from 48% in 2011 to 40% in 2016), key human development indicators remain low. The unemployment rate, more pronounced among young people, rose from 13% in 2011 to 17% in 2017. AfDB's 2021 African Economic Outlook reports that real GDP grew 1.2% after growing 5.9% in 2019 and 7% in 2018. . The outlook was tied largely to support from donors and to accelerated foreign direct investment, particularly in such strategic sectors as oil. But the figures remain uncertain for 2021 and 2022 because of the global negative impact of Covid-19 and other issues.

Growth remains exposed to several risks. The persistence of regional insecurity puts substantial pressure on public finances, resulting in reduced allocations to priority sectors such as education and health. The agricultural sector, which represents more than 40% of GDP and almost 80% of the labor force, remains vulnerable to climate change. High dependence on external finance and low capacity in implementing large projects could lead to macroeconomic slippage. Export revenues are highly vulnerable to volatility in the prices of raw materials. And recent measures by Nigeria—abolishing re-exports from Niger and Benin and devaluing the naira—could become higher.

GDP (current 2019) was estimated at \$12.9 billion. Its composition by sector of origin was 37.81% for agriculture, 20.23% for industry and 36.09% for services. Agriculture products include cowpeas, cotton, peanuts, millet, sorghum, cassava (manioc, tapioca), rice, cattle, sheep, goats, camels, donkeys, horses, poultry. Industries are composed of uranium mining, petroleum, cement, brick, soap, textiles, food processing, chemicals, slaughterhouses. Niger had a population of 22 million (2019) and a labor force of 6.5 million distributed at 79.2% for agriculture, 3.3% for industry and 17.5% for services. Unemployment rate was at 7.9% (2019).

Economic outlook of Nigeria

As reported by AfDB, real GDP growth was 2.3% in 2019, marginally higher than 1.9% in 2018. Growth was mainly in transport, an improved oil sector, and information and communications technology. Agriculture was hurt by sporadic flooding and by conflicts between herdsmen and local farmers. Manufacturing continued to suffer from a lack of financing. Final household consumption was the key driver of growth in 2019, reinforcing its 1.1% contribution to real GDP growth in 2018.

The effort to lower inflation to the 6%–9% range faced structural and macroeconomic constraints, including rising food prices and arrears payments, resulting in a rate of 11.3% for 2019.

With fiscal revenues below 7% of GDP, increased public spending widened the deficit, financed mainly by borrowing. At the end of June 2019, total public debt was \$83.9 billion—14.6% higher than the year before. That debt represented 20.1% of GDP, up from 17.5% in 2018. Domestic public debt amounted to \$56.7 billion, and external public debt \$27.2 billion. The current account surplus sharply declined due to increased imports, lower oil revenues, and a smaller than expected improvement in capital flows.

Poverty remains widespread. The poverty rate in over half Nigeria's 36 states is above the national average of 69%. High poverty reflects rising unemployment, estimated at 23.1% in 2018, up from 14.2% in 2016. Low skills limit opportunities for employment in the formal economy.

Risks to growth outlook have increased after oil prices crashed, and remained since then uncertain, following the failed OPEC+ talks to reduce production in March 2020. Moreover, given demand for oil is likely to remain subdued owing to the pandemic, the country's fiscal and external positions are set to deteriorate further.

GDP (current 2019) grew by 2.7% from 2018 when it was estimated at \$397.3 billion. Its composition by sector of origin in 2019 was 21.91% for agriculture, 27.38% for industry and 49.73% for services. Agricultural products include cocoa, peanuts, cotton, palm oil, corn, rice, sorghum, millet, cassava (manioc, tapioca), yams, rubber, cattle, sheep, goats, pigs, timber, fish. Industries are composed of crude oil, coal, tin, columbite, rubber products, wood, hides and skins, textiles, cement and other construction materials, food products, footwear, chemicals, fertilizer, printing, ceramics, and steel.

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Overall real GDP is estimated by the AfDB's 2021 African Economic Outlook to have shrunk by 3% in 2020, although mitigating measures in the Economic Sustainability Program (ESP) prevented the decline from being much worse. Nigeria had a population of 201 million (2019) and a labor force of 62.45 million (2019 estimate) distributed at 70% for agriculture, 10% for industry and 20% for services. Unemployment rate was at 8.53% (2019).

Economic outlook of Tunisia

As reported by AfDB³⁵, real GDP growth slowed to 1.5% in 2019 following two years of expansion. Growth in the agriculture and fishing sectors slumped to 1.7% in 2019 from 9.8% in 2018. Growth was spurred primarily by tourism and financial services and, on the demand side, by private consumption.

The fiscal deficit improved slightly to 3.9% in 2019, from 4.6% in 2018. The current account deficit was 10% of GDP in 2019 and is projected to remain high at 9.9% in 2020 and 8.4% in 2021. Despite the central bank policy of raising interest rates since 2017, inflation remained at 7.1% in 2019—though it was moderate to 5.63% in 2020 and projected to be at 6.1% in 2021.

AfDB predicted that real GDP growth would recover to 2.1% in 2020 and 2.6% in 2021, spurred on the supply side by agriculture, phosphates, and tourism sectors. These figures did not materialize because of the global negative impact of Covid-19. GDP contracted by 8.8% in 2020 after growing by 1% the year before.³⁶

Tunisia has many strengths, including proximity to Europe, qualified labor, diverse industries (aeronautics, chemicals, textiles), high agricultural and fishery potential, and sizable deposits of phosphates, oil, and gas. The tourism industry was until 2011 a significant source of growth and employment. In the medium term, it will benefit from the steady 5% growth in the global demand for tourism services once the pandemic subsides. GDP (current 2019) was estimated at \$39.20 billion. Its composition by sector of origin was 10.1% for agriculture, 26.2% for industry and 63.8% for services. Agriculture products include olives, olive oil, grain, tomatoes, citrus fruit, sugar beets, dates, almonds, beef, dairy products. Industries are composed of petroleum, mining (particularly phosphate and iron ore), tourism, textiles, footwear, agribusiness, and beverages.

Tunisia had a population of 11.7 million (2019) and a labor force of 4.1 million (2019 estimate) distributed at 14.8% for agriculture, 33.2% for industry and 51.7% for services. Unemployment rate was reported at 15.5% (2017).

2 - Trade review of the TSR member countries³⁷

The following is a brief review of the trade of the six member states of the TSR corridor and the trade between them. It is not an analysis of the potential development and the prospects for increased trade of the countries and between them. This review gives an idea of the differences and similarities of the countries in trade aspects as well as the level of exchange between them. An additional work as part of the present report was carried out to address, in more detail, the trade aspects (including trucking industry aspects and issues, formal and informal exchanges, non-tariff trade barriers, etc.) among TSR countries and the prospects for future development. Annex 1 gives a brief review of trucking industry aspects and issues in the TSR countries. The trade analytical work reflected below in this chapter and in Annex 2 of the present report. Annex 3 gives aspects of the informal trade and its weight in the economy with a focus on the case of informal trade between Algeria and Mali as well as issues at the border crossings.

³⁵ AfDB (2021), <https://www.afdb.org/en/countries>.

³⁶ AfDB (2021).

³⁷ The information given is based on the data and statistics of different sources and organizations (World Bank, European Commission, UNCTAD, AfDB, WTO, etc.).

Trade of Algeria

Algeria has an open economy in which foreign trade represents 58% of GDP.³⁸ Natural gas and oil products account nearly for all of Algeria exports. Algeria's main imports were wheat, cars, petroleum products, dairy, and medicines. Hydrocarbons represent 93% of the total volume of exports. Algeria has a Free Trade Agreement with the EU which already grants preferential treatment to its exports to the EU. Therefore, according to the Regulation on Generalized Scheme of Preferences (GSP), Algeria stopped benefiting from GSP treatment from January 2014, when the free trade agreement took effect.³⁹

In 2019⁴⁰, Algeria had a current account balance of -\$15.94 billion. The country's exports were \$38.32 billion, with its main export partners being Italy (13%), France (13%), Spain (12%), United States (7%), UK (7%), India (5%) and South Korea (5%). Algerian exports included petroleum, natural gas, and petroleum products.

Algeria imported \$54.26 billion in 2019. Its main import partners were China (18%), France (14%), Italy (8%), Spain (8%), Germany (5%), Turkey (5%). Import to Algeria included capital goods, foodstuffs, consumer goods. Overall, the EU is Algeria's largest trading partner and absorbs a major part of Algerian international trade. Fuel and mining products made up 95.7% of EU imports from Algeria in 2019. The EU's main exports to Algeria are machinery (22.2%), transport equipment (13.4%), agricultural products (12.8%), chemicals (12.8%) and iron and steel (10.2%).

Trade of Chad

According to a WTO Trade Policy Review, Chad does not have a legal framework for standards and technical regulations nor is it a member of the International Standardization Organization.

Chad is a member of the main regional economic communities: Central African Economic and Monetary Community (CEMAC), Economic Community of Central African states (ECCAS) and Community of Sahel-Saharan States (CEN-SAD). The overlapping of these regional economic communities with differing levels of liberalization in their respective domestic markets puts constraints on harmonization and alignment.

In 2019⁴¹, Chad had a current account balance of -\$918 million. The country's exports were \$1.19 billion, with its main export partners being China (32%), UAE (21%), India (19%), USA (10%), France (6%), Germany (5%). The exports of Chad included oil, livestock, cotton, sesame, gum arabica, and shea butter.

Chad's imports were valued at \$4.28 billion in 2019. Its main import partners were China (28.7%), France (22.4%), Germany (19%), Taiwan Province of China (15.3%), India (7.9%), Turkey (4.8%). Imports included machinery and transportation equipment, industrial goods, foodstuffs, textiles.

A landlocked country, Chad's nearest port is Douala in Cameroon, located more than 1,700 km from the capital N'djamena. Other ports are even more distant: Cotonou is 2,000 km far, Lomé is 2,100 km far, Lagos is 2,100 km far, and Port Sudan is 3,350 km.

Trade of Mali

Malian exports are generally driven by performance in the mining and cotton sectors and the market prices of these products. Exports are dominated by commodities, particularly gold, followed well behind by cotton. The increase in gold exports reflects higher production levels in several existing mines and new mining sites coming on stream.

³⁸ World Bank (2018).

³⁹ <https://ec.europa.eu/trade/policy/countries-and-regions/countries/algeria>.

⁴⁰ World Fact Book, CIA, Algeria - The World Factbook (cia.gov). <https://www.cia.gov/the-world-factbook/countries/algeria/>.

⁴¹ World Fact Book, CIA, Chad - The World Factbook (cia.gov). <https://www.cia.gov/the-world-factbook/countries/chad/>.

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Malian imports are much more diversified and consist mainly of food products (rice and sugar in particular), fuels, manufactured goods, machinery and transport equipment, and chemicals. Mali imports most of its food products and capital goods.

South Africa, which absorbs the bulk of Malian gold, remains the main export destination. The EU the second most important destination for Malian exports, followed by Switzerland. Other destinations include Senegal, Côte d'Ivoire, and Burkina Faso. On the import side, the EU, particularly France, remains the main source of imports, followed by Senegal, China, and Côte d'Ivoire.

In 2019⁴², Mali had a current account balance of -\$620.5 million. The country's exports were \$4.32 billion, with its main export partners being UAE (66%), Switzerland (26%). The exports of Mali included cotton, gold, livestock.

Mali imported \$6.23 billion in 2019. Its main import partners were Senegal (23%), Cote d'Ivoire (15%), China (11%), France (9%). The import commodities of Mali were petroleum, machinery and equipment, construction materials, foodstuffs, textiles.

As a landlocked country, Mali is connected through seven road corridors to the ports of Nouakchott (1,390 km with difficulties in silt-covered desert roads), Dakar (1,250 km. A rail link of 1,230 km is also provided), Abidjan (1,200 km paved road. An alternate 570 km road and 610 km rail combination is also provided), Tema (1,490 km paved road), Lomé (1,970 km paved road), Cotonou (2,000 km paved road) and Conakry (980 km, the shortest corridor to reach the ports of the Gulf of Guinea).

Trade of Niger

Niger is one of the most important uranium ore exporters in the world. The mining industry is responsible for 80% of exports. All but non-existent industry makes the country dependent on the import of consumer and capital goods. Niger's main trade partners are France, China, and neighboring countries of West Africa.

In 2019⁴³, Niger had a current account balance of -\$1.57 billion. The country's exports were \$1.12 billion, with its main export partners being United Arab Emirates (UAE) 54%, China (25%), France (7%), Pakistan (5%). The exports of Niger included uranium ore, livestock, cowpeas, onions.

Niger imported \$1.55 billion in 2019. Its main import partners were China (19%), France (9%), UAE (7%), Cote d'Ivoire (6%), India (6%), Nigeria (5%), Togo (5%), Turkey (5%). The import commodities of Niger were foodstuffs, machinery, vehicles and parts, petroleum, cereals.

A landlocked country, Niger is connected through five road corridors to the ports of Cotonou (1,060 km road or the combination of 622 km road and 438 km rail), Lomé (1,240 km paved road), Abidjan (1,660 km, the longest corridor to reach the ports of the Gulf of Guinea), Lagos (1,420 km paved road, this corridor offers also the possibility of a 250 km road and 1,150 km rail) and Tema (1,490 km road with over 100 km unpaved section).

Trade of Nigeria

Nigeria's main trade policy objective is to substantially increase the contribution of trade to its GDP, the country's share of global trade, as well as to contribute to promoting intra-African trade, and therefore to accelerate economic growth and national sustainable development.

Nigeria exports primarily petroleum and other raw materials such as cocoa, rubber, palm kernels, organic oils, and fats. It imports secondary products such as chemicals, machinery, transport equipment, manu-

⁴² World Fact Book, CIA, Mali - The World Factbook (cia.gov). <https://www.cia.gov/the-world-factbook/countries/mali/>.

⁴³ World Fact Book, CIA, Niger - The World Factbook (cia.gov).

factured goods, food, and animals. In 2019⁴⁴, Nigeria had a current account balance of \$-17.0 billion. The country's exports were \$95.5 billion, with its main export partners being India (16%), Spain (10%), USA (7%), France (7%) and the Netherlands (6%). The exports of Nigeria included petroleum and petroleum products (85%), cocoa, rubber. Nigeria imported \$47.3 billion in 2019. Its main import partners were China (30%), the Netherlands (11%), USA (6%), Belgium (5%). The import commodities of Nigeria were machinery, chemicals, transport equipment, manufactured goods, foodstuffs, and live animals.

Trade of Tunisia

Tunisia's economy is focused on boosting exports, foreign investment, and tourism. Its main natural resource, phosphate, remains vital to its economy. Tunisia reformed its trade regime through unilateral tariff liberalization, reform of import procedures, and removal of many quantitative import restrictions.

In line with its obligations under the Association Agreement with the EU, which accounts for close to two-thirds of total trade, Tunisia has dismantled all tariffs on imports of industrial goods from the EU (agricultural products are considered a special case) and from the Arab countries under the Greater Arab Free Trade Agreement. Tunisia has been a member of the WTO since 1995 and enjoys strong international relations with Europe, the wider Arab region, and Sub-Saharan Africa.

In 2019⁴⁵, Tunisia had an account balance of -\$3.27 billion. The country's exports were \$16.6 billion, with its main export partners being France (29%), Italy (17) and Germany (13%). The exports of Tunisia included clothing, semi-finished goods and textiles, agricultural products, mechanical goods, phosphates and chemicals, hydrocarbons, electrical equipment.

Tunisia imported \$23.75 billion in 2019. Its main import partners were France (17%), Italy (16%), China (8%), Germany (8%), Algeria (7%). Imports to Tunisia include textiles, machinery and equipment, hydrocarbons, chemicals, and foodstuffs.

Trade between TSR corridor countries

The data given in the table, for 2019, for the trade of the TSR corridor member states is representative over the years of the trade patterns and the exchange partners of the countries. The data shows that trade between the TSR member states is low to non-existent, with some exchange figures between Niger and Nigeria, Niger and Mali, and Tunisia and Algeria. The graphs of exports and imports between TSR countries give data up to 2017 (2018 when available). The table also shows the main differences and some of the similarities of trade patterns (hydrocarbon, commodities, mining, diversified industry, etc.) for export and imports of the TSR countries (some further details in Annex 2).

⁴⁴ Ibid.

⁴⁵ World Fact Book, CIA, Tunisia - The World Factbook (cia.gov).

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Trade of TSR countries and their trade partners						
TSR member state	Export			Import		
	Main Countries and % of export	Products	Total value of exports (\$)	Main Countries and % of import	Products	Total Value of imports (\$)
Algeria	Italy (13)	Petroleum, Natural gas, Petroleum products	39.01 billion	China (18)	Capital goods, Foodstuffs, Consumer goods	49.90 billion
	France(13)			France (14)		
	Spain (12)			Italy (8)		
	USA (7)			Spain (8)		
	UK (7)			Germany (5)		
	India (7)			Turkey (5)		
Nigeria	India (16)	Petroleum, Petroleum products, Cocoa, Rubber	95.5 billion	China (30)	Machinery, Chemicals, Transport equipment, Manufactured goods, Foodstuffs, and Live animals	43.3 billion
	Spain (10)			Netherlands (11)		
	USA (7)			USA (6)		
	France (7)			Belgium (5)		
	Netherlands (6)					
Niger	UAE (54)	Uranium ore, Livestock, Cowpeas, Onions	1.12 billion	China (19)	Foodstuffs, Machinery, Vehicles and parts, Petroleum, Cereals	1.55 billion
	China (25)			France (9)		
	Malaysia (9.9%)			UAE (7)		
	France (7)			Cote d'Ivoire (6)		
	Pakistan (5)			India (6)		
				Turkey (5)		
Chad	China (32)	Oil, Livestock, Cotton, Sesame, Gum Arabica, Shea butter	1.19 billion	China (29)	Machinery and Transportation equipment, Industrial goods, Foodstuffs, Textiles	4.28 billion
	UAE (21)			France (22)		
	India (19)			Germany (19)		
	USA (10)			Taiwan (15)		
	France (6)			India (3.9%)		
	Germany (5)			Turkey (4.8)		
Mali	UAE(66)	Cotton, Gold, Livestock	4.32 billion	Senegal (23)	Petroleum, Machinery and Equipment, Construction materials, Foodstuffs, Textiles	6.23 billion
				Cote d'Ivoire (15)		
	Switzerland (26)			China (11)		
				France (9)		
Tunisia	France (29)	Clothing, Semi-finished goods and textiles, Agricultural products, Mechanical goods, Phosphates and Chemicals, Hydrocarbons, Electrical equipment	16.60 billion	France (17)	Textiles, Machinery and equipment, Hydrocarbons, Chemicals, Foodstuffs	23.75 billion
				Italy (16)		
	Italy (17)			China (8)		
	Germany (13)			Germany (8)		
				Algeria (7)		

Source: Formulated with data from AfDB, World Bank, CIA, and others data, 2017/2018 (when available).

Exports shares (%) of TSR countries

The following graphs summarize the share (%) in exports of TSR countries from total of each of the other countries' exports. This was based on available data for the years 2014 (2013 when available) to 2017 (2018 when available) for five TSR countries.⁴⁶ These years are significant and revealing. As seen previously, the year 2019 does not show any trade between the TSR countries, with the exception of trade between Algeria and Tunisia, which previous years already showed. Regarding Chad, in addition to the lack of information, there are no exports to TSR states. Some more details are given in the Annex 2 of this report.



The graphs above show that only Niger was exporting a significant share (5 to 15%) of its exports to some TSR countries (especially Nigeria and Mali). Also, Tunisia was exporting a relatively important (3.5 to 5%) share of its exports to Algeria. The share of exports of the rest to the other TSR states remains lower than 1% over the years. This was also highlighted by a CLRT study carried out in 2009.⁴⁷

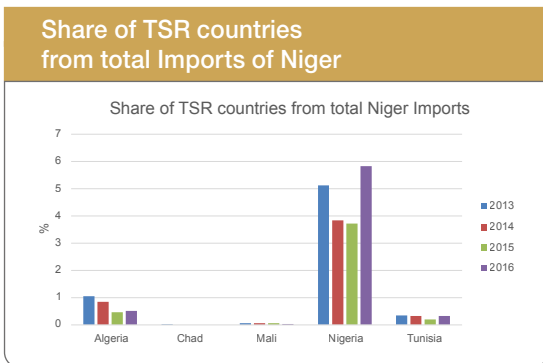
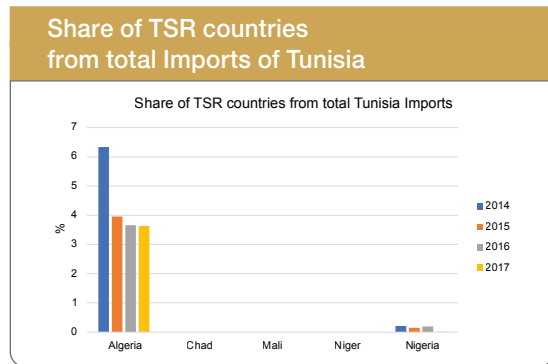
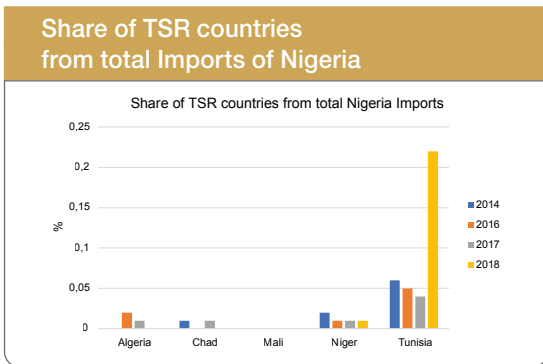
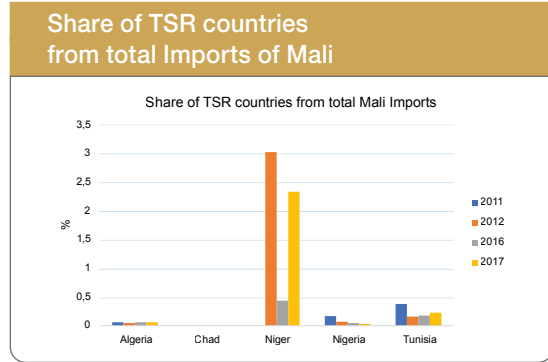
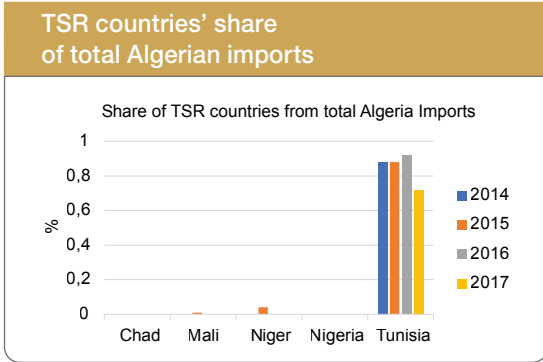
⁴⁶ <https://wits.worldbank.org/CountryProfile/en/Country/DZA/Year/2014/TradeFlow/EXPIMP#>
<https://wits.worldbank.org/CountryProfile/en/Country/MLI/Year/2011/TradeFlow/EXPIMP#>
<https://wits.worldbank.org/CountryProfile/en/Country/NER/Year/2013/TradeFlow/EXPIMP#>
<https://wits.worldbank.org/CountryProfile/en/Country/NGA/Year/2014/TradeFlow/EXPIMP#>
<https://wits.worldbank.org/CountryProfile/en/Country/TUN/Year/2014/TradeFlow/EXPIMP#>

⁴⁷ CLRT (2009).

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Imports shares (%) of TSR countries

The following graphs summarize the share (%) in imports of TSR countries from total of each of the other countries' imports. This was based on available data for the years 2014 (2013 when available) to 2017 (2018 when available) for five TSR countries. These years are significant and revealing. As seen previously, the year 2019 does not show any trade between the TSR countries with the exception of trade between Algeria and Tunisia, which previous years already showed. Regarding Chad, in addition to the lack of information, there are no imports to TSR states.



The graphs above show that only Niger was buying a noticeable share (2.5 to 6%) of its imports from some TSR countries (especially Nigeria and Mali) and that Tunisia was buying a relatively important share (3.5 to 6.5%) of its imports from Algeria. The share of imports of the rest (Algeria, Chad, Mali, Nigeria) to the other TSR states remains lower than 1% over the years. This was also the case as highlighted by a CLRT study carried out in 2009.⁴⁸

3 - Logistics performance of the TSR member countries, trade exchange, and perspectives

Logistics performance of the TSR corridor countries

The World Bank developed an interactive benchmarking tool, the Logistics Performance Index (LPI), to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance.

The LPI is the weighted average of the country scores on the six key dimensions:

- Efficiency of the clearance process (i.e., speed, simplicity, and predictability of formalities) by border control agencies, including customs
- Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology)
- Ease of arranging competitively priced shipments
- Competence and quality of logistics services (e.g., transport operators, customs brokers)
- Ability to track and trace consignments
- Timeliness of shipments in reaching destination within the scheduled or expected delivery time.

The LPI indicates the relative ease and efficiency with which products can be moved into and inside a country. The scorecards demonstrate comparative performance of all countries (world), regional and income groups. The highest score for each key dimension is 5. Logistics performance is evaluated on a 5-point scale, with 1 the lowest and 5 the highest. This index is derived from domestic sources of information, for instance on time, cost, or effectiveness of process and services. On average, one LPI point less on this scale is the equivalent of six days more to import and three days more to export.

The LPI is reported by the World Bank every two years. It is based on a worldwide survey of stakeholders on the ground providing feedback on the ease of logistics in the countries in which they operate and those with which they trade. The index combines in-depth knowledge of the countries in which they operate with informed qualitative assessments of other countries where they trade and have experience of global the logistics environment. The aggregated (for 2012, 2014, 2016 and 2018) performance and LPIs of the six TSR corridor countries are summarized in Table pages 62-64 and below. Out of 167, Nigeria has the highest rank (103) among the TSR countries, Tunisia ranks 104, Algeria 107, Mali 109, Chad 140, and Niger 148. The aggregated LPI combines the for most recent LPI editions. Scores of the six dimensions across the 2012, 2014, 2016 and 2018 LPI surveys generate a big picture to better indicate countries' logistics performance.

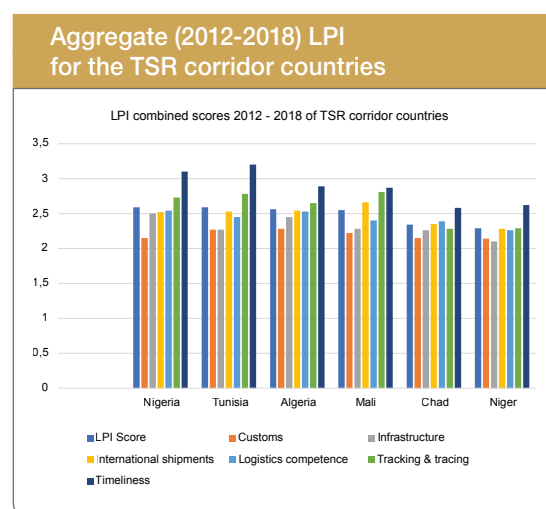
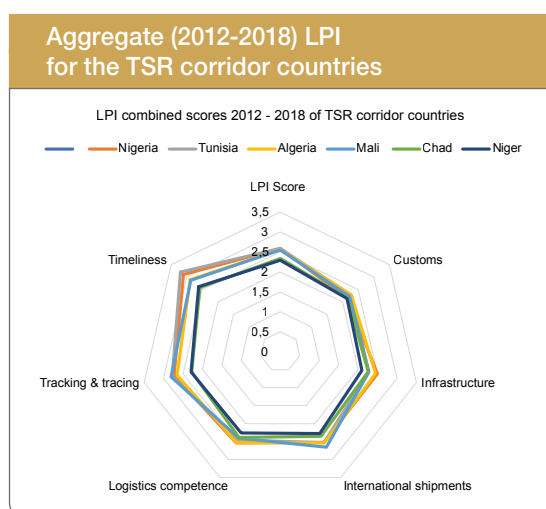
Overall, the performances are low for the six countries and show the need for progress in all key areas. The lowest scores for the countries are in customs where the TSR states score between 2.14 (Niger) and 2.28 (Algeria). Their highest scores are in timeliness where their scores are between 2.58 (Chad) and 3.20 (Tunisia), Nigeria scores 3.10. The LPI measures performance along the logistics supply chain within a country and offers two different perspectives, international and domestic. As such, it represents a powerful indication for the countries as to where they should focus efforts to improve performance.

⁴⁸ CLRT (2009).

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Aggregated (2012-2018) LPI for the TSR corridor countries								
Country	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
Nigeria	103	2.59	2.15	2.50	2.52	2.54	2.73	3.10
Tunisia	104	2.59	2.27	2.27	2.53	2.45	2.78	3.20
Algeria	107	2.56	2.28	2.45	2.54	2.53	2.65	2.89
Mali	109	2.55	2.22	2.28	2.66	2.40	2.81	2.87
Chad	140	2.34	2.15	2.26	2.35	2.39	2.28	2.58
Niger	148	2.29	2.14	2.10	2.28	2.26	2.29	2.62

Source: World Bank, Aggregated LPI 2012-2018, <https://lpi.worldbank.org/international/aggregated-ranking>



The countries would have benefitted from in-depth trade and transport facilitation audits/assessments (TTFA). The Trade and Transport Facilitation Assessment is a practical tool to identify the obstacles to the fluidity of trade supply chains. Taking the perspective of service delivery to traders, the TTFA assessment is founded on facts and data collected through a series of meetings and interviews with the main public and private participants to these international supply chains. They include customs and other border agencies, transport regulators, freight forwarders, transport operators, ports, and others. The exercise helps design plans of action to improve logistics performance among its three main dimensions: infrastructure, services, and procedures and processes.

This cross-cutting approach to trade facilitation was developed by the World Bank to effectively address the bottlenecks and inefficiencies of developing countries' supply chains. The main areas of focus include infrastructure investment, customs modernization, and border-crossing environment and modern-

ization, streamlining of documentary requirements and information flows, ports efficiency, logistics and transport services, regulation and competitiveness, transit and multimode transport, transport security.

A TTFA was carried out for Chad in 2004⁴⁹. This exercise concluded that, with respect to trade and transport facilitation, Chad's situation is as bad as it could be for a landlocked country in sub-Saharan Africa. Douala and Lagos, the closest ports to Ndjamena, the capital and main city in the country, are about 1,700 km away. Chad depends primarily on the corridor that originates from Douala, Cameroon. This corridor is intermodal, thanks to a railway link between Douala and Ngaoundere in the northeastern part of Cameroon. The secondary Nigerian corridor, originating in Lagos, is also used frequently for Chad.

Costs and delays in the transport of goods are too high, even in comparison with other landlocked African countries. Only the Central African Republic is in a similar situation with four to six weeks of transit time and about €4,500 per 20-foot container from the port of entry (Douala or Lagos). The costs of internal logistics are also too high, ranging from a minimum of 60 CFA francs per ton kilometer on the paved network to 180 CFA francs in remote areas. The cost of transport for paved roads is at least double the price observed in developed countries and for some Southern African countries while the cost for remote areas is 10 times higher.

Apart from the desk-based TTFA carried out under the present study and apart from the TTFA carried out in 2004 for Chad, there have been no TTFA as such for the other TSR countries, but the conclusions for transit countries and the impact for landlocked countries are the same. The causes of logistics costs and delays are many and, unfortunately, well distributed throughout the supply chain. Most costs and delays are incurred in transit countries. However, this does not exonerate stakeholders in the landlocked countries of their responsibilities. These responsibilities are attributable to both the public and private sectors. The TTFA case of Chad showed three main issues, which are basically the same for all TSR countries: (i) the costs and delays incurred at the port of Douala or Lagos; (ii) the consequences of the regulated management of truck freighting for transit, which entails low quality and low productivity in the road transport sector; (iii) the customs administration.

Doing Business ranking and scores of the TSR corridor member countries

Another tool used is the Doing Business assessment developed by the World Bank, particularly the 2020 edition which is based on data collected up to 2019. This is an annual study investigating the regulations that enhance business activity and those that constrain it. Doing Business presents quantitative indicators on business regulations and the protection of property rights that can be compared across 190 economies and over time. Regulations affecting 12 areas of the life of a business are covered: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency, employing workers, and contracting with the government. The indicators are used to analyze economic outcomes and identify what reforms of business regulation have worked, where, and why.

The strength of the business environment is scored based on an economy's performance in each of the 10 areas included in the ease of doing business ranking. This approach facilitates the comparison of regulation across economies. The ease of doing business score serves as the basis for ranking economies on their business environment: the ranking is obtained by sorting the economies by their scores. The ease of doing business score shows an economy's absolute position relative to the best regulatory performance, whereas the ease of doing business ranking is an indication of an economy's position relative to that of other economies. This tool was mainly looked at to draw some future recommendations for improvement of business environment which would facilitate trade development and attract investments in the countries and along the future economic corridor.

⁴⁹ World Bank (2004).

Trade exchange among the TSR corridor countries and perspectives

The existing data and the figures in the above tables and graphs show that the trade between the TSR countries is on a rather low level. It is estimated that just about 1% of Algeria's total trade is with Africa outside of the Maghreb area. The trade between Niger and the Maghreb area is reported to be approximately 10 heavy trucks per day (Annex 2). This number underestimates however the total trade since there is probably some informal trade which is not captured by the statistics.

As example of the informal activities across borders, the data collected (see Annex 3) shows that informal trade between Algeria and Mali is important in supplying northern Mali and allowing regions in the north to benefit from prices lower than if supplies came from the south of the country. This situation could contribute to explain why the poverty level is relatively low in northern Mali (especially in Kidal). Informal trade is also one of the main activities in terms of employment, particularly in the northern part of Mali.

Economically, even without considering the Algerian subsidies on transport and goods, it is understandable that Kidal, and even Gao, gravitate toward Algeria⁵⁰ because transit times are between seven and eight days to Algiers port as opposed to at least 17 days to Dakar (Senegal) or via the southern road to Abidjan (Côte d'Ivoire) or Tema (Ghana). In addition, the cost of shipping transport is much lower at ports in North Africa than those in West Africa.⁵¹

Any project for the evolution of the TSR road corridor towards an economic corridor and modernizing the border crossings, especially when supported by international development partners, should properly address the informal trade and the adequate integration of the population benefiting from the related activities into the mainstream regional economic development.

It is not necessarily the volume of trade between the countries that matters, as this will develop over time when the TSR countries respond to the needs of each other as well as to their own domestic economic development along the corridor. What matters at this stage is rather the trade logistics, as well as the volume of goods that transits between the TSR countries (or some of them) whether the goods are destined to or originating from one of them. What matters is the effectiveness and efficiency of transport and transit facilitation and the supply chain and logistics, especially in terms of time and cost.

With measures (hard and soft) to address the constraints of the trade and transport facilitation and the performance of the logistics and the supply chain, trade will develop and increase between the TSR corridor countries and from the rest of Africa. These measures should include transforming corridor to support the AfCFTA. Better performance of the corridor will trigger the inter-continental trade and will position the TSR corridor as a main trade link between northern, central, and western Africa. The AfCFTA will certainly increase the commitment of the TSR countries to move towards efficient trade and economic corridor and ultimately towards effective regional economic integration.

The perspectives and the main products that are potentially marketable between the TSR corridor countries (and to the rest of Africa) were analyzed and discussed in a CLRT study of 2009⁵² and reviewed and updated in the analytical work here. The present study looked also at the non-tariff barriers (sanitary and phytosanitary, technical barriers to trade, pre-shipment inspection, contingent trade protective measures, quantity control measures, price control measures, other measures, export-related measures) and their effects, especially given the lack of harmonization and lack of proper exchange of information, use of ICT and risk management. The main products recognized as advantageously marketable between the TSR countries are those exported by each country in significant quantities over several years between these countries.

As highlighted by the analytical work of the present study, once the identified non-tariff barriers are

⁵⁰ CLRT (2009).

⁵¹ Algeria–Mali Trade: The Normality of Informality, Sami Bensassi, Anne Brockmeyer, Mathieu Pellerin, Gaël Raballand, Democracy and Economic Development, Economic Research Forum, 2015, <http://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>.

⁵² CLRT (2009).

properly addressed through the suggested trade and transport facilitation measures, trade among the TSR countries will drastically increase. As pointed out also by the CLRT study, the opportunities for development are in two main areas: (i) for the sub-Saharan countries: export of mining, agricultural and food products, and import of manufactured goods: mechanical, electricity, chemicals and pharmaceuticals, textiles, construction materials, agri-food; (ii) for Algeria and Tunisia: export of manufactured goods: mechanical, electrical, chemicals and pharmaceuticals, textiles, construction materials, agri-food, import of mineral, agricultural and food products, and direct investment in water resources, energy, mining, transport logistics.

To adequately address the development prospects of trade between the TSR countries (including properly addressing the informal trade), and as shown in the chapters below, the support from international development partners would help develop regional value chain, especially with the lessons learned from the Covid-19 crisis and the expected shift in global trade and the restructuring of the global value chains.

TRADE AND TRANSPORT FACILITATION ASPECTS IN TSR CORRIDOR AND TSR DIAGNOSTIC AND PERFORMANCE ASSESSMENT



The previous chapters provided the data, information, and statistics available on the TSR corridor and its member states. This, in addition to the content of the present chapter on the soft aspects, gives the basis for assessing the performance of the TSR corridor.

1 - Trade, transit and transport facilitation aspects and issues in the TSR corridor

The efforts made on the corridor so far, since the 1970s, have mainly focused on road infrastructure. Despite remarkable achievements in highway construction, there is still a lot to be done on the road missing links, road maintenance policies, funding and sustainability, road safety, speed limits, the port accesses, the dry ports and customs depots, the border crossings. Regarding transport, transit and trade facilitation, the previous chapters, and the available evidence from different documents (some listed in the references and bibliography at the end of this report) as well as the diagnosis they provide have shown that much is still to be done to address the issues given below.

Customs processes, exchange of information, risk management

Mali, Niger, and Tunisia are using ASYCUDA World. Chad and Nigeria are using ASYCUDA ++ platform. Algeria is using a customized information system (SIGAD). In all TSR countries, customs agents are responsible for the fight against fraud, which includes value and tariff treatment. As a result, the physical inspection rate is high with relatively low detection yields (on the order of one%). No harmonization of the procedures and no use of ICT and exchange of information are established between the TSR countries as a group. Agents are also encouraged to be more circumspect with certain country origins or certain types of products. Modernized risk management would allow for faster treatment while eliminating the disadvantages of relying too much on the individual judgment of the agent.

Trade promotion and facilitation

There does not seem to be any systematic trade promotion for the TSR corridor, although there is growing political willingness to go further for a future economic integration. The countries have heavily invested (and are still investing) in road connectivity infrastructure, but they are lacking a trade promotion strategy at the national and regional levels which would also help promoting an inclusive policy dialogue among all categories of stakeholders. The landlocked countries, Chad, Mali, and Niger, have access to multiple regional ports. Therefore, Algeria, Nigeria and Tunisia must improve the quality, speed, reliability, and cost-competitiveness of their transport network and services, including the ports to advance their strategic partnership with the three landlocked countries. The three coastal countries have comparative advantages in the region, which they can capitalize upon to develop themselves as trade and transport gateways in the sub-region.

Logistics services and capacity building in these services

The previous chapter highlighted the constraints associated with logistics infrastructure and services. Lack of capacity and competencies in the logistics business and lack of professional training for international road transport are also a problem for the TSR corridor countries. International organizations have recommended that Algeria introduce a framework law that includes the priority given to the creation of

a profession dedicated to logistics. This would improve the logistics services in the future and would eventually help some other countries, such as the TSR corridor countries, to benefit from the capacity building.

Trucking industry and transport services

The trucking industry is not regulated and, when it is not handled by large numbers of individual small truckers, it is controlled by cartels. In most cases trucking fleets are old and lack technical inspections. They are also highly unionized (Annex 1 provides some details on road freight industry road transport costs). Presently, 80% of all **Mali**-bound traffic moves along the corridor by road. Since the **trucking industry** in Senegal is dominated by a large number of very small operators, who own and operate an obsolete **trucking** fleet, most of the traffic (~90%) to **Mali** is carried on Malian **trucks**. Mali has reportedly upgraded its trucking fleet and has a large capacity to make the long trip from Dakar to Bamako.

WAEMU/UEMOA reported that transport services, and in particular the road transport sector, which accounts for about 90% of intra-trade, are not performing well in West Africa due to lack of enforcement of the rules and the low efficiency of the activities of freight transport companies. Specific challenges include dilapidated fleets, numerous non-tariff barriers to traffic flow along road routes, at ports and at border crossings, as well as the discontinuity of the tertiary road network, and difficulties in implementing countries regulations for facilitation and for protection of road assets (Axle Load Regulation 14 of ECOWAS).

Axle overload hampers the development of road transport in the medium term and slows support for trade and regional integration since road transport accounts for more than 80% of the traffic of passengers and goods in the WAEMU/UEMOA area. With an average truck overload rate of more than 70%, the average lifespan of the roads is reduced from 15-20 years to 5-7 years, with annual investment losses estimated between 30 and 45 billion CFA francs.

Annex 1 details some aspects of the road freight industry, its structure, and the issues of the trucking transport in the TSR countries (formal, informal truck transport, fleet condition, number of trucks and trade volumes along the corridor and crossing the different border posts of the TSR).

In Algeria, road freight transport accounts for 86% of total land freight transport and represents the second most-used transport modality for import and export activities, following maritime transport. Freight transport by rail is far less significant.⁵³ In 2019, Algeria counted over 3,500 trucking companies of different sizes. The size of the companies varies from small to a large companies with sales of some \$200 million annually. Algeria counts, also, a large number of individual truckers operating on different roads and different regions of the country. Most of these truckers are informal operators acting in the informal economy. Not much information is available on the condition and age of the trucks. There however seem to be no incentives, or specific programs, to renew trucking fleets.

In 2016, road freight transport accounted for almost half the total number of enterprises in the Tunisian transport and storage sectors. The total number of enterprises in road freight transport grew from 42,979 in 2008 to 51,546 in 2016. The transport and storage sector accounted for about 14.6% of total private-sector enterprises, compared to 15.1% in 2008. In Chad, the trucking industry is characterized by: (i) very small companies with an average of 3.5 trucks; (ii) obsolete equipment (at least 10 years); (iii) lack of funds for maintenance; (iv) low usage rate due to significant excess capacity; (v) trucks that do not cover more than 2,300 km per month on average, compared to the European average distance of between 10,000 km and 20,000 km, depending on the activity.

Niger has repeatedly attempted to abolish the system of distribution of traffic rights, which is, by definition, non-competitive. A 2007 government draft decree stipulates that the 2/3-1/3 rule that distributes

⁵³ World Bank (2016).

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road transport between local transport companies and transport companies in transit countries remains in force, but that all operations constituting the Niger quota (2/3) are open to competition, as opposed to the turn-of-the-go system. However, the transport associations opposed the decree which remained a dead letter).⁵⁴

Road freight transport is relatively well organized in Nigeria. Created in 1988, the Nigerian Association of Road Transport Owners (NARTO) is the umbrella body for commercial vehicle owners in Nigeria in haulage, logistics, cargo, movement of passengers, and all forms of transportation with the aim of protecting their interest. It includes over 3,000 registered members (trucking companies and truckers) and covers over 156,000 trucks/commuter vehicles in service. Almost 90% of the trailers on Nigeria's roads are second-hand but still considered in working condition. There are no incentive plans for fleet renewal.

Cost and time of transport and transit through the supply chain, and ports congestion

It is reported that the average time for customs clearance of a container at the port of Algiers and at the dry ports is 3 weeks, which is too high compared to international standards. Most of the delay (over 60%) is upstream of the exchange of documentation between the freight forwarder and the importer. There are several main reasons for the delays, including the documentary control by the home bank, the lengthy time for customs clearance itself, particularly in the absence of a customs risk management system and the low use of computerized systems.

Similar delays are also reported at the port of Lagos. Lagos has long been dealing with excessive traffic congestion around the port area and high dwell times for ships waiting outside the harbor. Lack of modernization in Customs procedures have particularly led to significant dwell times. Port congestion and delays have resulted in additional costs for importers and exporters, as well as freight forwarders and shipping lines.

Road transport cost for freight is too high by international standards. Port fees, approximately \$1,000 for a 20-foot container as reported, are extremely high. The total cost including port expenses, road transport and other formalities is 50% higher than in East Africa.

A World Bank 2009 study⁵⁵ found that trucking prices for an articulated vehicle are over \$2 per km for the most competitive markets (such as in East and Southern Africa), and well over \$3 per km for the least functional ones (as in West and Central Africa). Accordingly, road transport is the largest component of the total transport cost between the overseas markets and the economic centers of the landlocked countries. Fostering a competitive and efficient trucking industry is therefore critical to growth and development. The World Bank, which is presently considering financing for the Zinder-Agadez road in Niger as part of the TSR corridor, highlighted that transport costs are unnecessarily high in Niger because roads are not maintained, roadblocks are common, and competition in the trucking sector is limited. Cross-border trade is expensive and inefficient due to the difficulty of obtaining import and export licenses.

The price of road freight transport in Tunisia is relatively high, despite the relatively good road infrastructure. According to a World Bank survey (2016), the cost of road freight transport was \$0.22 per ton-kilometer in Tunisia. This is above the averages found in central, eastern, or western Africa. Fragmentation of the sector, excessive informality, the dominance of small and informal transporters, and the lack of optimization along the freight transport chain, with a high proportion of empty returns, explain in part these high costs.

⁵⁴ Transport prices and costs: the need to revisit donor's policies in transport in Africa, P. Macchi, Gael Raballand, 2009, <https://www.semanticscholar.org/paper/Transport-Prices-and-Costs>.

⁵⁵ World Bank (2009).

National single window

The purpose of a single window is to provide a platform and processes for a paperless (electronic) exchange of trade information between participants in the trade process, largely accomplished through a single electronic location. A computerized single window is made up from an organic mixture of the collaborative efforts of all the parties involved in a nation's international trade activities. It uses the latest ICT techniques; international data and messaging standards together with simplified, harmonized, and remodeled information systems for data exchange to replace traditional paper-based information. It also deploys sophisticated rules and procedures for funding, governance, business, and marketing models, planning and project management, and for effective collaboration between all the parties involved in the single window, at each of its stages.

A single window for foreign trade formalities interconnects, around a central platform or through other mechanisms, all the stakeholders in pre-clearance, clearance, and post-clearance formalities, with a view to facilitating formalities relating to goods removal operations. Logistics stakeholders may be integrated into this type of single window. From the government side, in addition to customs, the stakeholders typically include all agencies that have a trade compliance responsibility, licensing, permit issuing and/or inspection responsibilities, principally including Ministry of Trade (and Economy); food and drug agencies; Ministry of Health; Ministry of Transport; quarantine agencies; Ministry of Finance/Treasury/Tax and Excise/the central bank; security agencies/defense organizations. ICT is demonstrably becoming progressively more important to effective trade facilitation. The objective of ICT in this context is to automate reengineered business processes by replacing the paper documents, original signatures, cash payments and face-to-face meetings involved in obtaining import and export approvals from government agencies, and from customs processes (formalities and/or regulatory requirements).

Algeria has no single window yet.⁵⁶ In December 2021, a cooperation agreement was signed between the Algeria General Directorate of Customs and the Korean International Cooperation Agency, to implement a single window project for customs. A recent World Bank work⁵⁷ on logistics in Algeria recommended computerized single window to respond to the need to harmonize and simplify the exchange of information between government and traders. The work highlighted that it is likely that Algeria will have higher transit times than comparable countries until the two major plans that have the greatest impact on port logistics have been put in place: (i) customs modernization, particularly in its information systems and risk management components; (ii) the computerized single window.

Nigeria has a National Single Window (NSW) Trade Portal⁵⁸. This is a cross-government website that offers a single portal for trade actors, both Nigerian and international, to access a full range of resources and standardized services from different Nigerian government agencies. Although the portal is already installed, all functions have not yet been deployed and fully operational. The NSW Trade Portal offers a platform for users to:

- Consult trade information online (tariff search, arrived vessels, regulatory guidelines)
- Submit trade documents and track their trade transaction status online
- Pay online through e-payment facilities using credit card (this function to be deployed in a next phase)
- Access helpdesk, trouble tickets, and other support services online (for registered users)
- Quickly reference important information on different government agencies involved in trade matters, as well as link to their websites through a convenient hub.

Niger does not have a single window system for international trade. It has however established through the Centre for Business Formalities (CFE) of the Niger Chamber of Commerce, Industry and Crafts a one-stop shop designed to facilitate and simplify the process.⁵⁹

⁵⁶ In December 2021, a cooperation agreement was signed between the Algeria General Directorate of Customs and the Korean International Cooperation Agency, to implement a single window project for customs.

⁵⁷ World Bank (2018a).

⁵⁸ Federal Government of Nigeria, Single Window for Trade, Single Window Trade Portal, <https://trade.gov.ng/en/>.

⁵⁹ <https://niger.eregulations.org/>

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Tunisia has integrated its automated platform SINDA 2000⁶⁰ with its new concept “Liasse Unique” linking the Ministry of Trade, Ministry of Transport, and the Central Bank to enable the exchange of computerized data. The Tunisia Single Window for Trade includes Ministry of Transport, Export Promotion Center (CEPEC), Central Bank, General Directorate of Customs, Tunisia Foreign Trade Insurance Company (CO-TUNACE), and Tunis Chamber of Commerce and Industry. The Single Window for Trade ensures: (i) the dissemination of information (on international trade, international markets, bilateral and multilateral agreements, procedures and modalities of foreign trade, formalities and procedures of international transport, customs procedures and regulations, banking and foreign exchange regulations, practical terms and conditions for the settlement of export transactions); (ii) the delivery of certificates of origin; (iii) the formalities of foreign trade insurance and foreign exchange risk coverage; (iv) the delivery of certificates of declaration of the formation of international trading companies.

Mali established a computerized international trade and transport platform in 2018 (Guichet Electronique du Commerce Extérieur et des Transports, GUECET)⁶¹. This new structure was put in place by the Technical Unit of Business Climate Reforms (CTRCA) as part of the implementation of the Strategic and Operational Plan 2016-2018 to improve the business climate in Mali. The objective of the single window was to modernize and boost trade. It aims to link all actors (public and private) with each other with a view to easing and simplifying the administrative procedures of foreign trade and transport and harmonizing procedures for the benefit of the operators and public services concerned.

Chad does not have its own single window system for international trade. It relies however, on the Chad-Cameroon corridor, on the single window set by Cameroon in 2012 (Guichet Unique du Commerce Extérieur, GUCE)⁶². Chad established, however, a single window in 2010 under the Ministry of Trade and Industry for all administrative formalities related to establishing enterprises and new businesses and for foreign investment in Chad.

2 - Institutional, legal, and regulatory context in support of corridor performance

Legal and regulatory aspects

International transport is a complex activity, encompassing technical, political, legal, strategic, social, economic, and environmental aspects, so it is extremely difficult to deal comprehensively with all the components of transport facilitation in one single legal instrument. This is the reason why, in principle, each component (infrastructure, transport operation, crew, transport means, cargo, passengers, traffic rules) is covered by at least one legal instrument. Trade facilitation is a generic term variously applied to the legislation, regulations, procedures, and information technology system that integrate domestic supply chains with global supply chains.

In a review of legal instruments on transport and trade facilitation in Sub-Saharan Africa, Grosdidier de Matons⁶³ outlines the following characteristics of the relevant legal instruments: (i) they are international or written agreements between two or more sovereign or independent public law entities such as states or international organizations, intended to create rights and obligations between parties; (ii) they are governed by international law; (iii) they are designated as treaties, conventions, agreements, protocols, covenants, compacts, exchange of notes, memoranda of understanding, agreed minutes, letters, etc.; (iv) they may be bilateral or multilateral. Bilateral treaties are contracts in which two parties balance their claims on a specific matter. Multilateral treaties set rules of law to be observed by all parties to the treaty, in their joint or individual interest; (v) a treaty is a contract and must be interpreted as such. Enforcement of its terms and conditions by a government agency is more than the implementation of domestic law provisions.

⁶⁰ Sinda – Portail web officiel de la Douane Tunisienne, <https://www.douane.gov.tn/sinda/>.

⁶¹ <https://mali-web.org/economie/mali-numerique-2020-le-guecet>.

⁶² <https://www.guichetunique.org/>.

⁶³ SSATP (2014).

Institutional aspects

UN economic commissions, the AU and other regional bodies recommend that governments establish and support national trade facilitation bodies with balanced private and public sector participation in order to identify issues affecting the cost and efficiency of international trade; develop measures to reduce the cost and improve the efficiency of international trade; assist in the implementation of those measures; provide a national focal point for the collection and dissemination of information on best practices in international trade facilitation; and participate in international efforts to improve trade facilitation and efficiency. Any proposals for institutional arrangements to enhance transport and trade facilitation along transit corridors should focus particularly on the responsibilities of stakeholders (government agencies or private sector) and the legal instruments employed. The emphasis should be on assessing, through adequate legal instruments, the structure effectiveness in addressing key constraints to the smooth movement of goods and passengers along transit corridors. This includes assessing the funding mechanisms of corridor institutions with a focus on sustainability and the contributions of key stakeholders.

Support for corridor performance

A corridor is a system made up of several components, including infrastructure (roads, railways, ports, etc.), transport and logistics services and regulations (typically influenced by policy choices of and financing from the public sector). It is important that policymakers appreciate the linkages between these components, particularly as the overall performance of a corridor is determined by the weakest component. Well-performing trade and transport corridors can have significant impacts, reducing trade costs and enhancing the competitiveness of cities, communities, regions, and countries, especially where they are landlocked. International experience on trade and transport corridors provides guiding principles to all who work on development of corridors and enable them to better appreciate both the importance of good holistic corridor design and the challenges of and possibilities for improving performance and reducing trade costs.

3 - Transboundary issues, conventions status, sub-regional groupings

Transboundary issues regarding axle loads and vehicle insurance

Transboundary aspects, particularly the axle load, vehicle dimensions, inspection certificate and insurance remain major issues to be addressed, collectively and bilaterally, by the TSR corridor countries. The issues are also exacerbated by the fact that the countries belong to different separate sub-regional groupings which do not always adopt the same rules.

International conventions enforcement

There are agreements, conventions, and protocols that the TSR corridor countries are signatories to through sub-regional groupings or under bilateral agreements. It is reported however that there are limitations to the applicability of these arrangements, and the countries tend to use different ones although often not consistent with their internal rules. Several bilateral agreements signed between the member countries of the TSR cover international transport and transit of goods and passengers, tariffs, setting up bilateral customs commissions, etc. Although they all aim towards the abolition of non-tariff barriers and the creation of an economic free zone, their application and importance have been spotty.

When dealing with conventions, treaties and agreements, it is important to address five important related aspects: (i) the conditions of enforceability of a treaty or other international instrument in the territory and in the legal regime of a state party to such an instrument; (ii) the ranking of legal norms (treaties and

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domestic law) and make sure which prevails in case of possible contradicting interpretations; (iii) whether treaties, agreements, and other international instruments are actually enforced; (iv) whether treaties, agreements, and other international instruments are actually enforced; (v) whether treaties and other agreements deal with issues of public law (customs facilitation, traffic police, safety, etc.) or whether they aim to modernize and streamline private law, commercial practice, and procedures (carriage contracts, insurance, etc.); and (vi) (as a consequence) whether they are oriented toward public administration by public agents or toward the association of the community of traders and carriers for viable and sustainable development of the transport system.

At the borders, the problems reported are due to non-application of the TIR convention (by some member countries) and/or to overly rigorous and narrow interpretation of the regulations which causes hurdles and delays on the border crossings (see also Annexes 1 to 3 and Annex 6). The TIR (Transports Internationaux Routiers) system began in Europe in 1950s. It provides a reliable system based on a single manifest (carnet TIR) and a chain of guarantees, which eliminated duplication of procedures and sped up movement through borders. This became the Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention, 1975) and is now one of the most successful international transport conventions and is so far the only universal Customs transit system in existence.

Regarding non-physical barriers, the sub-region is subject to an excessive number of controls and check-points, both legal (for national security reasons) and illegal, which slow down traffic while, in some cases, involve extorting money from truckers. This is exacerbated by the lack or poor availability of telecommunication services, fuel, repair facilities, accommodation, food, drinking water, etc. along the roads, which increases the risks and results in unduly high transport cost and delivery time of goods.

Data, information, and statistics collecting and treatment, and knowledge-sharing

There is no systematic database compiling all information, data and statistics related to transport, transit, and trade in the TSR corridor. There is also no knowledge-sharing among the TSR corridor member states about best practices for regional economic development. This is maybe due to the existence of different political, economic, and monetary groupings that the TSR countries are separately (or some of them) members of. It is also due to lack of harmonization and minimal use of ICT.

Status of relevant international conventions

Table below summarizes the status of some of the relevant international conventions for the TSR corridor countries. These conventions and treaties deal mainly with road transport, customs, border crossing and road safety, they are the following:⁶⁴

- The TIR convention (Transport International Routier), which is the most widely used system for international road transport; it allows the movement of freight in customs transit through several countries (1975).⁶⁵
- The CMR convention (Convention on the Contract for the International Carriage of Goods by Road), which covers contracts for international road freight transport. UN convention that was signed in Geneva in 1956, and relates to various legal issues concerning transportation of cargo by road.⁶⁶
- The ATP convention (formally, the Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be used for such Carriage), which governs the international transport of perishable foodstuffs and special vehicles (UN treaty of 1970).⁶⁷
- ADR (formally the European Agreement of September 1957 concerning the International Carriage of Dangerous Goods by Road), is a 1957 UN treaty that governs transnational transport of hazardous materials. From 1 January 2021, the treaty will be renamed Agreement concerning the International Carriage of Dangerous Goods.

⁶⁴ For further information on the conventions, refer to : https://www.sum4all.org/data/files/1_a_review_of_international_agreements_and_other_instruments_to_achieve_sustainable_mobility.pdf.

⁶⁵ <https://unece.org/legal-instruments-field-transport-28>.

⁶⁶ https://treaties.un.org/doc/Treaties/1961/07/19610702%2001-56%20AM/Ch_XI_B_11.pdf.

⁶⁷ https://unece.org/DAM/trans/main/wp11/ATP_publication/ATP-2016e_-def-web.pdf.

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- The International Convention on the Simplification and Harmonization of Customs Procedures, or Kyoto convention (revised in 1999).
- The Geneva Convention on harmonization of goods control at borders (1982).
- The convention on road traffic (1968).
- The convention on traffic signaling (1968).

International Conventions signatories for TSR corridor countries

Convention/ Treaty	TSR Corridor Countries					
	Algeria	Chad	Mali	Niger	Nigeria	Tunisia
TIR	Yes (suspended membership)					Yes
Kyoto	Yes	Yes	Yes	Yes	Yes	Yes
CMR						Yes
ATP						Yes
Road traffic				Yes		Yes
ADR dangerous goods					Yes	Yes
Harmonization of goods control at borders						Yes

Only Tunisia is party to all considered conventions and treaties, and only the Kyoto convention (International Convention on the Simplification and Harmonization of Customs Procedures) is ratified by all TSR corridor countries.

Membership in WTO and WCO

As shown in Table below, the TSR corridor countries are all members of The World Customs Organization (WCO). In the case of the World Trade Organization (WTO), except for Algeria which is observer and in the process of accessing to membership, all other TSR corridor countries are full members.

Membership WTO and WCO for TSR corridor countries

Organization, Grouping or convention	Detail	TSR Corridor Countries					
		Algeria	Chad	Mali	Niger	Nigeria	Tunisia
WTO	World Trade Organization	Observer	Yes	Yes	Yes	Yes	Yes
WCO	World Customs Organization	Yes	Yes	Yes	Yes	Yes	Yes

Sub-regional groupings

Apart from the CLRT of which all six countries are members, and from the CEN-SAD of which five of the TSR countries (except Algeria) are members, the TSR corridor countries are members, in most cases separately, of some five different sub-regional groupings as shown in Table below.

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Membership Regional Organizations for TSR corridor countries

Organization or Grouping	Type	TSR Corridor Countries					
		Algeria	Chad	Mali	Niger	Nigeria	Tunisia
WAEMU/UEMOA (West African Economic and Monetary Union)	Mission: Economic integration Creation: 1994 Headquarters: Ouagadougou Members: 8			X	X		
ECOWAS (Economic Community of West African States)	Mission: Economic integration Peacekeeping Creation: 1975 Headquarters: Abuja Members: 15			X	X	X	
CEMAC (Economic and Monetary Community of Central Africa)	Missions: Economic integration Creation: 1994 Headquarters: Bangui Members: 6		X				
CEN-SAD (Community of Sahel-Saharan States)	Missions: Overall economic union Creation: 1998 Headquarters: Tripoli Members: 28		X	X	X	X	X
AMU (Arab Maghreb Union)	Missions: Economic and political integration Creation: 1989 Headquarters: Rabat Members: 5	X					X
CLRT (Trans-Saharan Road Liaison Committee)	Missions: Study and implement road links of the TSR countries Creation: 1966 Headquarters: Algiers Members: 6	X	X	X	X	X	X

Belonging to separate sub-regional institutions makes it difficult for TSR corridor countries to harmonize customs, tax and administrative laws. The landlocked countries part of the WAEMU/UEMOA (Mali and Niger) and CEMAC (Chad) are subject to trade, customs and tax rules preventing them from establishing new bilateral trade agreements outside their area of membership without prior approval from the regional institutions. This results also in inadequate banking systems and transfer procedures between different sub-regional groupings, as well as in lack of exchange of relevant trade and transport information and knowledge-sharing. Some of the TSR corridor countries are also part of bilateral agreements with third party countries. Algeria and Tunisia have Free Trade Agreements with the EU and are also part of the Euro-Mediterranean Partnership (EuroMed).

The CLRT Committee

The common grouping of the TSR corridor countries is the CLRT (Comité de Liaison de la Route Transsaharienne in French, The Trans-Saharan Road Liaison Committee). The CLRT was established in 1966 following the resolution (No.61 of 1964) of the United Nations Economic Commission for Africa (UNECA) which suggested that opportunities for improved trade across the Sahara be explored in their economic, technical, and financial aspects. With over 50 years of existence, the CLRT is today one of the oldest committees on the African continent. The CLRT, originally composed of Algeria, Mali, Niger, and Tunisia, was later joined by Nigeria and Chad. Its objective is to study and implement the trans-Saharan road link between the territories of the member states with an eye toward:

- Implementation of member states' directives,
- Helping to find funding from national, regional, and international financial institutions

- Coordination and coherence of the RTS's road alignments between member states,
- Sharing experiences in road infrastructure development and maintenance
- Collection and sharing of technical, economic, and scientific information with countries and institutions interested in the Trans-Saharan project

The Committee is composed of one representative and one alternate from each of the member states. The representatives and the alternates are technical responsible of their respective road administrations. Headed by a Secretary General, it meets every six months, alternately at its headquarters in Algiers and then in a CLRT member country. The statutes of the CLRT have not been ratified by the countries concerned. They were simply approved by the representative of each of the member countries on the Committee. In the statutes, the Committee budget and funding are organized as follows:

- The Committee's resources come from: annual fees from member states and grants from bilateral and multilateral donors
- The Committee's budget is prepared and executed by the Secretary General
- The Committee's budget is approved by the member states and no changes can be made during the fiscal year without the Committee's approval.

The CLRT secretariat is run by a Secretary General with no supporting staff and no real budget. The countries dues are reportedly not paid. This financial situation is not sustainable. The creation of the CLRT has revealed itself over the years as important mechanism for the initiation and implementation of effective cooperation among members countries.

4 - Landlocked and transit countries specificities and needs

Landlocked and transit countries

Landlocked countries rely on transit overland through neighboring countries to access international markets. High transportation costs and long processes impede the economic and social development of these countries. Shortening distance to the sea and ensuring transport connectivity (soft and hard) is fundamentally important. Freight transport costs are too high in the sub-region by international standards. However, transport costs alone do not account for trade costs. It is important to take other important aspects into account in supply-chain performance, such as delays, reliability, or service quality, all of which depend on what could constitute the transit system. The "transit system" refers to the infrastructure, legal framework, institutions, and procedures serving truckers. The performance of the various components of this system explains in large part the outcome in trade and supply-chain connectivity.

Specificities and needs for facilitation and well-functioning transit system

Landlocked countries need appropriate policies to enhance transport connectivity, including within the countries, which will support regional economic integration and linkages to the global economy, and will stimulate increased trade and attract foreign direct investment leading, to political stability, prosperity, improved people's welfare and sustainable development. In practice, a transit system requires:

- Physical cross-border infrastructure
- An enabling framework for cross-border operation: specific (bilateral or regional) agreements, typically a transport treaty for the movement of goods and trucks. This agreement may include mutual recognition of insurance
- Adequate transit procedures to implement the agreements
- Capable national agencies to implement the system
- Competent service providers.

The security situation in the region put aside, there is room for improvement in the TSR corridor to comply with these requirements for landlocked and transit countries and to properly respond to the needs for

trade and transport facilitation. The cornerstone of a transit system is the customs regime in both transit and destination countries. Transit is a clearance regime, which is developed to facilitate overland trade over long distances and potentially several territories. And in many instances clearance at the border may not be an efficient solution.

5 - Overall economic corridor coordination and management, monitoring and evaluation

Complexity of coordination of economic corridors

Trade and transport facilitation implies interventions in three broad areas: trade infrastructure (in which the private sector is increasingly involved for funding and operations), trade and logistics services (which are primarily provided by the private sector), and procedures and institutional issues (which are primarily rules set by the public sector, to regulate public or private processes). Most of the interventions required to improve the competitiveness of trade are relevant to a specific geographic context, based on an international framework for trade facilitation. The combination of the geographic focus and the inclusion of all stakeholders involved in trade and logistics is the reason for the success of the corridor approach as an effective and focused way to address transport facilitation challenges, for both intra-regional and international trade (including transit).

Proper monitoring and evaluation

The corridor management activities have the objective of supporting the establishment of corridor institutions, promoting an inclusive policy dialogue among all categories of stakeholders. Proper management requires also adequate monitoring and evaluation mechanisms that allow to track and measure the results achieved against the set objectives and to propose actions and orientations to reset realistic objectives or to correct the situation to achieve the targeted objectives. The TSR corridor governments have not established national trade facilitation bodies. Supported with balanced private and public sector participation, these bodies would address and coordinate all aspects of transport, transit and trade facilitation aspects in the corridor, to collect and analyze all relevant data, information and statistics and to monitor and evaluate the efficiency of the corridor and its components. The CLRT, as defined by its present statutes, does not perform these tasks, apart from the physical road infrastructure.

Corridor performance indicators

The use of performance indicators is important to the planning process and later the regular monitoring and evaluation exercise. The indicators can support, guide, and justify decisions made by corridor groups, especially as high accountability and transparency are critical to success. They should be helpful in communicating to users and to policymakers the course of action that will improve the movement of goods and people and hence the overall performance of the economic corridor.

Important characteristics of indicators are that they should be measurable, efficient, able to be forecast, and easy to understand.⁶⁸ International best practice proposes assessing the performance of corridors at three levels: infrastructure, quality of services, and shipment of goods. Apart from the kilometers of roads following given alignments and standards in each of the member countries, the TSR corridor does not have any performance indicators to measure the many other hard and soft aspects of the corridor and to benchmark the TSR corridor in comparison with the international experience and best practices.

⁶⁸ World Bank (2006).

NEED FOR IMPROVING THE TSR CORRIDOR PERFORMANCE

The previous chapter highlighted the issues relating to transport, transit, and trade facilitation in the TSR corridor, and the aspects that are hampering the corridor performance. The political will of the governments of the TSR corridor is reflected in the massive investments in the road infrastructure so far and their willingness to implement the actions needed to achieve regional economic integration. The present chapter gives some of the improvements needed and issues to be addressed in phases.

1 - Evolution from road corridor to economic corridor, to regional economic integration

The TSR corridor governments are aiming at achieving sub-regional economic integration. This is in line with AU goals and the support strategies of the international development partners, UN agencies and international financial institutions (IFIs). The AfDB has made regional economic integration one of its High 5s of its overarching twin objectives of the ten-year strategy (TYS, 2013-2022) which are the achievement of inclusive growth and the transition to green growth.

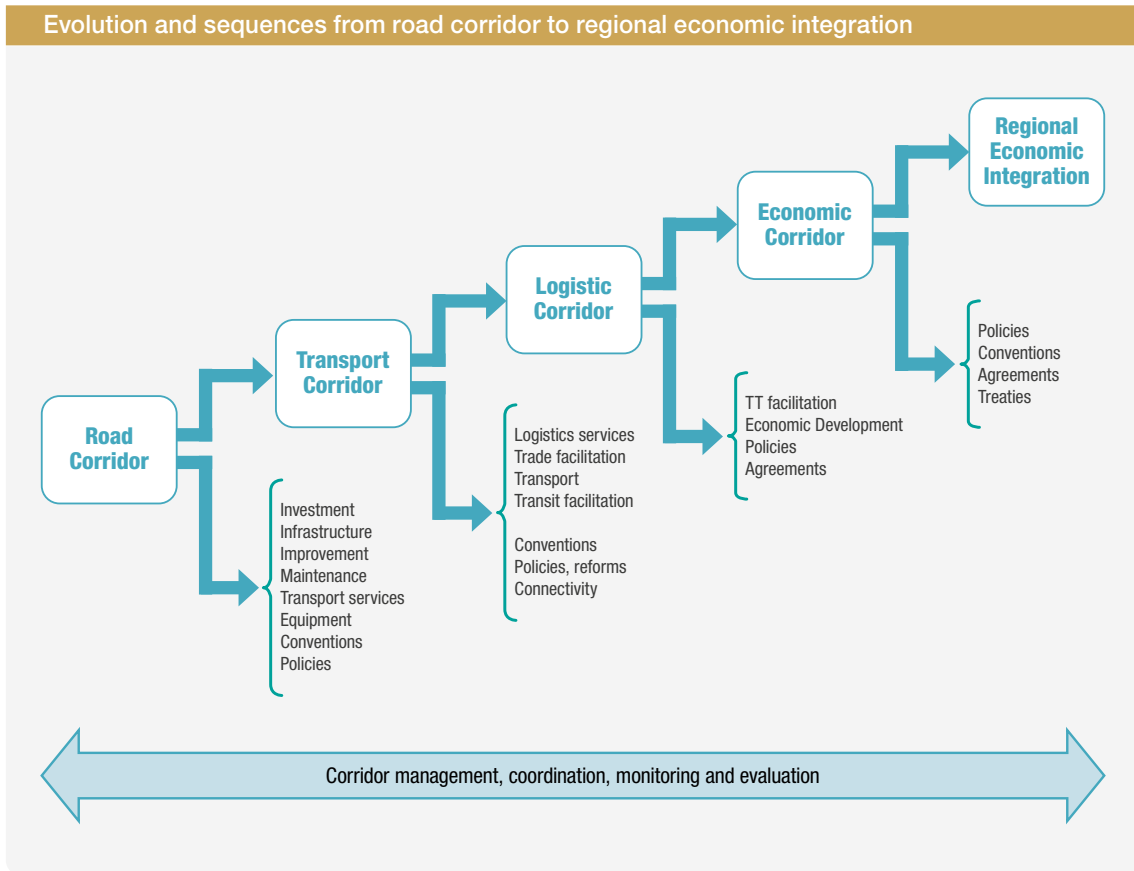
The AU stated in its 2019 Report on the Status of Regional Integration in Africa:⁶⁹ “Over the decades, regional integration has therefore emerged. as the main objective pursued by the African Heads of State and Government in the perspective of building a united and prosperous Africa, speaking with one and unique voice. and representing a dynamic force in the concert of nations”. The Asian Development Bank (ADB), which also made regional economic integration one of the pillars of its development support strategy highlighted that “better infrastructure, through economic corridors, would encourage production networks across South Asia, enhance regional and global trade, and help accelerate the region’s economic integration”. IsDB has also supported number of regional integration operations for its member countries. IsDB has particularly financed several road segments in some countries of the TSR corridor.

The higher level of regional integration targeted by the AU includes social integration (in areas such as health, gender, migration and education), free movement of persons, productive integration (building human and institutional capacities to add value to goods and services while raising people’s incomes on the ground), trade integration, infrastructure integration (development of seamless, cost-effective trans-boundary infrastructure), financial integration (such as banking across borders), monetary integration (establishment of a monetary union, which will require establishment of necessary institutions including a central bank) and environmental integration (environmental management for sustainable development to enhance protection of environment, promote equitable and sustainable use of natural and cultural resources, and promote shared management of transboundary environment and natural resources).

The hard and soft improvements needed are complex, multi-sector, multi-dimension, and multi-country (at national and regional levels). For proper implementation they need to be planned, sequenced, and prioritized for efficient performance of the corridor. They also involve several government levels and agencies as well as private sector. Adequate coordination is needed together with tight monitoring, evaluation and knowledge and best practice sharing. This requires a proper management and coordination scheme that integrates all aspects with a holistic vision and adequate planning, coordination of multiple actors, disciplines, sectors, and cross-cutting dimensions, and supported by appropriate monitoring and evaluation mechanisms.

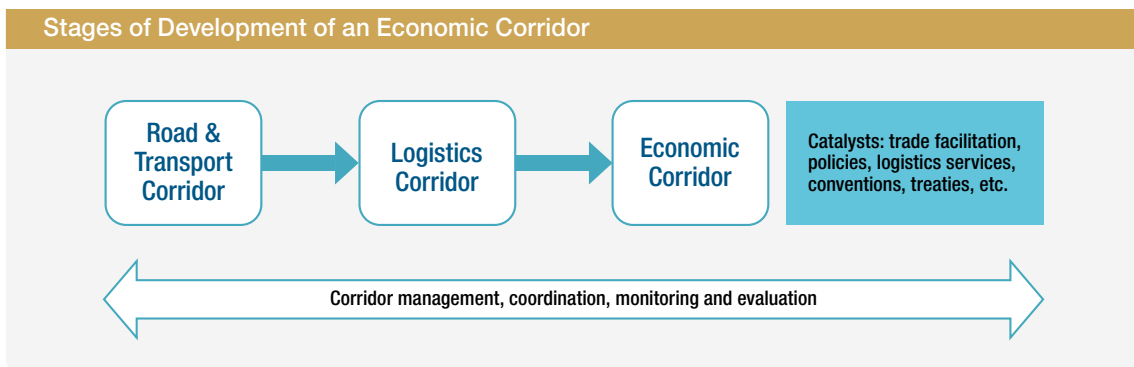
⁶⁹ Banque mondiale (2006)

Figure below summarizes the steps and sequences of the corridor concept evolution to achieve full regional integration.



As shown above, moving from one sequence to the other takes time and requires human competencies, financial resources, careful strategies and planning, investments in infrastructure and equipment, policies, sector reforms and strategies, international conventions implementation, execution of bilateral and multilateral agreements and treaties, etc. While adopting, consolidating, and building on the actions and activities of a sequence, the next sequence would need additional, complementary, and challenging actions and activities to implement to achieve a higher level of corridor development.

In the following, suggestions for TSR corridor improvements and recommendations, including a corridor management scheme, are made mainly to move from road corridor to transport, logistics and economic corridor as shown in Figure below



2 - Improvements to TSR corridor for evolution, performance and competitiveness

Needed improvements of infrastructure, policies, and regulations, and their complexity

Among various connecting infrastructure, transport plays an important role in poverty reduction, inclusive growth, trade, and economic integration. Connectivity entails hard physical infrastructure, and ICT (ex. fiber optic lines), supported by proper soft infrastructure which includes a facilitating framework consisting of effective policies, strategies, regulations, governance, strengthened capable institutions, systems, procedures, and knowledge.

For most landlocked and transit countries the lack, or inadequacy, of implementation mechanisms of the overall hard and soft infrastructure jeopardizes the development of transit systems. Although the financing needs for soft infrastructure are much lower than those of hard, they are nonetheless complex, they require more time to develop and massive regional and national efforts of efficient planning, coordination, and management.

For its performance and competitiveness, the TSR corridor would require hard infrastructure (missing links, maintenance, border crossings improvements and upgrading, dry ports, logistics parks, port equipment, etc.) and soft measures (regulations, policies, technological instruments, ICT, harmonization, and simplification of exchange of information, conventions, institutional, capacity building, etc.), and to put in place effective and efficient regional transit systems on which landlocked countries depend.

From the performance diagnostics of the previous chapters and the data, information and statistics collected, the needs for improvement to be addressed individually and jointly by the TSR corridor countries to ensure adequate performance of the corridor entail:

- Infrastructure improvement: completion of missing links, standards, asset management and sustainable maintenance policies
- Road safety measures: ensure the safety of travelers on the corridor (including rest and service areas, rescue services, etc.) and address security issues along the corridor and more particularly in the Sahel region
- Ratification of relevant conventions, memberships
- Adequate legal, regulatory, and institutional framework for the facilitation of transport and transit on the corridor
- Improving and modernizing border crossings and their management and performance: limit the physical and non-physical barriers that impact the fluidity of trade
- Improving customs transit performance, harmonization, use of ICT, risk management, exchange of information, national single window, etc.
- Improving road freight transport and trucking services: implement and enforce common legislation for axle load control
- Improving logistics services and networks, logistics centers/platforms, dry ports
- Improving ports (gateways) efficiency and operations and maritime transport services
- Improving land access to ports to assure seamless connectivity to hinterlands
- Capacity-building, including in logistics profession
- Proper corridor management scheme, financially sustainable and with the necessary support of all stakeholders and sustained commitment of the concerned governments
- Mechanisms for monitoring and evaluation of corridor performance and impact.

Adequate legal and regulatory framework

Facilitating trade flows among countries in the same subregion requires not only an adequate transport infrastructure, but also competitive and reliable services. Both requirements can be met effectively only to the extent allowed by the governing legal framework. Improved regional economic integration is achieved not only by the harmonization of national policies, but also by the preparation, ratification, and implementation of multilateral legal instruments. These instruments provide the framework needed to underpin the sustainable development of trade flows, which support economic growth and employment generation. The existence along the TSR corridor of three landlocked countries further strengthens the need to codify the rules governing the exchanges between coastal and landlocked states, so that the latter can benefit from access to external markets.

Transit regime

Best practices show that transit procedure relies primarily on a private-public partnership. The transit operator has freedom of transit in the customs territory if it is qualified and provides financial security to the customs. Implementation requires rather simple and universal instruments and principles, such as:

- Secured vessels (seals)
- Financial guarantee to fiscal risk of the customs of the country of transit⁷⁰
- Proper documents and tracing the inbound and outbound shipments in the country of transit
- Authorization of transit operators.

Transit regimes are implemented, in the first place, by national institutions and private operators. But there are major gains in harmonizing a transit regime within a regional system, for instance a single document and a single guarantee recognized across borders.

National single window

This recommendation responds to the need to harmonize and simplify the exchange of information between governments and traders. It encourages governments and those involved in international trade, transport, and transit to establish a single window for lodging standardized information and documents to fulfil all import, export, and transit-related regulatory requirements. Such a facility can simplify and expedite information flows between trade and government and can lead to better harmonization of data across governmental systems, bringing gains to all parties involved in cross-border trade. Authorities involved in a single window facility can coordinate their inspections and controls and provide facilities for payment of relevant duties, taxes and fees, and therefore increasing efficiency and reducing the administrative overheads associated with international trade. There are also opportunities for short-term improvement with information exchange between the port and customs for the manifest or schedule of visits. Improving upstream processing time is also helpful.

Capacity building and training

In addition to national capacity building, training in cross-cutting dimensions, legal, ICT and international aspects and their effective and efficient implementation and enforcement, it is also recommended to build the capacity in modern logistics services.

Proper corridor coordination and management, and public-private dialogue

The improvements needed are complex, multi-sector, multi-dimension, and multi-country. They need to

⁷⁰ https://unctad.org/system/files/official-document/TN17_BondedTransportRegimes.pdf Régimes de transport de douanes (unctad.org).

be planned, sequenced, and prioritized for proper and efficient implementation. They also involve several government levels and agencies as well as private sector. Adequate coordination and management are needed together with tight monitoring, evaluation and knowledge and best practice sharing.

There are several aspects in logistics, including public strategies and policies, regulation, infrastructure, and services. Multiple players are involved in supply chains, from shipping cargo to delivering to the final customer the unbundled order for imports, the same stakeholders, and steps, but in reverse, for exports, and transport from the manufacturer or producer to the buyer, with steps of grouping, storage, and unbundling for internal flows.

Sustained effective public-private dialogue is necessary. This would help reduce the main causes of delays which concern: (i) the documentary control by the Home Bank; (ii) the timeframes for customs clearance itself, notably in the absence of a system of customs risk management; and (iii) generally the lack of productivity and the low level of use of computers for the processing and sharing of information, or the lack of knowledge of modern practices of international trade and logistics by shippers.

3 - Potential benefits from improved transport connectivity, transit, and trade facilitation

Cross-border supply chains and trade facilitation

Trade facilitation is about making the processing of export, import, or transit clearance easier while preserving the social concerns at the origin of the procedure: fiscal revenue, health, consumer protection, road safety, and so on. Customs and border management remains a major agenda item in the TSR corridor countries. Most of the countries have yet to fully develop modern customs systems that can effectively reconcile the three objectives of raising fiscal revenue, facilitating trade, and protecting the consumer and the environment.

Accession of all TSR corridor member countries to the WTO is also a critical element. Despite the physical road improvements, major challenges remain however, one of them being the dependence on international and national transit for the landlocked countries of the group. Given their geographical location, landlocked status, and size, these countries are dependent not only on transit through third countries, but also on imports that are cleared after national transit at inland locations. Optimization of the transit regime is critical to reduce logistics costs and encourage activities such as facilitated transit.

Inclusiveness, equity, and sustainability

The process of integration—like the process of change brought about by technological progress—provides a net benefit for society at large, but to be sustainable, the political economy of trade requires that the benefits of integration, which are often concentrated in large cities and among more privileged sectors of the population, be shared as widely as possible across regions and people.

The vision of a greater economic integration of the TSR corridor countries regionally and into the global economy needs to include complementary social policies to enhance economic efficiency, promote to the extent possible equity of opportunities, and provide the necessary social safety nets. Simply removing economic obstacles between countries may not be sufficient to produce economically desirable outcomes, either because the presence of market imperfections prevents efficient outcomes or because such outcomes have distributional consequences (between and within countries) that may make them unfeasible.

Improving trade and competitiveness through reducing cost and time travel

International experience shows that transport and connectivity reforms provide the link between good-quality services and institutional capacity on the one hand and the accumulation and use of assets on the other. Improving connectivity (nationally, regionally, and globally) tends to have a positive impact on competitiveness and, ultimately, job creation and income growth. The drop in the cost of transport will improve opportunities for trade and the movement of people. This will likely generate jobs and greater returns on assets and decrease the prices of the imported goods consumed thus allowing for greater investment in asset accumulation. Reduced costs and time traveled increase the competitiveness of trade operators using the corridors in delivering their products to intermediaries or end-users.

Interaction between economic centers along the corridors creates new opportunities for trade and investment. The result is an enlargement of markets and the creation of circumstances where value can be added through interactions along the corridor. For the private sector, activities center on the participation in value chains, while for governments, business groups and multilateral institutions, support takes the form of improvements in production or export infrastructure to ensure that products originating from different areas along the corridor meet standards required of domestic or foreign markets.

CORRIDOR MANAGEMENT SCHEMES: INTERNATIONAL EXPERIENCE AND PRACTICES

The previous chapters of the present study presented situation of the TSR corridor and analyzed the economic outlook of each of the countries of the TSR corridor. They highlighted the need for improvements to enable it to move from a road corridor to a logistics, trade and economic corridor, and showed the magnitude and scope of the potential benefits to the countries and the sub-region from improved transport connectivity, transit, and trade facilitation. We also highlighted how the improvements needed are complex, multi-sector, multi-dimension, and multi-country. These improvements need to be planned, sequenced, and prioritized. As they involve several government levels and agencies that oversee different activities within the corridor in addition to the private sector involvement, adequate coordination and management plans are needed, together with tight monitoring, evaluation and knowledge and best practice sharing. Based on international experience and best practices in trade and transport corridor management, and using objective selection criteria, this chapter shows what model of coordination and management scheme could be adopted for the TSR corridor.

1 - International experience of transport, transit and trade corridor management schemes

Need for capable transport and trade corridor management

Several relevant trade and transport studies pinpointed that physical access to world markets is a paramount constraint to the development of many of the poorest countries, especially landlocked ones. The trade potential is hampered by the poor performance of the overland transit systems.⁷¹ Problems arise with transportation services, business practices, transport or customs procedures, governance, and infrastructure. But experience shows that projects and reforms are complex to design and implement and are not always successful. Transit facilitation requires the implementation of a wide range of consistent measures in several sectors and countries.

Experience shows that one of the most effective approaches is to focus on trade corridors. Indeed, one salient feature of overland trade, since the most ancient times, is its organization along linear corridors. The trade corridor is the natural entity to identify problems, bring together policymakers and stakeholders, and implement concrete facilitation measures and investment. Corridors also bring together national reforms and regional policies. With these overarching principles, corridor efficiency is important to the competitiveness of most African economies, especially those that are landlocked.⁷²

Several international organizations place emphasis on facilitating international trade along African corridors. They particularly focus on identifying impediments to the efficient movement of traffic and seek to promote appropriate strategies for minimizing hurdles to such movement. This objective is also consistent with sustainable development, the Almaty Program of Action (2003) and the Vienna Program of Action (VPoA) for Landlocked Developing Countries for the Decade 2014-2024. One of the contributory factors to the problems faced along corridors can be traced to the absence of appropriate institutions able to coordinate, proactively interventions to remove obstacles to movement. Corridors with corridor management institutions have sometimes shown significant improvements in their operations. The institutions have been instrumental in facilitating dialogue between corridor stakeholders and harmonizing

⁷¹ World Bank (2006).

⁷² SSATP (2007).

procedures and documentation used in transport and transit operations along the corridor, resulting in reduced transit time and cost.

International experience for agreements, treaties, and corridor management

Analysis of different models for management arrangements shows that it is not possible to completely control corridor development, but that it is important to have a single organization whose purpose is to promote and coordinate this development. Where corridors have been successful, there have been strong political and market support for their development. A corridor organization provides a point of focus for stakeholders' efforts and a forum for identifying major constraints on corridor performance. It also provides a focus for lending programs of multinational organizations, which typically lend to individual line ministries. While there have been variations in approach to the analysis of international trade corridors, a limited number of models have been applied. The following sections present some international experience and best practice for transport and trade corridor management. The experience presented encompasses different regions and sub-regions, different models of corridor management and different types of support. The presentation includes several examples of corridors in Africa, their management models, the constraints encountered, and lessons learned.

In general, history of corridor management is mixed. Large regional arrangements have proven more difficult despite the initial success of the Trans-European Transport Network (TEN-T network) in Europe. The objective of the TEN-T is to ensure an efficient and reliable transport system by creating a standardized, multimodal network for infrastructure, vehicles, and traffic management. The network includes road, rail, water, and air transport. Its success required more than ten years and the network was established on the back of efforts to develop a regional transport policy that spanned more than 40 years.

The progress achieved by regional trade blocks such as the Greater Mekong Sub-region (GMS), the Association of South-East Asian Nations (ASEAN), the South Asian Association for Regional Cooperation (SAARC) and the Central Asian Regional Economic Cooperation Program (CAREC) has been limited because of the time required to reach agreement on protocols acceptable to all participants. Consensus can also yield more cumbersome procedures, as it was the case with the introduction of the ASEAN harmonized tariff, which is a far more complex structure than that of any of the member states. In this regard, bilateral arrangements have been more effective since it is easier to achieve consensus, pass legislation and harmonize physical standards, procedures, and regulations. For example, ASEAN's member states have already developed bilateral arrangements that allow relatively unencumbered movements between Singapore, Malaysia, and Thailand.

Leadership in developing a corridor can come from different sources. For the TEN-T network, there was no separate organization to guide its development. Instead, it was developed through legislation formulated by the European Commission with implementation left to the responsible agencies in the member states. In most other corridors, the central governments have not offered direct legislative support but rather established or supported autonomous organizations that promote the development of the corridor. In this regard, high-level working committees are a popular mechanism, but their effectiveness depends on their support staff. The function of these entities is quite diverse, reflecting differences in objectives and in the scope of the agreements that they are meant to support. Regarding transit aspects, the case of Switzerland, which is not part of the EU, is interesting. Switzerland has a highly diverse and complex manufacturing economy. As a landlocked economy, it is well connected along the Rhine valley via road, rail, and barge to the main port of Rotterdam. The important function of transit in the country is remarkable as Switzerland serves as a transit country between the northern European manufacturing centers and the industrial economies of Italy, France, and Spain. Official negotiations were on bilateral basis (between the two parties) with no regional agency involved.

A 2002 Land Transport Agreement between Switzerland and the EU introduced the distance-related Heavy Vehicle Fee (HVF) for transit. The main treaty is supported by another six EU–Switzerland treaties.

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A comprehensive treaty system with the EU allows Switzerland to utilize the EU's common transit procedure, which is a single procedure from starting to end point. Transit is implemented with automated import and export system, economic operators' registration and identification systems, a single electronic access point, a risk management framework, and an integrated tariff environment, among others. The systems are fee-based and avoid congestion, while at the same time they support investment in the infrastructure that allocates traffic between rail and road in an environmentally friendly manner.

Some examples of corridor management agencies

TRACECA (Transport Corridor Europe-Caucasus-Asia), an intergovernmental ministerial commission, was established to implement the Basic Agreement signed in Baku in 1998. It receives some funding from the European Commission and member states, and with this it: (i) designs and funds small projects for alleviating bottlenecks in the network, (ii) conducts technical studies related to improving the efficiency of border-crossings, (iii) collects performance statistics, and (iv) organizes conferences to address issues related to the corridor. TRACECA is supported by a small secretariat that serves in a consultative role and is staffed primarily by consultants. Since TRACECA operates on consensus, it is not able to respond rapidly to the problems involved in integrating corridors. Most improvements have been accomplished through the initiatives of national or local governments.

Development of the Can-Mex (Canada to Mexico) corridors was supported by US transport legislation that encouraged bilateral and multilateral efforts to develop corridors. This led to the formation of several regional lobbying groups to promote the development of specific routes and capture federal funds to upgrade the highways that make up these corridors. There appears to be no method for coordinating these proposals beyond the budgetary review process.

The Central American Common Market (SIECA) is made up of seven countries: Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama. The Secretariat for Central American Economic Integration (Secretaría para la Integración Económica Centroamericana - SIECA) is a regional technical body. It is a legal entity whose main responsibility is to provide technical and administrative support to the Central American economic integration process of the Central American Integration System (SICA). Its seat is in Guatemala. The secretariat has focused its efforts on the progress of the customs union and the incorporation of the region into world trade and the worldwide economy, with a view to improving the economic integration of Central America. SIECA plays a role in defining and implementing the legal instruments for economic integration. It carries out technical analysis and studies mandated by resolutions of the various economic forums. It contributes to the implementation of these measures with organizations involved in the regional integration process, such as the Inter-American Development Bank and the World Bank. The Secretariat is also active in capacity-building and training.

Africa cases of corridor management agencies

A different situation applies in West Africa, where there is no formal organization. The Economic Community for West African States (ECOWAS) has taken the lead in efforts to facilitate cross-border movements but has been unable to get participating countries to develop regional agreements. Instead, there have been some bilateral agreements. The major initiative was to have the Chambers of Commerce introduce a system for bonded movement of transit traffic like the TIR carnet (TRIE). This system, combined with the bilateral agreements, permitted the development of some transit routes, but traffic remains light because of poor infrastructure.

In East Africa, the Northern Corridor has a permanent organization, the Transit Transport Coordination Authority (NC-TTCA), which has been in existence for many years. The NC-TTCA has three main bodies working closely towards achieving the objectives of the Northern Corridor Transit Agreement. These are the Authority, its Executive Body and the Secretariat. It was established to monitor the implementation

of the agreement between Kenya, Uganda, Tanzania, Burundi, and Rwanda, and has developed into a relatively strong professional agency. It promotes procedures for more efficient cross-border movement of goods and was instrumental in introducing a single administrative document. It has also worked with Kenyan Customs to develop efficiency indicators. These efforts have been supported by international development partners such as, UNCTAD, UNECA, USAID, and TradeMark (Trade and Markets) East Africa.

In Southern Africa, the Maputo Corridor is quite different in terms of organization and effectiveness. This corridor was established through a bilateral agreement between the Governments of South Africa and Mozambique to facilitate the cross-border movement. They let concessions to the private sector to rehabilitate and upgrade the road, the rail link, and the Port of Maputo, and to operate them efficiently. Since then, traffic has grown rapidly.

Another approach was used for the Trans-Kalahari Corridor, since the road and port infrastructure were already in a good shape and there was an existing customs union (Southern African Customs Union, SACU). Traffic was also growing rapidly, having tripled between 1998 and 2003. The principal objective was to promote the use of Walvis Bay Port, in Namibia, as an international gateway. For this purpose, the Walvis Bay Corridor Group, a public-private partnership, was created to coordinate and integrate the various public and private sector efforts to support development along the Walvis Bay Corridor. The group, in which the private sector was highly involved, facilitated the agreement between Namibia, South Africa, and Botswana to introduce a Single Administration Document and to simplify border-crossing procedures. The agreement was formalized at the end of 2003.

The Dar es Salaam Corridor links the port of Dar es Salaam in Tanzania to Lusaka in Zambia and Lilongwe in Malawi. Key infrastructure along the corridor includes the port, the TAZARA railway line and the TANZAM highway. A corridor coordinating committee was created, the Dar es Salaam Corridor Coordinating Committee, which has two working groups, one for transport and the other for Customs. Corridor activities have been funded by the USAID Southern Africa Trade Hub with no guaranteed sustainable funding mechanism. The Lagos-Abidjan Corridor is the busiest passenger corridor in West Africa. It connects five countries—Côte d'Ivoire, Ghana, Togo, Benin, and Nigeria—through the port cities of Abidjan, Accra, Lomé, Cotonou, and Lagos. The corridor has a Governing Body composed of representatives from the five countries. The Governing Body, responsible for the oversight, is supported by an Executive Secretariat responsible for overall coordination and management, preparation of quarterly progress reports and the monitoring and evaluation. The arrangements were funded from World Bank grants without sustainable long-term commitment.

Best practices

The most successful multilateral corridor development programs have taken place within customs unions since these simplify the border-crossing procedures. In the case of the TEN-T network in the EU, the formalities for border-crossing were addressed as part of the technical annexes to the treaty. These were prepared by transport ministries. For Walvis Bay, the customs union between South Africa and Namibia had already simplified the movement of trucks across the border. In the case of the Can-Mex corridor, the procedures for trucks crossing between Canada and the US were well established prior to the NAFTA agreement. In contrast, the procedures for trucks crossing of the Mexican-US border were never fully addressed due to resistance from the US trucking industry and Mexican customs brokers.

The formal designation of a specific set of routes as a corridor is generally part of a government endeavor to focus its efforts on improving the quality of transport services to these routes. The term management implies some form of control, but the variety of demand for transport and other logistics services and the large number of providers of these services limit the opportunities for exerting any form of control.

Nevertheless, it is important to create a single point of coordination given the diversity of stakeholders and the large number of government agencies that oversee different activities within a corridor. This coordination requires a public-private partnership to address a wide range of problems including invest-

ment in infrastructure, regulation of transport and trade, facilitating the improvement in private sector transport and logistics.

2 - Some lessons learned from corridor development and management

Three aspects should be examined. The first concerns the characteristics of an international corridor and the parameters that define its performance. The second relates to the mechanisms available for improving corridor performance, especially at the border crossings. The third involves management techniques for coordinating the development of corridors.

The development of seamless corridors in Europe over the past six decades shows that implementing the needed improvements in developing countries will take time: there are no credible alternative paradigms, no silver bullets, and no shortcuts. The various implementation challenges should be the primary focus. They include the reengineering of transit regimes, trucking services, multimodal transportation, and corridor management and monitoring.

International experience in trade and transport corridor development provides policymakers and development practitioners a wide range of lessons including those for treatment of transit, and a series of practical lessons that will help identify and address priority areas for policy reform and trade and transport facilitation programs.

Some of the lessons that have emerged from the existing corridor management arrangements in Africa include⁷³:

- Corridor groups can solve problems; operational procedures should encourage this objective and retain flexibility necessary to be responsive
- Working groups can be formed on an ad hoc basis to address specific issues and disbanded once the objective met
- Corridor issues by their nature are often solved by interactions between many public entities; participatory processes should be fostered
- Ownership and power-sharing should be encouraged by the organizational design and operating procedures
- The group organization should ensure public-private interaction at all levels
- Most existing arrangements have been established with donor funding and their financial sustainability has remained a key challenge
- In the end, tailoring the arrangement to the corridor context will be needed if ownership is to be secured.

3 - Criteria for selecting and adapting a management model for the TSR corridor

The recommendations made in this study for improvements of the TSR corridor are linked to each other, they need to be implemented in the proposed sequences to have maximum impact. Unless there is an institutional arrangement that oversees their implementation, such coordinated action is unlikely to happen.

Experience in different trade corridors shows that a proper corridor management scheme or agency can be effective. It can ensure that the trade facilitation measures implemented in one country are supported by comparable measures in other countries in the corridor. It can also ensure that the actions within any

⁷³ SSATP (2007).

country are implemented under a holistic framework. The coordination that such an agency/scheme can bring is particularly important in respect of transport infrastructure, where the investments of one country depend entirely for their success on the presence of comparable infrastructure in other countries along the corridor.

Criteria and guiding principles for selecting and adapting a model

Objectives of the corridor development

While there is a common objective of efficient movement of trade, there are often broader economic goals that the corridor is meant to achieve. Some corridors promote trade or economic growth, others increase activity at the international gateway at the end of the corridor. A corridor may also be developed to provide an international gateway for one or more landlocked countries. While there is often substantial trade between the countries through which the corridor passes, increased trade with third countries beyond the corridor is often another objective of increased efficiency within the corridor. Still other corridors have been developed as part of a broader effort to promote or expand an economic union.

Promoting integration was the rationale underlying the development of the corridors in the Greater Mekong Sub-region, and the MERCOSUR region (Argentina, Brazil, Paraguay, and Uruguay signed, in 1991, the Treaty of Asuncion, creating the Southern Cone Common Market, MERCOSUR), while expansion was the case for the extension of the TEN-T in Europe through the transport corridor Europe-Caucasus-Asia (TRACECA) in support of the EU enlargement. Finally, some corridors have evolved with no objective other than to facilitate bilateral and multi-country trade that is controlled through bilateral agreements.

Activities of a corridor management system

The activities of a corridor management system could include planning and financing, legislation, regulation, operation, monitoring, and promotion of the corridor. While the system will be responsible for coordination and promotion, implementing specific actions will probably be the responsibility of other government agencies (ministries and entities). The activities to be undertaken determine who are the participants and the most appropriate institutional structure.

The most important activity in corridor management is leadership. To be effective, the arrangements must have sufficient authority to obtain cooperation from the national public agencies that develop the infrastructure and facilities, prepare the trade and transit legislation, and formulate and enforce the standards and regulations affecting services in the corridor. This implies participation by relatively senior officials from either the executive or legislative branches of government. For bilateral or multilateral corridors, the leadership would have to be senior political officials from each of the participating countries with comparable status.

Corridor management arrangements should be designed to advocate modernization of border agencies, particularly Customs administrations. Focus could be on those aspects that negatively impact corridor efficiency such as institutional reforms, simplification of procedures, while promoting improvement in training and investment to upgrade information technology and border crossing facilities.

Given port hub and feeder service operations, and the existence of alternatives in port or overland routes, and mode choice, corridor management arrangements can be a way to improve efficiency through benchmarking and competition between corridors. Appropriate corridor performance indicators need to be put in place. It would also be necessary for the corridor management scheme to have a forum where the stakeholders exchange ideas.

Organization of a corridor management system

The form of the organization depends on both the issues it will address and the period over which it is expected to be active. If the primary concern is with the legal component of the corridors, then it is likely

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that the organization would take the form of a standing committee within the legislature or a special section within the ministries of transport or planning. The life of the organization would be linked to the time required to ratify the treaties and enact the legislation required to allow the corridor to operate but is unlikely to extend beyond 1 to 2 years. Therefore, the organization should have a flexible structure relying on consultants or seconded staff for technical support.

If the primary concern is project development, then the tenure will continue through the planning and construction of infrastructure and facilities. If responsibility is limited to planning, then a task force or inter-ministerial committee, as have been established in some corridor examples in South Asia (Pakistan and India), would be the suitable structure.

When the primary concern is operational, then a more permanent organizational structure would be required. At the same time, it would operate independently of governments concerned. An association or commission could be setup if the system's primary duties are to monitor performance and promote the use of the corridors. If the duties include coordinating activities of public agencies, e.g., for upgrading infrastructure, contracting for construction and/or concession, then an autonomous authority would be more effective. In all cases, the corridor management system should be relatively small with a technical rather than administrative orientation but with leadership that is involved in public dialogue.

The requirement to interact with large number of political, public, and private sector actors does not require size but rather flexibility. The same applies for the requirement to act across provincial and national boundaries. For the latter, working committees can be established with senior officials involved in trade and transport to focus on the legal components but the physical and operational components must be dealt with at a national level. The exception would be efforts to improve performance at the border in which case bilateral working groups can be established.

A three-tier corridor management scheme is proposed for regional transport corridors without any existing arrangement. The institutional hierarchy would comprise a stakeholder group, a core group, and a secretariat. The stakeholder group would comprise representatives of customs, immigration, transport and logistics operators, rail and road agencies, port authorities, transport regulation and road safety agencies, ministries of health for each state and regional level institutions.

The second tier would be an executive group made up of members nominated to represent specific constituencies. The core group can also establish such working groups as may be required to address specific issues. The stakeholder group and the core group would be supported by a secretariat (third tier)—the main coordinating and technical body of a corridor group. A three-member team of core staff is proposed as the minimum for a functional secretariat.

Funding of the corridor management scheme

Funding the management system on a sustainable basis is an important factor in selecting the type of management scheme. Funding arrangements for existing corridor groups include membership fees, contributions by governments, traffic-based usage fees, or donor support.

The sustainability of most corridor institutions is a challenge, though the traffic-based usage fee arrangement seems to be the most appropriate as it also places demand to deliver benefits to the shippers who ultimately meet the costs. It is generally envisaged that in the first instance membership contributions or donor funding would be necessary to establish a management system.

The funding mechanism of a corridor group would be influenced by its legal instrument. Once established, the group would develop an action plan and deliver some results making it possible to introduce a usage-based funding mechanism such as a tonnage levy. A usage fee would maintain pressure on the core group and the secretariat to deliver tangible benefits for corridor stakeholders to justify its funding. If it is introduced, the usage fee mode of collection should be simple to administer.

Political will and commitment of countries, and readiness of a corridor management scheme.

A common vision of involved countries, their commitment to achieving the common goal and their willingness to move ahead with a joint strategy, and a phased and sequenced action plan are all critical for implementation of effective and efficient foundations for trade, transport and transit facilitation measures.

Given the complexity of the action plan to be implemented and the many stakeholders, the countries would appreciate the need for an effective and efficient coordination and management mechanism for the corridor. Readiness is key as the governments would opt for most fit and ready structure and the one with the least difficulty to be operational and come into play quickly.

CONCLUSIONS AND RECOMMENDATIONS

THE TRANS-SAHARAN ROAD CORRIDOR

Following the review of international experience and best practice in trade, transport and transit corridor management schemes and drawing upon insights from the analytical work carried out in the previous parts of the report, this chapter makes a proposal for a regional cooperation framework and a management scheme to be adopted for the TSR corridor, its structure, composition, responsibilities, and its financial sustainability. The structure would ensure coordination of the trade and transport and transit facilitation measures, support their effective implementation and overall smooth operation of the corridor, carry out management and commercialization of the corridor as well as performance monitoring, training, and knowledge-sharing.

The analytical work of the present study highlights the differences of the economies of the six TSR countries, of which three are landlocked. Despite the economic differences, the countries present some similarities in their LPI and doing business rankings and main issues and aspects to address to improve their rankings. The improvements could be supported by joint efforts to promote trade and commercialization of the TSR corridor and implement the trade, transport, and transit facilitation measures along the corridor in a structured, efficient, and organized manner.

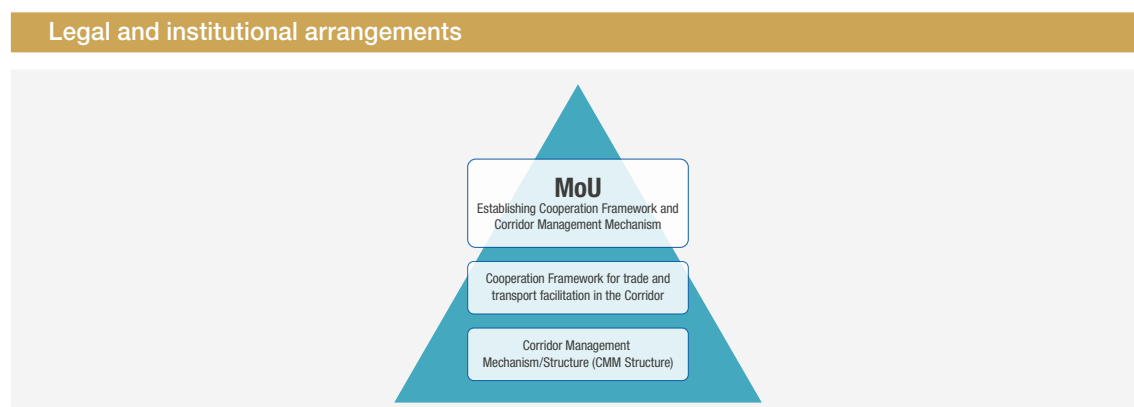
Once the measures (hard and soft) to address the constraints of the trade and transport facilitation and the performance of the logistics and the supply chain are put in place and operational, trade will develop and increase between the TSR corridor countries and from these countries to the rest of Africa. The performance of the corridor and its competitiveness will be put in motion, which will trigger the inter-continental trade and will position the TSR corridor as a main trade link between northern, central, and western Africa.

This chapter identifies the main elements required for an intergovernmental agreement establishing a mechanism for collaboration among TSR corridor member countries. These elements include the structure and key provisions for the facilitation of trade and international transport in the corridor.

Finally, the chapter suggests an action plan through the formulation of a TSR regional economic corridor development program that could be supported by the TSR countries and international development partners (IsDB, UNCTAD, etc.). The proposal includes the phases and timing for implementation of such a program, as well as the objectives, content, and implementation arrangements of the program.

1 - Proposed model of management scheme for the TSR corridor

The proposal for legal and institutional arrangements for the management of the TSR Corridor is summarized in Figure below.



CONCLUSIONS AND RECOMMENDATIONS

It is proposed to have a three-component arrangement: (i) a Memorandum of Understanding (MoU) between the TSR corridor countries establishing a Cooperation Framework and a Corridor Management Structure/Mechanism; (ii) a Cooperation Framework (CF) for trade and transport facilitation and other relevant aspects; (iii) a formal institutional Corridor Management Mechanism/Structure. These three components once adopted and enforced by the TSR corridor countries would support the evolution towards an economic corridor and lay the ground for the ultimate objective of regional integration. Finalization and adoption of these components by the TSR countries could be supported by international development partners (such as IsDB and UNCTAD) through an economic trade and transport development corridor program as described below in this chapter.

The TSR corridor countries recognize the crucial importance of efficient, reliable, and safe transport infrastructure and services to regional integration and the sustainable economic and social development of the countries. The analytical work that led to the suggested legal and institutional governance and arrangements for the TSR Corridor is outlined in the report. The details and proposed aspects to be covered under the MoU, CF and CMM structure are given below (and provided also in Annexes 4, 5 and 6 of the present report).

The proposed MoU is without prejudice to the competence of the signing ministries in charge of their respective road, transport and other related infrastructure regarding planning and funding of the infrastructure or on the organization of the road transport services in their respective territory. For the sake of flexibility, all cooperation activities in the context of the MoU are based on the voluntary commitment of the parties and other stakeholders involved, and the MoU remains in force unless terminated in writing by any of the parties.

The cooperation framework (CF) would outline the long-term common targets/strategy for member countries and their development partners, particularly to increase effectiveness of facilitation measures and coordination among these measures, and to avoid inconsistency in facilitation efforts and conflict between different existing facilitation agreements or measures. The framework would constitute an effective legal regime and give the long-term common targets for critical issues.

The corridor management mechanism/structure (CMM) provides the institutional setup suggested for the management of the TSR corridor for driving the evolution of the TSR corridor towards an economic corridor and for promoting regional economic integration.

Governance model suggested for TSR corridor management

Applying the criteria and guiding principles defined above on how and what type of model to select for the institutional arrangements for the management of the TSR corridor and using different cases and best practices from the international experience, allowed to suggest the arrangement summarized in Table below. The criteria and guiding principles (development objectives, activities, organization, funding, political will and commitment of countries, and readiness) have been complemented by some of the lessons learned from experience from existing arrangements. These lessons include:

- Corridor groups can solve problems; operational procedures should encourage this objective and retain flexibility necessary to be responsive
- Working groups can be formed on an ad hoc basis to address specific issues and disbanded once the objective met
- Corridor issues by their nature are often solved by interactions between many public entities; participatory processes should be fostered
- Ownership and power-sharing should be encouraged by the scheme design and operating procedures
- The organization scheme should ensure public-private interaction when needed at all levels
- Most existing arrangements in Africa region have been established with donor funding and their financial sustainability has remained a key challenge
- Tailoring the corridor management arrangement to the corridor context is needed if ownership is to be secured.

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Selecting a model for the TSR corridor management	
Objectives of the corridor development	Provide for efficient movement of trade with broader economic goals that the corridor is meant to achieve. Promote trade and/or economic growth. Lay the ground for future regional economic integration
Activities of the corridor management system	Leadership. Planning and support in seeking financing (from development partners), legislation, regulation, operation, monitoring, and promotion of the corridor. While the scheme is responsible for coordination and promotion, implementing specific actions will be the responsibility of other government agencies
Organization of a corridor management system	Primary concern is operational, then a more permanent organizational structure would be required. At the same time, it would operate independently of governments concerned
Funding of the corridor management scheme	Likely funding from membership fees (mainly governments), contributions by governments, traffic-based usage fees, and possibly donor support (initially)
Political will and commitment of countries, and readiness of a corridor management scheme	There is common vision of the TSR countries for implementing a joint economic corridor. They are committed to implementing the needed trade, transport and transit regime and facilitation measures. They are committed to achieving the common goal and demonstrate willingness to move ahead with a joint strategy towards future regional economic integration. The countries are likely to prefer a management scheme that would easily become operational. Readiness is key.
Type of suggested governance model for TSR corridor management: Permanent TSR economic corridor executive secretariat (or authority/agency-Le Secrétariat permanent du corridor économique transsaharien), with an oversight government committee/council (transport/public works, customs, trade, ports, transport regulation and road safety, private sector). In addition, the countries may establish national trade facilitation committees	

Mode of operation of the TSR corridor management: the corridor management structure

The institutional setup suggested for the management of the TSR corridor (corridor management scheme/structure, CMM) is a two-tier arrangement comprising an oversight committee and a permanent executive secretariat. The oversight committee would include high-level representatives of ministries or national agencies responsible for transport, public works, trade, and customs. Representatives of port authorities, transport regulation and road safety agencies, as well as the private sector (trucking industry, logistics operators, freight forwarders) could be added as governments may agree on. The role of the committee would be limited to oversight and helping address and solve any issues and policies that may hamper trade, logistics, transit, and transport facilitation. The oversight committee may elect a smaller core group to act on its behalf. The committee can also establish such working groups as may be required to address specific issues. The oversight committee would meet once a year with rotating turn in each of the member countries. The corridor executive secretariat would organize the meetings of the committee.

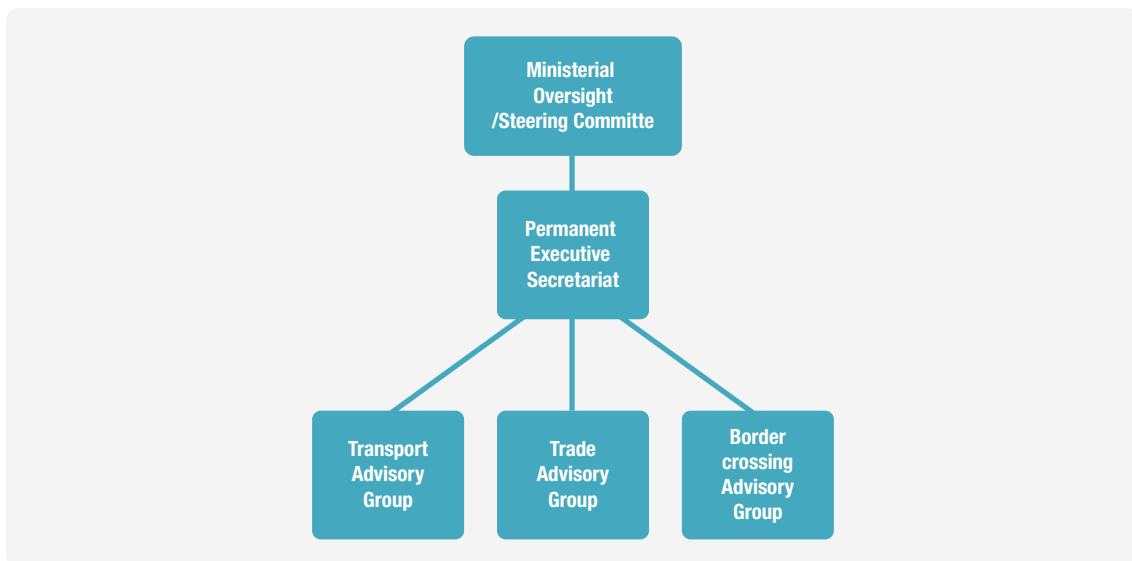
The oversight committee would be supported by a Permanent Executive Secretariat—the main coordinating, managing and technical body of the corridor management scheme. The Secretariat would at a

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minimum have the following positions: (i) a Secretary General; (ii) a transport and trade facilitation expert; (iii) an administrative assistant. The Secretary General may, with consultation with the oversight committee, appoint such persons as members of the secretariat as may be required for the proper discharge of the secretariat's functions. Any member country may, to support the work of the secretariat, second a person to serve as a full- or part-time in the secretariat, subject to such conditions as the Secretary General may determine in consultation with the oversight committee. Members are encouraged to make in-kind contributions to the initial setup of the Secretariat, such as equipment and travel costs.

The mechanism for discharging responsibilities of the proposed corridor management scheme include, and may not be limited to: (i) monitoring performance of transport operation along the corridor, and the concerned national, regional and global supply chains; (ii) disseminating results of monitoring through conferences, publications, and media at all levels; (iii) sensitizing corridor member state authorities; (iv) supporting common/standard procedures and regulations development and implementation; (v) supporting capacity building initiatives of key institutions engaged in trade and transport operations (Customs, clearing and forwarding agents, insurance companies, transport infrastructure management agencies, transport, and logistics operators, etc.); (vi) networking with international, regional, and local partners concerned with trade and transport corridor management, and exchange of experience. The proposed corridor management structure is summarized in Figure below.

CORRIDOR MANAGEMENT MECHANISM (CMM)*



*Amend existing CLRT organic statutes⁷⁴ to setup the CMM



⁷⁴ Available at: <http://www.clrtafrique.com/index.php>.

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The overarching function of the proposed TSR corridor management scheme would be to coordinate and lead the preparation and support implementation of measures to:

- Ascertain smooth and safe passage of cargo along the corridor
- Reduce transportation costs along the corridor
- Simplify cargo clearance procedures
- Simplify customs documentation
- Harmonize transport and transit policies
- Enhance co-operation among the member States
- Facilitate trade among member States and between the member States and the rest of the world
- Contribute to the sustainable development of the member states and poverty reduction
- Promote the improvement of road transport infrastructure; and
- Encourage the major transport service providers (including ports, truckers, etc.) to provide cost-effective services
- Monitor the performance of the corridor and assess how regional value chain is being supported especially in light of the Covid-19 crisis and the expected shift in global trade and the restructuring of the global value chains.

Performance indicators of the corridor

Based on the previous chapters of the present report, some of the key performance indicators of the TSR trade, transport, and transit corridor, that the executive secretariat would follow up and report on to the oversight committee, include:

- traffic and trade volumes and values
- transport cost
- turn-around time of trucks and wagons
- ports dwell time
- border posts (and dry ports) transit times
- variation of all the above times within the TSR

Responsibilities of the corridor's Executive Secretariat

The key functions and responsibilities of the TSR trade, transport and transit facilitation corridor Executive Secretariat would include, in addition to the overall coordination of activities and inputs:

- Organize oversight committee's meetings and stakeholder workshops, finalize meetings minutes and reports
- Provide technical advice to the working groups
- Participate in development of policies, regulations, standards, safety, risk management, harmonization mechanisms, ICT deployment concerning trade, transport, and transit facilitation in the corridor
- Establish and manage corridor monitoring/observation activities and monitoring and evaluation mechanism, exchange international experiences
- Develop and manage corridor performance related database and disseminate monitoring outcomes
- Respond to requests from private sector, ministries responsible for transport, trade and industry, chambers of commerce and other organizations involved in industrial development and investment promotion regarding the facilities, cost, delivery time to various markets, security, and reliability of the route as needed for them to effectively market the corridor and spur economic development based in part on the quality of the transport system
- Assist transport and logistics service providers to develop cost and service packages offering competitive rates and services and an integrated tariff structure to customers. Share technical and operational knowledge amongst service providers and harmonize service quality

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- Promote and market the corridor through dissemination of information, publication of a newsletter and a website, participation in exhibitions and trade fairs and by undertaking marketing visits
- Undertake or prompt research on own initiative or as directed by the oversight committee
- Appoint and manage consultants when needed to carry out special and knowledge studies
- Prepare recommendations of annual membership dues and any other sources of funding, and assist in fundraising
- Prepare work plans, annual budget and progress reports and submit to the oversight committee
- Undertake administrative and financial management functions and other activities instructed by the oversight committee
- Establish productive working relationships with other regional corridors and institutions, and international organizations

Establishing the corridor management scheme including the executive secretariat

To expedite establishing the proposed management scheme for the TSR, and for the sake of operational efficiency, it is suggested to build on the existing CLRT by entrusting it, after strengthening, with wider roles covering more sectors. Member countries may decide to amend the organic statutes of the CLRT to include the oversight committee and the executive secretariat with their prerogatives, roles, responsibilities, and composition as described above. The proposal is made based on the selection criteria as described above and the relevant international experience.

It is suggested to rename the CLRT and give it a name that would relate to the economic corridor vision, the wider approach of trade, logistics, transport, and transit facilitation corridor as well as the function of corridor coordination and management. The new suggested name of the structure could be “Trans-Saharan Economic Corridor Coordination Committee” (Comité de Liaison et Coordination du Corridor Economique Transsaharien, CLCCET). The existing legal statutes of the CLRT could be revised and amended. As highlighted in the existing statutes, these have not been ratified by the countries concerned. They were simply approved by the representative of each of the member countries on the Committee. If the TSR governments agree, this would be a good occasion and opportunity to revise the CLRT statutes, amend and have them officially ratified by the TSR corridor member countries. It would also be the occasion to address the funding (on a sustainable basis) of the corridor management scheme. The existing CLRT secretariat (which would be kept, to become the Executive Permanent Secretariat) would also need greater resources, including staffing, competencies, and equipment, as well as sustainable financial support.

Funding of the TSR corridor management structure and its costs

The proposed corridor scheme needs reliable sources of income to be able to finance coordination functions, monitoring and related activities. The activities will likely be reflected in action plans prepared by the governments with contribution of the TSR management scheme. The plans generally aim at enhancing the performance of all players in the logistical chain. Implementation of the action plans rests with the governments or the business community (shippers, transporters, clearing agencies, port authority, etc.) should they see the benefits of making contribution.

Two critical aspects should be properly addressed: the overall sustainability of the corridor management scheme, and the financial sustainability, without which the scheme collapses. Any corridor management requires stable sources of funding to achieve its goals. Countries should lay out plans in the legal instrument creating the corridor management scheme. Typically, the main costs associated with establishing corridor management structure would be: (i) secretariat office accommodation, salaries, and benefits of secretariat staff; (ii) oversight committee and stakeholder coordination meetings; (iii) information dissemination; (iv) corridor performance monitoring; and (v) studies and technical proposals to enhance corridor

performance. Funding arrangements could initially include membership (countries, autonomous agencies, etc.) fees, contributions by governments, traffic-based usage fees (if feasible initially), and donor support (through trade and transport facilitation projects and/or programs). Experience shows that in the first instance membership contributions and/or donor funding are necessary to establish and support a corridor management structure.

2 - Proposed intergovernmental agreement establishing mechanism for collaboration among TSR corridor countries

Legal strategic framework for trade and transit transport facilitation of the TSR corridor

The review of experience and existing corridor management institutions showed that a variety of legal instruments are used to formalize the corridor scheme. These are the instruments that define the objectives of the scheme, the implementing authorities, the institutional arrangements, roles and responsibilities of the different parties and financial sustainability of the scheme.

In the case of the TSR corridor, the revision and amendment of the statutes of the CLRT would give the legal instrument and the intergovernmental agreement establishing TSR corridor management structure and ensuring its financial sustainability and will provide the framework for coordination of operational activities and set-out responsibilities of all parties. The governance arrangements given above serve as an instrument to setup TSR trade and transport corridor management structure and outlay the organizational arrangements and operational practices. Experience shows that the corridor management arrangements should be designed to advocate modernization of border agencies, particularly customs administrations. Focus could be on those aspects that negatively impact corridor efficiency and performance such as institutional reforms, simplification of procedures, while promoting improvement in training and investment to upgrade information technology and border crossing facilities.

What the regional strategic cooperation framework can do

The cooperation framework (CF) would outline the long-term common targets/strategy for member countries and their development partners, particularly to increase effectiveness of facilitation measures and coordination among these measures, and to avoid inconsistency in facilitation efforts and conflict between different existing facilitation agreements or measures.

The cooperation framework would constitute an effective legal regime and give the long-term common targets for essential and critical issues for transit transport facilitation, particularly:

- Road transport permits and traffic rights
- Visas for professional drivers and crew
- Temporary importation of road vehicles
- Road safety
- Insurance of vehicles
- Vehicle weights and dimensions
- Vehicle registration and inspection certificates.

To provide a focus for collaborative efforts, cooperation and exchange of experiences, TSR corridor member countries should consider: (i) building an effective legal regime especially for accession to selected international facilitation conventions; (ii) sub-regional and bilateral agreements; (iii) wider applications of new technologies (including green technologies); (iv) development of professional training; (v) establishment/strengthening of national facilitation coordination mechanisms; (vi) promotion of joint con-

trol at border crossings; (vii) promotion of economic zones at border crossings, dry ports and logistics centers; (viii) further application of facilitation tools; (ix) adoption of environmental sustainability policies, including on climate change and resilience.

In the African context, transport corridors are a primary area of focus in infrastructure development and trade facilitation strategies pursued across Africa at both continental and sub-regional levels. African Union programs and the regional economic communities all place priority on enhancing interconnectivity and facilitating trade by focusing on transport corridors as catalysts of regional economic integration and continental development.

The VPoA, relating particularly to the needs and problems of landlocked developing countries also highlights the importance of a lack of direct access to the sea, remoteness from the world markets and prohibitive transit costs and risks. These bottlenecks demand that assistance for improvement of transit transport facilities and services should be integrated into the overall economic development strategies of landlocked and transit-oriented developing countries.⁷⁵

The establishment of efficient transit transport system through cross-border corridor management schemes can provide genuine partnerships between landlocked and transit developing countries based on mutual benefits deriving from the specific actions that major stakeholders may agree to undertake in the VoPA.

3 - Key provisions to be part of the intergovernmental agreement

In a review of legal instruments on transport and trade facilitation in Sub-Saharan Africa⁷⁶, it was clear that the choice of a legal instrument is fundamental to the effectiveness of a corridor management scheme. It is also helpful to determine the cost associated with the establishment of management arrangements. The choice of legal instrument will be influenced by key partners and depends on the desired level of interaction between public and private-sector stakeholders.

The proposed main elements and key provisions for the intergovernmental agreement establishing a mechanism for collaboration among TSR corridor member countries are based on different examples of memorandum of understanding and corridor constitution⁷⁷. International best practice recommends that the legal instruments to be adopted for the corridors should be harmonized with the legal regimes of the corridor countries. Most importantly, the legal document must be ratified by the responsible public bodies of corridor member states. Likewise, for new schemes, the choice of legal instrument should be preceded by stakeholders' consultation, to orient the type of instrument to be chosen.

As mentioned above, the proposed scheme for TSR corridor management (CMM) and the intergovernmental agreement (CF) build on existing arrangements and propose revisions and amendments to existing texts and organic statutes. Table below gives what could be the content of a legal instrument for the TSR economic corridor management scheme. It could be finalized and implemented under a TSR regional development program as proposed and detailed below. Enhancing cooperation on legal frameworks for transit at bilateral, regional, and global levels strengthens how the landlocked and transit countries of the corridor cooperate and coordinate on fundamental transit policies, laws, and regulations. The framework encourages the landlocked and transit countries to join relevant international conventions, particularly the TIR Convention, the Harmonization Convention, and the Revised Kyoto Convention given their potential benefits, as well as agreements with a view to promoting the harmonization, simplification and standardization of rules, formalities, and documentation transport. The cooperation framework is a platform for effective information exchange, including information protection issues, limitations on the use of information, and harmonization of information requirements to international standards.

⁷⁵ The specific objective of the VPoA is to reduce travel time along the corridors with the aim of allowing transit cargo to move 300-400km for every 24hours.

⁷⁶ SSATP (2014).

⁷⁷ SSATP (2007).

Proposed Table of Contents for Corridor Management Scheme Legal Instrument⁷⁸

Preamble

Sets out the context and guiding principles for the corridor management scheme

Definitions

Definition of key terms as used in the document

Establishment of policy, executive and operational organs, and their legal powers

Formal establishment of the Oversight Committee (policy organ) and the Secretariat and their legal mandate

Scope

Areas addressed by the legal instruments

Objectives

The objectives of the instrument.

Membership and member responsibilities

Identification of the competent authorities for purposes of implementing the instrument.

Activities and specific issues

The definition of the key issues and instruments to be used in implementing the legal instrument such as:

Transit facilities and procedures

Customs procedures, border post facilities, management, and operating hours

Road infrastructure provision and maintenance

Other transport infrastructure, provision, and maintenance

Road transport policy

Road traffic and road traffic law enforcement, axle load controls, vehicle dimensions

Technical certification, insurance

Transportation of hazardous materials

Road safety

Environmental sustainability policies, including resilience to climate change, adaptation strategies

Development opportunities along the transport corridor, trade promotion, commercialization

Monitoring and evaluation

Institutional issues Definition of the following:

Stakeholders

Relationships

Powers and responsibilities

Corridor management organs

Rules of procedure

Reporting lines

Financing mechanism outline for corridor institutions

Final provisions definition of some fundamental provisions to bring the instrument into effect:

Entry into force

Amendments

Signatures

78 SSATP (2007)

As an important benefit, the framework agreement will be the occasion for strategies and experience sharing on promoting customs cooperation. Customs administrations would modernize their customs transit regimes, based on the WCO Transit Guidelines to facilitate movement with a view of supporting economic development of the landlocked countries. They would enhance cooperation with other border regulatory agencies to effectively implement the WTO Trade Facilitation Agreement (TFA) and would cooperate with each other to ensure smooth movement of transit goods, including data exchange of transit goods, guarantees and Customs seals. All six TSR corridor countries have signed the AfCFTA, which should also accelerate simplification and harmonization of transit agreements, transport regulatory requirements, standards, systems and customs procedures guided by the objectives of the AfCFTA.

4 - Proposed regional program/projects and support from TSR countries and partners

Trade development and its economic significance

The global economic environment is changing rapidly and leading to astonishing increases in global trade. Trade currently represents nearly 50% of world GDP. Greater participation in international trade is a prerequisite for economic growth and sustainable development in today's economy. Under the current trade environment, the focus for governments should be to enhance trade competitiveness, which encompasses the cost, time, and quality of a country's exports as well as its efficiency in importing inputs for the local industries. Promoting trade requires concerted national and regional efforts and strategies.

Proposed regional program/projects and action plan

This section outlines a proposal for regional program/projects (summarized in Table below) to be prepared and implemented in phases with the technical and financial assistance of international partners. It would also include the arrangements for overall monitoring and evaluation of the program, its achievements, results and impacts as well as the progress towards regional economic integration.

Experience has shown, especially in Africa, that regional projects involving several countries, several sectors, investments and complex policies, regulations and reforms are better identified, prepared, and implemented when they are supported by international development organizations and IFIs. It is therefore suggested that the projects proposed below, and which involve hard and soft activities be identified jointly with the concerned governments based on detailed analysis, prepared, and implemented with the financial and technical support of international partners.

The following provides the broad lines of the proposed operation which, if agreed between the governments and the international partners (UNCTAD, IsDB, etc.) would be prepared as a bankable operation and according to the project cycle steps, rules and guidelines. Program/projects development objectives. The overall objective of the proposed TSR regional program is to promote trade within the subregion and between the subregion and the rest of Africa and the world and support economic development along the corridor. The program would be implemented in two or three phases.

The objective of a first phase could be to lay the ground for increased trade within the subregion and between the subregion and the rest of the world. The second and third phase would follow with sets of investments and policies.

The objectives of these phases will be achieved by integrating customs systems and harmonizing customs regulations, improving infrastructure at border crossings, and modernizing them, and rehabilitating key missing road links, dry ports, logistics parks, environmental sustainability policies (including on climate change), private sector involvement, and capacity building. Beneficiaries of the project include

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people and entities that directly benefit from the infrastructure financed by the project, as well as private and public participants in the trading process. The private-sector participants include exporters and importers, and the providers of transport and logistics services, including trucking companies, customs brokers, and freight forwarders. The public sector participants include customs agencies and others requiring border inspection, highways, and ports agencies. Travelers and tourism would also benefit. Improved facilities and procedures will reduce the transport cost, shorten their waiting time, and improve their travelling conditions.

Phases and components. The first phase of the program could be prepared (with the support of relevant development partners such as IsDB and UNCTAD) relatively quickly and implemented over a short period of time (two years), and would consist of:

- Setting up the scheme for TSR corridor management and the institutional arrangements for program preparation and implementation (including MoU, CF, and CMM)
- Setting up the regional trade and transport facilitation framework improvements
- Trade promotion and corridor commercialization strategy and plan, trigger intercontinental trade and integration into the global supply chain
- Support for ratifying conventions, agreements (TIR and other relevant conventions) and trigger position of the TSR corridor as a trade link between north, central, and western Africa
- Preparation of next phase of the program
- Program implementation and monitoring, with clear performance indicators

The second phase of the program/project preparation of this second phase could start, with the support of development partners as soon as phase 1 starts). The second phase, with an implementation period stretching over a (longer) period of five years, would comprise four components consisting of:

- **Follow up of soft institutional arrangements and regional trade framework improvements**
 - Continuous support to TSR Corridor management scheme
 - Modernization and harmonization of customs and related services, ICTs
 - Regulation and competitiveness of logistics and transport services, and
 - Consultations between governments and businesses to support trade development among members countries.
- **Hard Infrastructure improvements**
 - Completing missing links, rehabilitation, maintenance of road corridors, improving connectivity for economic and social development along the TSR corridor, developing required infrastructure including logistics centers/parks and dry ports, improve seamless connectivity, address ports issues and efficiency
 - Connecting TSR countries production centers with markets and integrating local production centers into African and global supply chains including through development of required trade and logistics services along the corridors
 - Supporting export of main products that have been identified as potentially marketable between the TSR countries and to the rest of Africa
 - Upgrading and modernizing border crossings infrastructure and facilities
 - Promoting ICT connectivity and green technologies
 - Adopting environmental sustainability policies, including climate change, resilience, adaptation strategies supporting exchange of information about import, export and transit processes and procedures.

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- **Preparation of potential follow-up investments and national development projects**
 - Technical, economic, and financial studies as well as environmental and social impact assessments of the major investments proposed for follow-up
 - Trade development between the TSR corridor countries and between the countries and the rest of Africa and the world.
 - Prepare national economic and social development projects along the corridor.

- **Program implementation and monitoring and evaluation**
 - Management activities associated with program implementation
 - Establishing and implementing a comprehensive monitoring and evaluation system with clear performance indicators (such as traffic volumes, transport cost, turn-around time of trucks and wagons, port dwell time, border post transit times, variation of all these times)
 - Training and capacity building of concerned government agencies and entities.

Action Plan and proposed TSR trade and economic development corridor program

Program/ projects Phase	Objective	Components Content/Description	Duration	Scope and nature	Roles and responsibilities
Phase 1	Lay the ground for increased trade within subregion and between subregion and the rest of the world	Setup scheme for TSR corridor management and institutional arrangements Regional strategic trade and transport facilitation framework improvements Support ratifying conventions, agreements Trade promotion and corridor commercialization Preparation of next phase of program	2 years	Regional	Governments, CLRT with support from development partners such as IsDB, UNCTAD, etc. to prepare the project.
Phase 2	Promote trade within the subregion and between the subregion and the rest of Africa and the world, and support economic development along the corridor	Follow up on soft institutional arrangements and regional trade framework improvements Hard infrastructure and ICT improvements Preparation of (potential) follow-up investments and national development projects Program/projects implementation and monitoring and evaluation, capacity building	5 years (Could start after the first year of phase 1, or when ready for implementation)	Regional and national projects	Governments, CLRT with support from development partners such as IsDB, UNCTAD, etc.

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ANNEXES

ANNEXES

- Annex 1:** Road freight industry structure and trucking transport in the TSR countries
- Annex 2:** Trade of each TSR country with the rest of TSR countries and main trade products and activities
- Annex 3:** Aspects of informal trade in TSR sub-region, the case of informal trade between Algeria and Northern Mali and issues at the border crossings
- Annex 4:** Proposed draft MoU between TSR road corridor countries for establishing a Cooperation Framework and a Corridor Management Mechanism
- Annex 5:** Proposed Cooperation Framework among the TSR road corridor countries for trade and transport facilitation and commercialization of the corridor
- Annex 6:** Proposed Corridor Management Mechanism

ANNEX 1

**ROAD FREIGHT INDUSTRY STRUCTURE AND
TRUCKING TRANSPORT AND TRANSPORT COSTS
IN THE TSR COUNTRIES**

ALGERIA

THE REGISTRATIONS OF MOTOR VEHICLES (First Semester 2019)

Breakdown of registrations and re-registrations for the first half of 2019 according to the type of the vehicles

VEHICLE TYPE	Number	%
PASSENGER VEHICLE	634,611	69.81
TRUCK	32,412	3.57
VAN	144,321	15.88
COACH-BUS	8,546	0.94
ROAD TRACTOR	8,682	0.96
TRACTOR	8,930	0.98
SPECIAL VEHICLES	898	0.10
TRAILER	8,994	0.99
MOTORBIKE	61,649	6.78
TOTAL	909,043	100

Source : CNIS - Douanes Algériennes (https://www.ons.dz/IMG/pdf/immat_s1_2019.pdf).

Breakdown of registrations and re-registrations for the first half of 2019 by type and wilayate

WILAYATE	Tourism Vehicle	Truck	Van	Coach Bus	Road tractor	Tractor	Special Vehicle	Trailer	Motorbike	TOTAL	%
Adrar	2,971	485	855	59	176	40	9	114	371	5,080	0.56
Chlef	7,575	422	1,816	113	111	214	6	126	1,289	11,672	1.28
Laghouat	8,386	461	2,234	166	79	146	26	100	264	11,862	1.30
OumElBouaghi	6,959	463	1,660	124	88	122	20	73	442	9,951	1.09
Batna	14,771	1,518	3,394	233	385	147	53	376	1,175	22,052	2.43
Bejaia	16,667	870	4,062	547	242	175	2	337	3,159	26,061	2.87
Biskra	5,476	457	2,151	107	93	53	10	107	1,913	10,367	1.14
Bechar	6,152	462	1,675	142	245	34	5	243	523	9,481	1.04
Blida	37,817	1,021	8,173	427	287	199	18	212	8,689	56,843	6.25
Bouira	16,853	789	4,161	254	188	315	36	243	1,060	23,899	2.63
Tamanrasset	3,949	717	1,612	39	185	10	6	167	108	6,793	0.75
Tebessa	8,723	552	1,720	80	107	161	13	88	400	11,844	1.30
Tlemcen	13,934	385	2,174	117	84	283	8	146	2,172	19,303	2.12
Tiaret	17,248	1,084	4,124	188	87	533	6	133	547	23,950	2.63
TiziOuzou	9,507	548	2,201	243	109	147	26	166	550	13,497	1.48
Alger	78,596	1,834	12,206	698	751	191	90	654	6,206	101,226	11.14
Djelfa	18,782	2,049	5,613	218	186	353	39	150	1,260	28,650	3.15
Jijel	10,659	698	2,520	260	123	54	8	128	1,493	15,943	1.75
Setif	16,325	1,222	4,975	268	350	228	25	333	2,939	26,665	2.93
Saida	12,375	611	2,333	96	81	301	10	141	640	16,588	1.82
Skikda	13,201	516	2,631	207	104	336	22	262	1,003	18,282	2.01
SidiBelAbbes	19,935	638	2,980	146	138	535	14	166	985	25,537	2.81
Annaba	16,284	268	1,825	172	141	114	7	152	1,069	20,032	2.20
Guelma	7,081	326	1,343	112	61	206	3	122	753	10,007	1.10
Constantine	27,583	571	4,334	290	110	198	30	159	853	34,128	3.75
Médéa	11,841	688	3,629	257	120	184	3	140	1,113	17,975	1.98
Mostaganem	11,330	687	2,856	63	98	297	7	125	765	16,228	1.79
M'sila	17,301	1,862	5,436	220	949	328	47	752	1,371	28,266	3.11
Mascara	11,985	876	2,867	136	88	264	9	121	528	16,874	1.86
Ouargla	13,031	1,187	5,272	331	644	190	171	549	820	22,195	2.44
Oran	24,803	743	3,432	324	264	113	12	234	2,278	32,203	3.54
ElBayadh	2,834	392	1,020	47	19	107	5	23	507	4,954	0.54
Illizi	702	123	226	23	24	21	5	22	11	1,157	0.13
BordjBouArrerridj	14,784	644	4,481	188	414	192	21	377	1,661	22,762	2.50
Boumerdes	21,655	1,418	6,288	504	524	339	20	403	2,381	33,532	3.69
ElTarf	7,719	176	1,161	70	32	186	3	139	351	9,837	1.08
Tindouf	451	46	157	13	24	1	6	21	24	743	0.08
Tissemsilt	10,118	394	1,801	59	35	168	6	71	333	12,985	1.43
ElOued	6,416	679	3,757	95	197	42	15	184	566	11,951	1.31
Khenchela	7,689	319	1,896	66	59	140	28	69	280	10,546	1.16
SoukAhras	7,527	235	1,150	84	38	169	9	81	745	10,038	1.10
Tipaza	17,228	279	3,425	119	62	129	5	73	2,287	23,607	2.60
Mila	10,005	419	2,549	141	109	165	10	89	780	14,267	1.57
AinDefla	5,869	309	1,570	74	37	166	7	71	933	9,036	0.99
Naama	3,080	387	659	34	41	27	3	36	233	4,500	0.50
AinTemouchent	12,994	303	2,562	61	90	218	3	127	724	17,082	1.88
Ghardaia	6,358	643	2,568	208	187	32	7	205	1,856	12,064	1.33
Relizane	11,082	636	2,787	123	116	357	4	184	1,239	16,528	1.82
TOTAL	634,611	32,412	144,321	8,546	8,682	8,930	898	8,994	61,649	909,043	100

Breakdown of registrations and re-registrations in the first half of 2019 according to the type and age ranges of the vehicles

Type	Less than 5 years		From 5 to 9 years old		From 10 to 14 years old		From 15 to 19 years old		20 years and over		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Tourism vehicle	197,718	31.16	171,558	27.03	96,994	15.28	59,962	9.45	108,379	17.08	634,611
Truck	5,748	17.73	5,089	15.70	6,680	20.61	1,926	5.94	12,969	40.01	32,412
Van	33,899	23.49	46,063	31.92	20,421	14.15	9,076	6.29	34,862	24.16	144,321
Coach / Bus	1,469	17.19	2,337	27.35	2,266	26.52	1,271	14.87	1,203	14.08	8,546
Road tractor	1,655	19.06	1,856	21.38	1,749	20.15	509	5.86	2,913	33.55	8,682
Tractor	3,064	34.31	1,302	14.58	369	4.13	292	3.27	3,903	43.71	8,930
Special Vehicle	268	29.84	212	23.61	78	8.69	47	5.23	293	32.63	898
Trailer	2,729	30.34	1,737	19.31	1,156	12.85	359	3.99	3,013	33.50	8,994
Motorbike	58,824	95.42	1,466	2.38	164	0.27	139	0.23	1,056	1.71	61,649
TOTAL	305,374	33.59	231,620	25.48	129,877	14.29	73,581	8.09	168,591	18.55	909,043

Breakdown of registrations and registrations for the first half of 2019 by type and year of registration

Year of registration	Tourism Vehicle	Truck	Van	Coach Bus	Road tractor	Tractor	Special Vehicle	Trailer	Motorbike	TOTAL	%
Before 2009	242,524	19,350	59,201	4,141	4,642	4,437	381	4,131	1,306	340,113	37.41
2009	22,810	2,225	5,158	599	529	127	37	397	53	31,935	3.51
2010	21,919	1,307	5,682	606	460	154	24	446	102	30,700	3.38
2011	29,249	913	8,376	593	404	214	25	359	133	40,266	4.43
2012	44,136	859	11,617	413	348	283	26	304	302	58,288	6.41
2013	42,106	924	10,440	473	359	308	71	331	392	55,404	6.09
2014	34,148	1,086	9,948	252	285	343	66	297	537	46,962	5.17
2015	26,246	532	7,483	82	165	327	39	217	677	35,768	3.93
2016	16,300	301	2,497	104	161	280	41	251	2,385	22,320	2.46
2017	13,093	598	2,010	123	149	317	35	234	7,842	24,401	2.68
2018	34,254	1,249	5,384	494	422	1,006	104	831	19,509	63,253	6.96
2019	107,826	3,068	16,525	666	758	1,134	49	1,196	28,411	159,633	17.56
TOTAL	634,611	32,412	144,321	8,546	8,682	8,930	898	8,994	61,649	909,043	100

Breakdown of registrations & re-registration for the first half of 2019 according to the type and payload of the vehicles

Payload (inton)	Truck	VAN	TRAILER	TOTAL	%
0 to 0.99	-	132,111	-	132,111	71.52
1 to 1.79	-	5,948	-	5,948	3.22
1.8 to 2.99	-	6,262	3,012	9,274	5.02
3. to 4.5	5,482	-	3,004	8,486	4.59
4.6 to 6.5	5,394	-	2,978	8,372	4.53
6.6 to 8.9	5,374	-	-	5,374	2.91
9 to 12.9	5,386	-	-	5,386	2.92
13 to 16.9	4,400	-	-	4,400	2.38
17 and More	5,376	-	-	5,376	2.91
TOTAL	31,412	144,321	8,994	184,727	100

Breakdown of registrations and re-registrations for the first half of 2019 according to the power ratio (steam horse) and type

Payload in tons	Tourism Vehicle	Truck	Van	Coach Bus	Road tractor	Tractor	Special Vehicle	Motorbike	TOTAL	%
1 to 2	474,756	-	-	-	-	-	-	-	474,756	52.75
3 to 5	23,127	-	110,488	-	-	-	-	-	133,615	14.85
6 to 7	22,927	5,401	5,677	8,456	-	-	-	14,792	57,267	6.36
8 to 10	22,718	5,469	5,701	23	8,556	18	24	14,854	57,363	6.37
11 to 16	22,750	5,391	5,667	23	24	8,839	18	-	42,712	4.75
17 to 20	22,787	5,388	5,626	28	33	23	822	-	34,707	3.86
21 to 25	22,774	5,393	5,618	-	40	27	12	-	33,864	3.76
PLUS 25	22,772	5,370	5,544	16	29	23	8	32,003	65,765	7.31
TOTAL	634,611	32,412	144,321	8,546	8,682	8,930	898	61,649	900,049	100

Summary

According to available information (2019), Algeria counts over 3,500 trucking companies of different sizes. The size of the companies varies from small to large companies with sales of some \$200 million annually. Algeria also has a large number of individual truckers operating on different roads and different regions of the country. Most of these truckers are informal operators acting in the informal economy. Not much information is available on the condition and age of the trucks. There seem to be no incentives, or specific programs, to promote renewal of trucking fleets.

CHAD

Central Africa has very few structured companies. With very few exceptions, transportation services are offered by individual companies or by companies with only a few trucks. For example, on the Chad-Cameroon corridor, because of the transit agreements, Chadian transport operators provide most of the transportation.

A TFTA conducted by the World Bank (2004) found that Chad does not keep records. According to estimates, there were 1,400 tractors and 2,000 trailers in the late 1990s (Louis Berger, 2000). A more recent study (SSATP, World Bank, 2015) put the number of Chadian semi-trailers at 1,050. This sector is characterized by:

- Very small-size companies with an average of 3.5 trucks.
- Obsolete equipment (at least 10 years).
- Lack of funds for maintenance.
- Low usage rate due to significant excess capacity (exacerbated by the peak demand of the Doba oil field). Waiting time at the Ngaoundere truck station is about one week. There are many warehouses along the way. According to the study conducted by Louis Berger, tractors do not cover more than 2,300 km per month on average, compared to the European average distance of between 10,000 km and 20,000 km, depending on the activity.

According to the Ministry of Infrastructure and Equipment, there are 368 public freight road transporters identified, operating a total of 958 vehicles, including 771 heavy trucks with a payload of more than 20 tons. Trucking industry is regulated through the Bureau national de fret tchadien (BNF) on Chad side and the Bureau de gestion du fret terrestre camerounais on Cameroon side (ref. Ministry of Infrastructure and Equipment, Chad).

- As reported by the Ministry of Infrastructure and Equipment, there are three Chadian transport operators' unions:
- UNATRANS, of which most transport operators are members, and which has the largest pool of trucks;
- SNTLT, Syndicat des transporteurs libres du Tchad (union of free transporters), which seems to focus more on international transportation; and
- SNTRT, Syndicat National des Transports Routiers du Tchad (union of national road transporters).

However, for international commercial transactions, the general organization of transit traffic is almost entirely carried out by external trading partners or by major international freight forwarders, who decide on the choice of carriers, while respecting the regulations on freight quotas between Chadian and foreign carriers (as reported by the Ministry of Infrastructure and Equipment of Chad; Réseaux des Transports en République du Tchad; Chad.pdf (comcec.org)).

MALI

In Mali, the Malian Council of Road Carriers (CMTR, Conseil Malien des Transporteurs Routier) is mandated to bring carriers together and serve as an interface with the public authorities. The delivery of the car certificate has also been granted to the CMTR, but it still needs resources to manage this tool to track domestic and international traffic due to a lack of qualified human resources. Domestic traffic still lacks tracking, intra-regional cargo volumes are not known accurately, and inter-regional trade is hard to predict. International traffic is also controlled by Malian warehouses in neighboring transit ports and through their land border offices.

Regulations governing access to the profession exist to some extent, but they are not enforced. In addition, the current legislation is incomplete and does not clearly define the scope and categories of transport involved. For example, in Mali, existing laws and regulations do not distinguish between third-party transportation (commercial transport) and self-transportation. From a strictly legal point of view, the profession does not exist as such.

Other countries in the region have followed and adopted fleet renewal programs. Mali has already set up a tax-exempt mechanism several years ago for the acquisition of new vehicles for interstate transport (UNCTAD, 2007).

NIGER

As reported in Raballand and Macchi study in 2009 (Transport Prices and Costs: The Need to Revisit Donors' Policies in Transport in Africa, 2009), Competition in the trucking industry is a prerequisite for lower transport price. However, trucking operators from landlocked countries, especially in West and Central Africa, have benefited from strong formal and informal protection. While bilateral freight allocation protects the trucking industry of landlocked countries, it "de facto" creates cartels and slows down market and regional integration. The operators, so protected, often do not meet regulatory requirements, such as having enough transport capacity.

For instance, Niger fleet is not appropriate to handle freight peaks and for various reasons, Niger fleet is less competitive than coastal countries' fleets. Niger has repeatedly attempted to abolish the system of distribution of traffic rights, which is, by definition, non-competitive. A 2007 government decree stipulates that the 2/3-1/3 rule, that distributes road transport between local transport companies and transport companies in the transit countries, remains in force, but that all operations constituting the Niger quota (2/3) are open to total competition, as opposed to the turn-of-the-go system. However, a workshop organized by the government to discuss this decree with various stakeholders in the sector, has been boycotted by the transport associations, and the decree remains in many respects a dead letter (Macchi and Raballand, 2009).

NIGERIA

Road freight transport is relatively well organized in Nigeria. Created in 1988, the Nigerian Association of Road Transport Owners (NARTO) is the umbrella body for commercial vehicle owners in Nigeria that are into haulage, logistics, cargo, movement of passengers, and all forms of transportation with the aim of protecting their interest.

Its objectives are to promote and protect the interest of NARTO members in the road haulage industry in Nigeria and generally those of Nigerian road haulage and commercial transport operations.

It includes over 3,000 registered members (trucking companies and truckers) and covers over 156,000 trucks and commuter vehicles in service (NARTO – Nigerian Association of Road Transport Owners – Service Dedication to the Nation, <https://narto.org>).

Almost 90% of the trailers on Nigeria's roads are second-hand but still considered in working condition. There are no incentive plans for fleet renewal.

TUNISIA

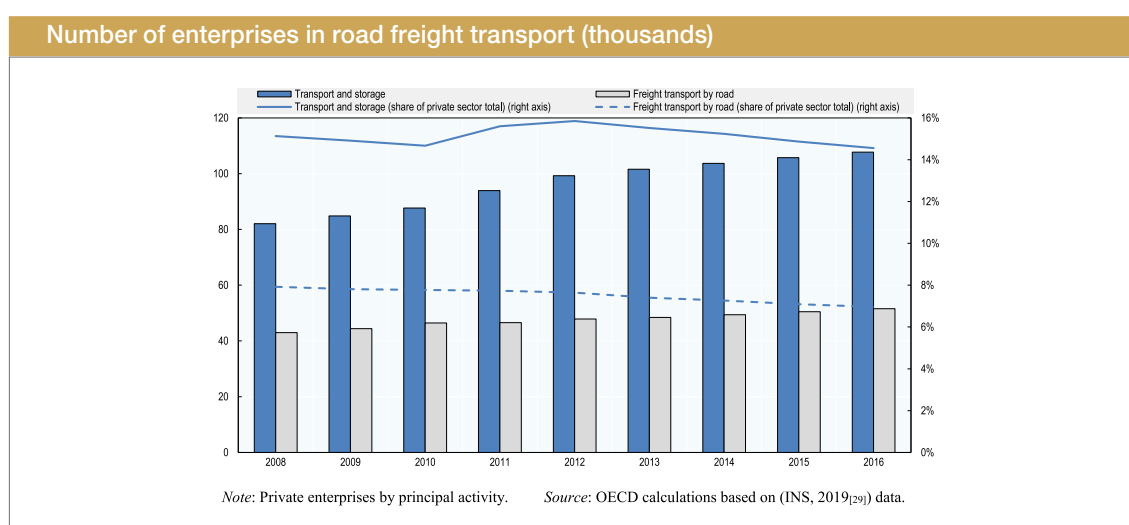
Breakdown of the fleet for the transport of goods as at 12/31/2019

Vehicle Category	Company		Individual		Total	
	Number	load (Tons)	Number	load (Tons)	Number	load (Tons)
Road tractor	6,567	0	1,444	0	8,011	0
Truck	1,841	21,592	325	3,358	2,166	24,950
Trailer	106	2,986	7	89	113	3,075
Semi-Trailer	7,364	189,494	1,421	32,325	8,785	221,819
Total	15,878	214,072	3,197	35,772	19,075	249,844

Source: http://www.transport.tn/uploads/Statistique/Transport_routier_marchandises_fr.pdf.

Road freight transport accounts for 86% of total land freight transport and represents the second most-used transport modality for import and export activities. However, over 90% of external trade is by maritime transport (according to BNP Paribas, 2019, Le transport de marchandises en Tunisie - TRADE Solutions BNP Paribas). Freight transport by rail is far less significant.

Available data from the Tunisia National Institute of Statistics (INS) shows that, in 2016, road freight transport accounted for almost half the total number of enterprises in the Tunisian transport and storage sectors. According to INS, the total number of enterprises in road freight transport grew from 42,979 in 2008 to 51,546 in 2016. Their annual growth rate of 2.3% lagged the 3.5% average annual growth of the transport and storage sector and the 4% of the total private-sector enterprises. As a result, the share of both the transport and storage sector and the road freight transport in the total number of enterprises has dropped. By 2016, the transport and storage sector accounted for about 14.6% of total private-sector enterprises, compared to 15.1% in 2008.

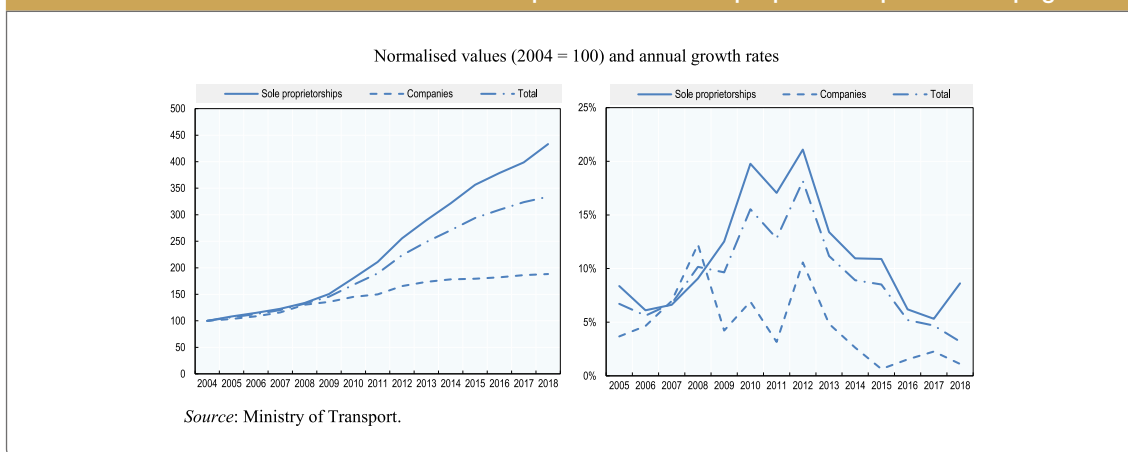


Source: <https://www.oecd.org/daf/competition/ca-tunisia-review-2019-en.pdf>

As per OECD report, 2019 (ca-tunisia-review-2019-en.pdf (oecd.org)), besides core activities of road freight transport, sectoral growth has been accompanied by increases in turnover and the number of enterprises in related activities. For example, the number of refrigerated warehouses doubled between 2008 and 2017, while the number of enterprises offering auxiliary services to land transportation quadrupled. By 2017, besides road haulage entities for own- or third-party use, the sector comprised 30 non-refrigerated and 1,281 refrigerated warehouses, 475 enterprises offering services incidental to land transportation and 330 enterprises engaged in other transportation support activities.

According to OECD report (2019), the number of sole proprietorships in road haulage has grown at a faster pace than that of companies. According to the Ministry of Transport, in 2004, there were 800 sole proprietorships and 436 companies. By 2018, the number of companies had increased by 90%, while that of sole proprietorship by 300%. As a result, while companies accounted for 35% of the total number of entities in 2004, their share had fallen to 20% by 2018. The absolute and relative increase in the share of sole proprietorships shows the market's further fragmentation. The figure below shows that the highest increase in the relative share of sole proprietorships took place between 2009 and 2012. Annual growth rates of the number of sole proprietorships reached levels of about 20% in 2010 and 2012, while the evolution of companies was more moderate. The growth rate has constantly exceeded that of companies since 2009, the year of the adoption of the Ministry of Transport's new regulation.

Evolution of the number of authorised transport entities: sole proprietorships and companies



Source: <https://www.oecd.org/daf/competition/ca-tunisia-review-2019-en.pdf>.

Composition of the Tunisian HGV fleet with GVW exceeding 12 t (2018)

Table 6.1. Composition of the Tunisian HGV fleet with GVW exceeding 12 t (2018)

	Companies	Sole proprietorships
Number of entities	821	3 465
Entities with vehicles	596	1 912
(As a share of all entities)	72.6%	55.2%
Total number of vehicles	15 680	3 268
Total laden weight (tonnes)	249 516	36 796
Average age of vehicles (years)	12.4	7.7

Note: Ministry of Transport estimates, December 2018.

Source: Ministry of Transport

Source: <https://www.oecd.org/daf/competition/ca-tunisia-review-2019-en.pdf>.

Requirements on vehicles for each type of activity in road freight transport

Table 6.2. Requirements on vehicles for each type of activity in road freight transport

	Tonnage	Fleet size	Age of vehicles in initial fleet	Age limits of new vehicles added to fleet
Road haulage for own account	Not restricted	Not restricted	Not restricted	Not restricted
Hire-or-reward road haulage – sole proprietorship	Not restricted	1 vehicle only	Up to 5 years	Up to 5 years
Hire-or-reward road haulage – companies	Minimum of 300 t	Minimum 18 vehicles (6 of which motor vehicles)	Up to 2 years	Not restricted
Commercial truck rental for road-haulage operations	Minimum of 300 t	Minimum 18 vehicles	Up to 1 year	Up to 1 year

Note: Fleet size refers to the number of vehicles over 12 t GVW. Age of vehicle refers to its age on the date of application to the Ministry of Transport for an operating card.

Source: Tunisian legislation.²⁶

Source : <https://www.oecd.org/daf/competition/ca-tunisia-review-2019-en.pdf>

ANNEX 2

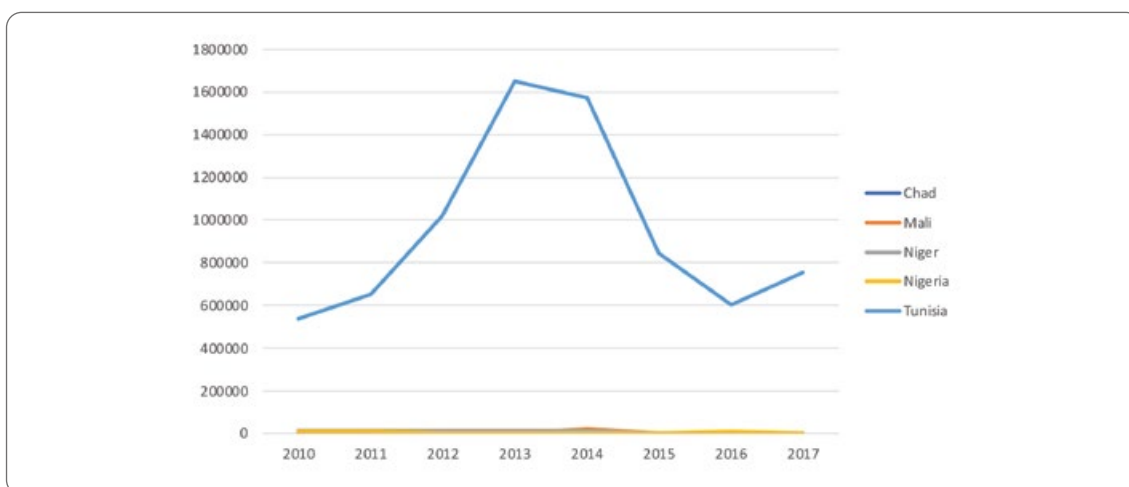
TRADE OF EACH TSR COUNTRY
WITH THE REST OF TSR COUNTRIES AND
MAIN TRADE PRODUCTS AND ACTIVITIES⁷⁹

⁷⁹ Based on data collected by team from different sources (AfDB, WTO, WCO, yearly customs reports of TSR countries, etc).

ALGERIA

EXPORT

Algeria Total Exports (in \$1,000)						
Year	Chad	Mali	Niger	Nigeria	Tunisia	Grand Total
2010	28	278	13,553	10,177	536,252	560,287
2011	10	1,022	13,355	10,785	650,330	675,502
2012	51	581	13,950	734	1,018,687	1,034,003
2013	104	704	12,244	1,385	1,649,047	1,663,484
2014	190	20,567	11,882	685	1,574,586	1,607,910
2015	195	814	2,492	443	846,023	849,967
2016	16	999	311	8,021	603,483	612,830
2017		1,185	330	325	753,422	755,263
Grand Total	593	26,150	68,119	32,555	7,631,829	7,759,246

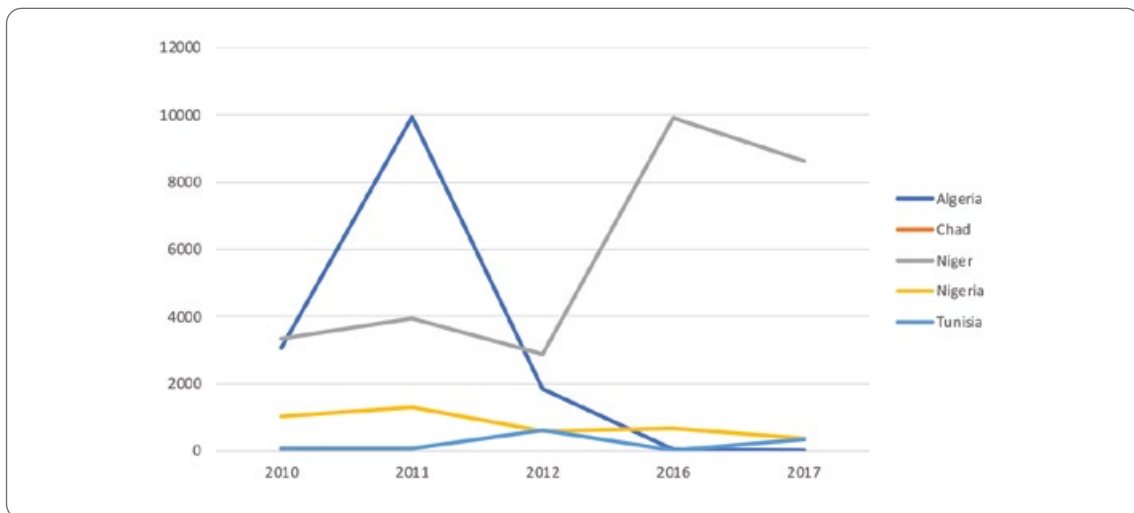


Top 3 product category Algeria import (in \$1,000)									
Partners	2010	2011	2012	2013	2014	2015	2016	2017	Grand Total
Chad		158	3,018	70	229			29	3,504
Cotton			3,018						3,018
Oil seeds and oleaginous fruits; mi				70	229			29	327
Salt; sulfur; earths and stone; pl		158							158
Mali		88	2,500	0	3	5,249	58	197	8,095
Cotton			2,500			5,220		181	7,901
Electrical machinery and equipment		3		0	3	29	58	16	109
Meat and edible meat offal		85							85
Niger	1		19		533	197,46	5	79	20,384
Coffee, tea, malt and spices			19			149	5	79	252
Mineral fuels, mineral oils, and pro						19,597			19,597
Salt; sulfur; earths and stone; pl	1				533				534
Nigeria	399	577	1,046	905	1,599	523	1,272	1,809	8,130
Coffee, tea, malt and spices	8	34	0			35		125	202
Miscellaneous chemical products							708		708
Oil seeds and oleaginous fruits; mi	391	544	1,046	905	1,599	488	564	1,684	7,220
Tunisia	149,910	142,777	130,592	151,247	226,758	232,733	187,285	98,539	1,319,842
Articles of iron or steel	61,886	56,915	68,512	66,218	70,066	68,106	53,212	38,333	483,248
Inorganic chemicals; organic or ion	35,267	39,510	39,166	43,644	60,686	43,869	47,156	31,948	341,245
Salt; sulfur; earths and stone; pl	52,756	46,352	22,914	41,385	96,007	120,758	86,918	28,258	495,348
Grand Total	150,309	143,601	137,176	152,222	229,123	258,251	188,619	100,654	1,359,955

MALI

EXPORT

Mali total Exports in \$1000						
Year	Algeria	Chad	Niger	Nigeria	Tunisia	Grand Total
2010	3,057	14	3,328	1,013	69	7,480
2011	9,934	21	3,947	1,295	53	15,251
2012	1,852		2,880	581	609	5,923
2016	30	0	9,906	663	0	10,599
2017	2		8,620	358	346	9,327
Grand Total	14,875	35	28,681	3,911	1,077	48,580



Top 3 product category Mali exports (in \$1,000)						
Partners	2010	2011	2012	2016	2017	Grand Total
Algeria	3,057	8,278	690	30		12,055
Edible fruit and nuts; peel of citrus	540	2,874	292	30		3,735
Live animals; animal products	2,517	2,875	399			5,791
Optical, photographic, cinematography		2,529				2,529
Chad	31	12				43
Miscellaneous manufactured articles		9				9
Optical, photographic, cinematography	14	3				17
Commodities not specified according	17					17
Niger	2,560	3,396	2,074	9,385	7,734	25,150
Beverages, spirits, and vinegar		1,262	151	577	681	2,672
Cereals	1,921	85	681			2,686
Live animals; animal products	639	2,049	1,243	8,808	7,053	19,792
Nigeria	921	1,264	538	145	177	3,045
Live animals; animal products	418	769			4	1,190
Manufactures of straw, of esparto o	443	399	382	19		1,243
Raw hides and skins (other than furs)	61	96	156	126	173	612
Tunisia	69	0	516	0	345	930
Cotton	69		516			585
Furniture; bedding, mattresses, mat					152	152
Plastics and articles thereof	0	0	0	0	193	193
Grand Total	6,637	12,950	3,819	9,561	8,256	41,222

IMPORT

Mali total Imports (in \$1,000)						
Year	Algeria	Chad	Niger	Nigeria	Tunisia	Grand Total
2010	1,541	14	448	7,702	11,408	21,113
2011	1,897		45	5,812	12,857	20,612
2012	1,845	0	104,748	2,470	5,513	114,577
2016	2,316	2	16,883	1,810	7,021	28,032
2017	2,615	18	101,459	879	10,068	115,040
Grand Total	10,216	34	223,583	18,674	46,868	299,375

Top 3 product category Mali import (in \$1,000)						
Partners	2010	2011	2012	2016	2017	Grand Total
Algeria	896	1,088	1,282	1,813	1,818	6,897
Edible fruit and nuts; peel of citrus	789	947	841	829	707	4,114
Optical, photographic, cinematography	107	138	152	349	315	1,060
Preparations of cereals, flour		4	289	635	795	1,723
Chad	7		0	2	17	26
Articles of apparel and clothing ac	2				0	2
Furniture; bedding, mattresses, mat	2				1	3
Nuclear reactors, boilers, machinery	4		0	2	16	21
Niger			104,493	16,760	101,432	222,684
Coffee, tea, malt, and spices			291		5	296
Live trees and other plants; bulbs,			2	233		235
Mineral fuels, mineral oils, and pro			104,200	16,527	101,427	222,154
Nigeria	2,307	5,055	1,514	549	286	9,711
Miscellaneous chemical products	1,553	1,371	1,092	154		4,170
Miscellaneous edible preparations		3,238		30		3,267
Plastics and articles thereof	754	446	422	365	286	2,273
Tunisia	6,980	8,309	2,846	4,599	5,737	28,470
Electrical machinery and equipment	213	3,276	435	329	1,200	5,453
Plastics and articles thereof	2,012	2,611	1,852	3,069	3,296	12,840
Salt; sulfur; earths and stone; pl	4,755	2,422	558	1,201	1,241	10,176
Grand Total	10,190	14,452	110,135	23,722	109,288	267,788

NIGER

EXPORT

Niger Total Exports (in \$1,000)						
Year	Algeria	Chad	Mali	Nigeria	Tunisia	Grand Total
2010	8,620	96	304	53,550	741	63,311
2011	518	380	77	52,876	1,030	54,882
2012	1,239	367	114,061	145,507	2,980	264,154
2013	1,329	40	2,749	205,623	1,052	210,793
2014	2,174	349	7,053	133,210	1,256	144,043
2015	1,640	45	23,052	98,680	1,191	124,608
2016	2,038	24	52,377	87,971	1,196	143,606
2017	1,380	39,041	103,369	751,762	19	895,571
2018	1,350	3,747	61,370	178,962	4,399	249,828
Grand Total	20,287	44,090	364,413	1,708,142	13,865	2,150,796

Top 3 product category Niger exports (in \$1,000)										
Partners	2010	2011	2012	2013	2014	2015	2016	2017	2018	Grand Total
Algeria	6,796	226	1,026	1,301	1,929	1,166	1,045	234	988	14,711
Nuclear reactors, boilers, machinery	2,553							3	1	2,556
Preparations of cereals, flour		226	1,026	1,301	1,929	1,166	1,045	58	977	7,728
Vehicles other than railway or tram	4,244							173	10	4,427
Chad					18			28,998	52	29,068
Animal or vegetable fats and oils a								19,526		19,526
Sugars and sugar confectionery					13			4,705	37	4,754
Vehicles other than railway or tram					5			4,767	16	4,788
Mali	4	0	113,462	2,711	6,598	22,868	51,855	102,795	60,991	361,285
Mineral fuels, mineral oils, and pro		0	113,457	2,709	6,598	22,868	51,678	99,517	60,575	357,402
Raw hides and skins (other than furs)	2		4	2			177	32	416	633
Vehicles other than railway or tram	1		1					3,247		3,249
Nigeria	46,755	42,445	133,465	198,523	124,949	91,899	81,791	455,725	158,614	1,334,166
Animal or vegetable fats and oils a			0		2		8	326,322	219	326,552
Live animals; animal products	46,746	41,332	58,641	17,797	14,538	7,428	6,255	7,656	12,222	212,614
Mineral fuels, mineral oils, and pro	9	1,113	74,823	180,726	110,408	84,471	75,529	121,747	146,173	795,000
Tunisia	732	1,027	2,955	1,036	1,256	1,177	1,191		4,376	13,751
Cereals							87			87
Other made-up textile articles; set	507	547	1,368	781	356	277	357		204	4,397
Preparations of cereals, flour	225	480	1,587	255	900	900	747		4,172	9,266
Grand Total	54,288	43,698	250,908	203,571	134,750	117,110	135,883	587,752	225,021	1,752,981

IMPORT

Niger Total Imports (in \$1,000)						
Year	Algeria	Chad	Mali	Nigeria	Tunisia	Grand Total
2010	11,427	3	3,644	61,621	7,699	84,395
2011	9,108		686	54,122	7,944	71,861
2012	16,510	87	3,191	71,869	7,728	99,385
2013	17,966	267	1,080	49,598	6,015	74,925
2014	18,352		1,321	50,364	7,088	77,125
2015	11,410	9	1,209	60,460	4,761	77,849
2016	9,570	20	584	76,877	6,238	93,289
2017	16,521	259	983	82,631	10,124	110,519
2018	29,015	330	840	127,021	11,838	169,045
Grand Total	139,878	977	13,538	634,563	69,436	858,392

Top 3 product category Niger imports (in \$1,000)										
Partners	2010	2011	2012	2013	2014	2015	2016	2017	2018	Grand Total
Algeria	2,305	4,724	11,993	16,226	16,067	9,749	8,233	14,014	24,391	107,701
Edible fruit and nuts; peel of citrus	1,201	2,031	1,892	2,253	1,904	1,529	1,118	1,671	2,659	16,257
Preparations of cereals, flour	598	1,279	3,723	4,656	4,302	3,604	3,138	3,304	5,649	30,253
Products of the milling industry; m	506	1,414	6,377	9,317	9,861	4,617	3,977	9,039	16,083	61,190
Chad	3		86	267			1	216	245	818
Electrical machinery and equipment			86				1	141	10	239
Nuclear reactors, boilers, machinery	3							75		78
Optical, photographic, cinematography				267					235	501
Mali	3,079	94	2,040	641	556	255	366	522	423	7,975
Cereals	2,940			90			35			3,066
Pharmaceutical products	38	31	102	67	75	21	258	195	381	1,169
Products of the milling industry; m	102	62	1,938	484	480	234	72	326	42	3,741
Nigeria	59,681	71,400	56,554	67,357	57,876	66,354	89,615	97,804	125,237	691,877
Mineral fuels, mineral oils, and pro	24,957	33,458	25,383	26,166	20,658	25,448	28,362	25,435	38,967	248,835
Salt; sulfur; earths and stone; pl	7,959	3,187	1,396	3,033	5,062	10,120	29,539	40,212	49,738	150,246
Tobacco and manufactured tobacco	26,765	34,754	29,775	38,159	32,156	30,786	31,714	32,156	36,532	292,796
Tunisia	6,844	6,594	6,200	4,228	5,667	3,546	4,073	8,111	8,936	54,200
Other made-up textile articles; set	2,248	1,092	1,614	1,233	380	336	807	800	342	8,851
Preparations of cereals, flour	4,009	4,726	3,957	2,168	4,087	2,238	2,221	5,880	7,535	36,821
Salt; sulfur; earths and stone; pl	587	776	629	827	1,200	973	1,045	1,431	1,059	8,527
Grand Total	71,912	82,811	76,873	88,719	80,165	79,904	102,288	120,666	159,232	862,571

NIGERIA

EXPORT

Nigeria total Exports (in \$1,000)						
Year	Algeria	Chad	Mali	Niger	Tunisia	Grand Total
2010	753,632	36,680	1,512		3	791,827
2011	4,528,467	37,748	15,012		2,306	4,583,532
2012	1,348,200	22,052	3,838	3,140	3,694	1,380,923
2013	2,759	65,540	14,109	117,959	1,022	201,389
2014	551	22,175	6,368	977,396	1,633	1,008,123
2015	1,082	8,952	1,940	26,856	48,296	87,126
2016	820	73	1,545	38,423	9,263	50,124
2017	591	82	2,473	56,944		60,091
2018		9	2,524	77,121	304	79,958
2019	1,056	3,024	1,545	62,732	1,166	69,522
Grand Total	6,637,158	196,334	50,866	1,360,572	67,685	8,312,616

Top 3 product category Nigeria exports (in \$1,000)

Partners	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Grand Total
Algeria	708,868	4,416,543	1,286,420								6,411,831
Cocoa and cocoa preparations	22,965	12,910	32,664								68,540
Mineral fuels, mineral oils, and pro	617,297	4,394,933	866,650								5,878,880
Ships, boats, and floating structure	68,605	8,700	387,106								464,412
Chad	18,483	32,807	21,035	62,210	21,675	8,293				2,971	167,475
Footwear, gaiters, and the like	10,661	8,424	12,091	30,811	12,183	4,352					78,522
Mineral fuels, mineral oils, and pro	4,681	17,817	1,449							2,971	26,917
Plastics and articles thereof	3,142	6,566	7,496	31,399	9,492	3,942					62,035
Mali	326	13,654	3,718	7,716	5,804	1,382	1,437	2,326	2,234	1,434	40,031
Cotton		704	3,012	6,001	4,526						14,243
Miscellaneous chemical products	326	1,393	706	1,716	1,278	1,328	1,427	2,326	2,218	1,404	14,122
Miscellaneous edible preparations		11,556				54	10		16	30	11,667
Niger			1,234	68,827	1,002,814	55,045	67,559	84,322	105,647	77,568	1,463,016
Mineral fuels, mineral oils, and pro				175	956,967	465	24,967	27,627	31,895	30,363	1,072,458
Salt; sulfur; earths and stone				3,992	4,718	16,846	12,723	27,359	39,751	25,874	131,264
Tobacco and manufactured tobacco			1,234	64,660	41,128	37,734	29,868	29,336	34,001	21,332	259,294
Tunisia		2,062	3,468	562	1,411	47,349	9,263			612	64,727
Lead and articles thereof		330	626	163						535	1,653
Mineral fuels, mineral oils and pro		1,066				42,406	9,263				52,734
Oil seeds and oleaginous fruits; mi		667	2,843	399	1,411	4,943				77	10,340
Grand Total	727,677	4,465,066	1,315,876	139,316	1,031,704	112,069	78,259	86,648	107,881	82,585	8,147,080

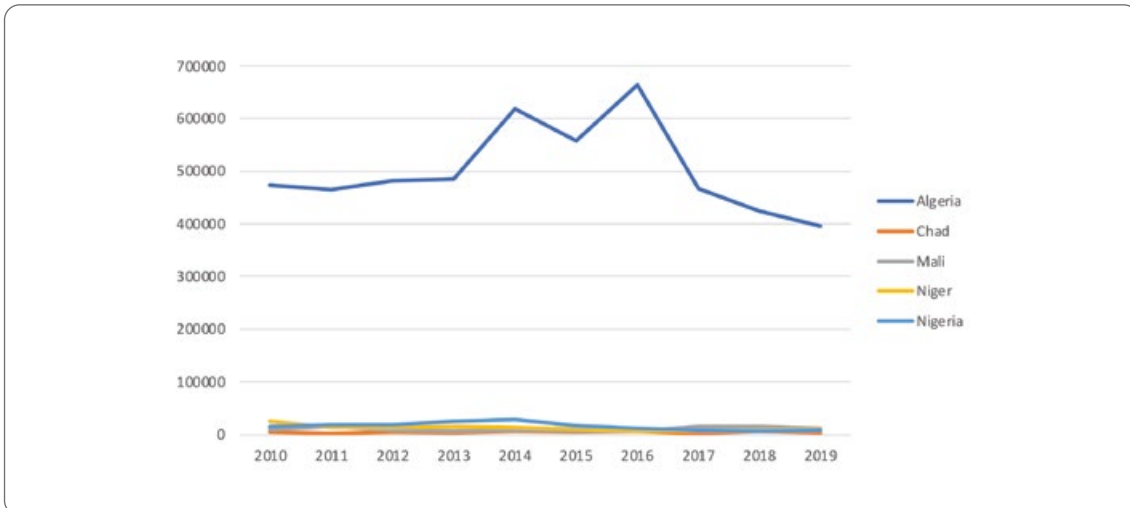
Nigeria total Imports (in \$1,000)						
Year	Algeria	Chad	Mali	Niger	Tunisia	Grand Total
2010	799,397	285,054	50		23,692	1,108,194
2011	541,391	4,228	244		33,951	579,815
2012	202,994	694	38	3,631	34,264	241,622
2013	3,284	7,449	1,323	283,363	22,227	317,647
2014	606	4,467	34	7,288	29,683	42,079
2015	660	925	96	6,717	20,088	28,486
2016	5,993	970	98	4,612	19,195	30,868
2017	3,676	1,553	114	3,153	11,740	20,236
2018	652	1,996	0	6,373	94,684	103,706
2019	2,668	1,418	3	1,905	11,179	17,174
Grand Total	1,561,322	308,755	2,001	317,042	300,704	2,489,824

Top 3 product category Nigeria imports (in \$1,000)											
Partners	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Grand Total
Algeria	517,915	398,918	131,776			2		2,824	18	386	1,051,839
Cereals	18,606	59,387	96,439								174,432
Mineral fuels, mineral oils and pro	6,745	308,888	315					2,815			318,763
Vehicles other than railway or tram	492,564	30,642	35,023			2		9	18	386	558,644
Chad	223,241										223,241
Ceramic products	72,030										72,030
Inorganic chemicals; organic or inorganic	79,207										79,207
Man-made staple fibers	72,004										72,004
Mali		151		1,277							1,428
Cotton				1,073							1,073
Edible fruit and nuts; peel of citrus				204							204
Miscellaneous chemical products		151									151
Niger			3,305	1,601,824	97	46	8	2	10	18	1,605,310
Mineral fuels, mineral oils and pro			3,305	258,773							262,078
Plastics and articles thereof				18,912		46	7	2	10	18	18,995
Tobacco and manufactured tobacco su				1,324,140	97		1				1,324,237
Tunisia	2,756	16,836	19,132	17,204	24,476	15,500	16,936	10,479	93,650	10,121	227,089
Inorganic chemicals; organic or inorganic	1,478	12,348	13,139	14,013	18,489	9,048	5,434	1,021	907	864	76,739
Mineral fuels, mineral oils, and pro							170		84,626		84,796
Salt; sulfur; earths and stone; pl	1,277	4,488	5,993	3,191	5,987	6,453	11,332	9,458	8,117	9,257	65,554
Grand Total	743,912	415,905	154,213	1,620,304	24,573	15,548	16,944	13,305	93,678	10,525	3,108,907

TUNISIA

EXPORT

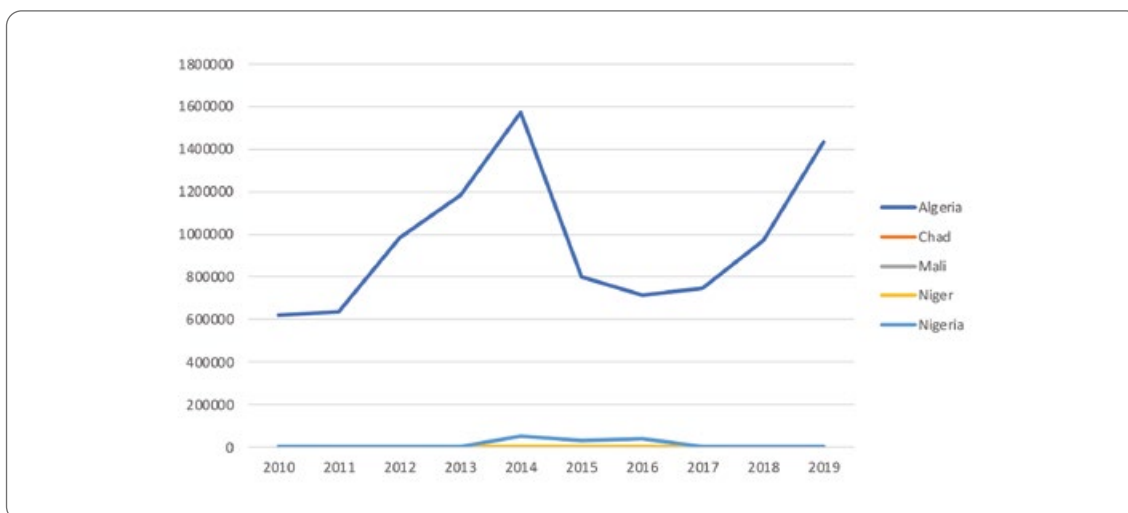
Tunisia Total Exports (in \$1,000)						
Year	Algeria	Chad	Mali	Niger	Nigeria	Grand Total
2010	474,237	6,018	10,219	25,234	15,188	530,897
2011	465,876	1,466	14,949	13,850	18,583	514,725
2012	482,459	5,367	9,143	13,589	17,997	528,556
2013	485,924	3,638	6,960	15,960	25,711	538,194
2014	618,742	7,128	7,914	13,224	28,213	675,221
2015	557,909	5,342	6,404	10,314	16,438	596,408
2016	663,868	6,888	6,510	7,179	12,689	697,134
2017	466,016	2,543	14,967	8,276	8,531	500,332
2018	424,246	6,220	14,640	9,345	7,024	461,476
2019	396,162	4,084	11,223	10,691	8,815	430,975
Grand Total	5,035,440	48,695	102,930	127,663	159,188	5,473,917



Top 3 product category Tunisia exports (in \$1,000)											
Partners	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Grand Total
Algeria	186,128	136,146	171,110	149,067	242,784	261,354	299,222	146,386	136,200	113,242	1,841,639
Articles of iron or steel	58,824	61,646	71,801	66,308	77,416	67,725	80,364	47,020	64,350	46,002	641,457
Nuclear reactors, boilers, machinery	89,388	37,689	68,976	49,703	69,834	86,463	154,675	72,492	57,692	54,927	741,839
Salt; sulfur; earths and stone;	37,916	36,811	30,333	33,056	95,534	107,166	64,184	26,874	14,157	12,313	458,344
Chad	3,124	630	2,830	2,035	3,300	2,271	3,476	1,607	3,383	1,799	24,455
Electrical machinery and equipment	2,156	435	440	922	1,475	703	810	673	709	772	9,094
Nuclear reactors, boilers, machinery	15	37	2,092	527	1,147	599	2,491	428	2,568	821	10,725
Preparations of cereals, flour,	952	159	297	587	679	968	176	506	106	206	4,635
Mali	3,087	4,395	2,197	2,516	4,003	3,181	3,261	6,923	4,203	3,754	37,521
Electrical machinery and equipment	1,175	2,464	611	574	354	900	499	1,559	607	898	9,640
Salt; sulfur; earths and stone; pl	1,912	1,487	1,521	1,843	2,774	1,993	2,003	1,983	2,280	2,067	19,863
Vehicles other than railway or tram		444	65	100	875	288	759	3,381	1,317	789	8,018
Niger	22,007	12,185	11,490	11,894	10,150	7,319	3,766	5,922	5,202	5,085	95,020
Other made-up textile articles; set	1,454	1,368	1,178	791	406	923	437	277	388	984	8,206
Preparations of cereals, flour,	19,752	10,232	9,845	10,328	8,523	4,966	2,099	4,491	3,972	3,552	77,760
Salt; sulfur; earths and stone;	801	585	467	775	1,220	1,430	1,230	1,154	842	549	9,054
Nigeria	6,709	11,430	15,773	21,495	24,161	15,023	12,073	7,931	5,613	8,112	128,320
Inorganic chemicals; organic or inorganic	4,635	6,267	11,917	15,497	15,926	5,187	3,922	1,420	742	467	65,980
Plastics and articles thereof	161	645	1,246	1,075	2,117	1,737	404	970	148	526	9,029
Salt; sulfur; earths and stone; plastic	1,913	4,519	2,610	4,923	6,118	8,099	7,746	5,540	4,723	7,119	53,311
Grand Total	221,054	164,787	203,400	187,007	284,399	289,148	321,799	168,769	154,601	131,992	2,126,955

IMPORT

Tunisia total Imports (in \$1,000)						
Year	Algeria	Chad	Mali	Niger	Nigeria	Grand Total
2010	621,468	5	23	0	95	621,591
2011	637,254		37	1	194	637,486
2012	982,408		825	1	3,191	986,424
2013	1,185,238		943	0	1,889	1,188,070
2014	1,572,489	83	821	36	51,684	1,625,113
2015	801,324		157	218	29,465	831,164
2016	713,167	1	115	6	37,810	751,099
2017	748,258	36	9	0	1,812	750,115
2018	972,822	26	7		2,461	975,315
2019	1,432,404	8	358	0	1,094	1,433,864
Grand Total	9,666,830	158	3,294	262	129,695	9,800,240



Top 3 product category Tunisia imports (in \$1,000)											
Partners	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Grand Total
Algeria	576,734	595,783	956,409	1,160,514	1,548,809	783,035	692,636	719,005	917,953	1,381,589	9,332,467
Glass and glass-ware	6,983	5,210	7,586	9,020	7,812	8,081	6,505	8,818	8,802	7,830	76,647
Mineral fuels, mineral oils, and pro	558,974	561,857	948,279	1,151,426	1,493,937	751,814	685,071	706,370	876,726	1,322,893	9,057,347
Sugars and sugar confectionery	10,777	28,716	544	69	47,060	23,140	1,060	3,817	32,425	50,867	198,474
Chad					83			36	26	8	153
Lac; gums, resins, and other vegetables								10	26	8	44
Oil seeds and oleaginous fruits; mi								26			26
Raw hides and skins (other than furs)					83						83
Mali	4	37	820	934	812	157	109		6	350	3,229
Cotton			577	934	812	157	108			350	2,938
Man-made staple fibers			242						6		248
Vehicles other than railway or tram	4	37					1				42
Niger					36	216	6				257
Cotton					36	139					175
Printed books, newspapers, pictures						21					21
Raw hides and skins (other than furs)						56	6				62
Nigeria			2,431	1,290	51,503	28,918	37,301	1,475	1,294	345	124,556
Mineral fuels, mineral oils, and pro					48,378	27,411	35,731				111,520
Oil seeds and oleaginous fruits; mi			2,431	773	1,278	316	423		1	1	5,223
Raw hides and skins (other than furs)				517	1,847	1,191	1,147	1,475	1,293	344	7,814
Grand Total	576,738	595,820	959,659	1,162,739	1,601,243	812,326	730,051	720,516	919,278	1,382,292	9,460,662

ANNEX 3

ASPECTS OF INFORMAL TRADE IN TSR SUB-REGION,
THE CASE OF INFORMAL TRADE BETWEEN
ALGERIA AND NORTHERN MALI AND ISSUES
AT THE BORDER CROSSINGS⁸⁰

⁸⁰ Based on Algeria–Mali Trade: The Normality of Informality, Sami Bensassi, Anne Brockmeyer, Matthieu Pellerin and Gael Raballand, Democracy and Economic Development, ERF 21st Annual Conference, March 20-22, 2015 | Gammarth, Tunisia 2015 - <https://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>

The official statistics presented a puzzle: according to the Algerian authorities, Algeria showed a trade surplus with Mali. According to Malian authorities, Mali showed a trade surplus with Algeria. In addition, it appeared that there was no correlation between the Malian export flows to Algeria reported by the Malian authorities and the import flows from Mali reported by the Algerian authorities. The weekly turnover of trade in Mali in 2014 has been estimated at about \$0.74 million, and thus Malian imports can be estimated conservatively at approximately \$30 million a year.

This amount is about two-thirds lower than in 2011, the peak of trade between Mali and Algeria. In 2011 imports were estimated at more than \$85 million from Algeria to Mali, with 120 trucks crossing the border each week. However, Algerians officially declared \$1.02 million in exports and Malians \$1.89 million in imports in 2011, representing 1.2% and 2.2% respectively of the estimated volume of informal trade. In 2014 the margins are about 20%, as opposed to 30% in 2011. Informal trade is very important in supplying northern Mali and allowing regions in the north to benefit from prices lower than if supplies came from the south of the country.

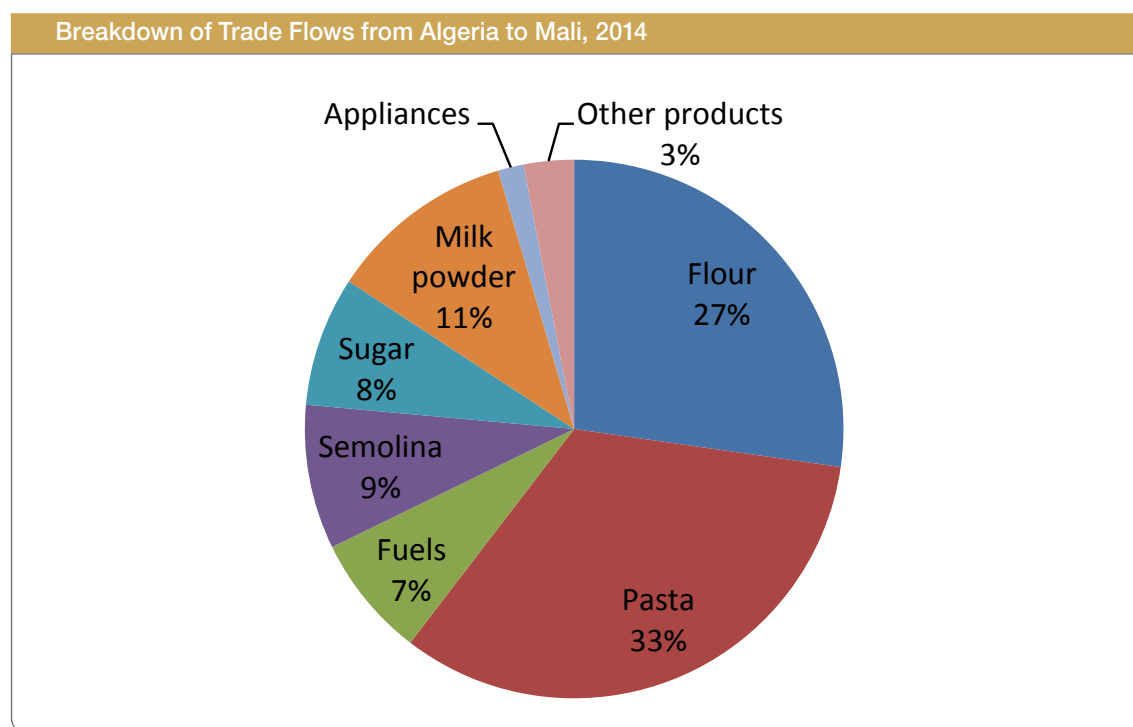
Informal trade is also one of the main activities in terms of employment, in the extreme north of the country. Economically, even without considering the Algerian subsidies on transport and goods. It is understandable that Kidal, and even Gao, gravitate toward Algeria because transit times are between seven and eight days to Algiers as opposed to at least 17 days to Dakar (Senegal) or via the southern road to Abidjan (Côte d'Ivoire) or Tema (Ghana). Moreover, the cost of shipping transport is much lower at ports in North Africa than those in West Africa.

Comparison of Distances and Average Transit Times from Kidal, Gao, and Bamako to Algiers, Dakar, Abidjan, and Tema

	Kidal	Gao	Bamako
Distance (km)			
Algiers (Algeria)	2,297	2,597	4,193
Dakar (Senegal)	2,950	2,650	1,400
Abidjan (Côte d'Ivoire)	2,400	2,050	1,150
Tema (Ghana)	2,250	1,900	2,000
Average transit times (days)			
Algiers (Algeria)	7	8	20
Dakar (Senegal)	18	17	13
Abidjan (Côte d'Ivoire)	23	22	19
Tema (Ghana)	24	23	22

Source: Comité de liaison de la route Transsaharienne (Liaison Committee for the Trans-Saharan Road 2009)
<http://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>

Almost all the products sold in northern Mali are those subsidized in Algeria: pasta products, flour, and semolina products, but also fuels. Despite the official closure of the Algerian border in January 2013, informal trade flows remain significant.⁸¹



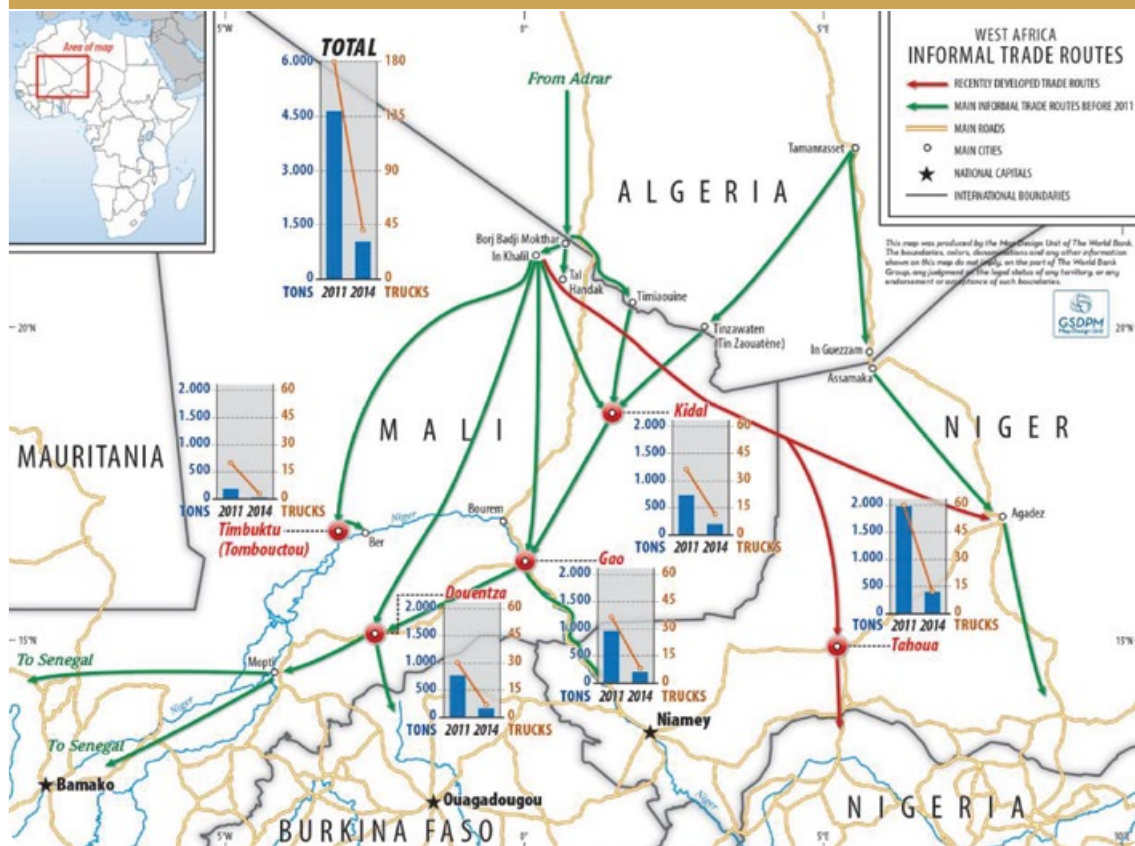
Source: <http://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>

The three main border crossing points between Algeria and Mali are Bordj Badji Mokhtar in Mali, which has been somewhat superseded since 2012 by Tinzawaten and Timiaouine in Algeria. In Bordj Badji Mokhtar, goods are kept in storage before being sent on small trucks or 4x4s to In Khalil, where they are reloaded into new trucks. Fuel is another matter. Smuggling is carried out by a limited number of operators because Algerian authorities are quite firm in fuel smuggling.

Since 2011, roads have changed, and some are temporarily being used more than others because of the security situation. One of the major changes is the replacement in Mali of the hub In Khalil in favor of Tal Handak. Tal Handak is called “mini In Khalil” because of the extremely challenging security situation that has prevailed in In Khalil since the beginning of 2013. The Gao region is supplied directly from Bordj Badji Mokhtar through In Khalil, without passing through the city of Kidal.

⁸¹ Algeria–Mali Trade: The Normality of Informality, Sami Bensassi, Anne Brockmeyer, Mathieu Pellerin, Gaël Raballand, Democracy and Economic Development, Economic Research Forum, 2015, <http://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>.

Map 1: Informal Trade Routes between Mali and Algeria and Truck Traffic for Selected Cities, 2011 and 2014



Source: <http://documents1.worldbank.org/curated/en/839641468186541299/pdf/101137-WP-P148610-PUBLIC-Box393259B.pdf>

Informal trade has positive and negative impacts on northern Mali. Despite its positive economic and social impacts, it strengthens the economic integration between northern Mali and Algeria and thus generates resentment of the government of Mali in Bamako. In addition, because of the corruptive effects of informal trade on institutions such as customs or the army, it undermines the effectiveness of the Malian state in the north.

Mali's economic dependence on Algeria creates an extreme vulnerability for northern Mali. The Malian state is thus in an awkward position because it is economically legitimate for the north to be largely rooted in Algeria, but that situation reinforces the weakness of the Malian state. Thus, a fully repressive policy is not possible. A laissez-faire policy is not an option as well because the trade margins are an estimated \$10–15 million at a minimum, even laying aside weapons or drug trafficking. But allowing smugglers to operate undermines the integrity of state institutions, be they be customs, the army, or even the political authorities.

Because of the economic and political importance of Algeria to northern Mali and the current issues of instability, it is important that Malian and Algerian authorities hold discussions on informal trade between the two countries. Furthermore, it is important to distinguish the different smuggling routes and potentially neglect the revenue loss aspect and better control the smuggling of illicit goods.

Border regulation in Algeria and the issue of subsidies in southern Algeria

The *wilayas* (provinces) in southern Algeria, including Tamanrasset have a double subsidy system: a system of compensation for transport costs that is applied exclusively to these provinces and a system of subsidizing the prices of widely consumed products that is applied to the entire Algerian territory. The compensation system for transport costs consists of reimbursement of the costs arising from the supply and distribution of general consumer goods at the level of the wilayas in the southern regions (Tamanrasset, Illizi, Adrar, Tindouf, Ouargla, Bechar, El Beidh, El Oued, Ghardaia, and Naama). This program is governed by the Executive Decree of July 10, 2007. Reimbursement covers both transport among wilayas and transport within wilayas. This scheme is intended to provide general consumer goods for people living in remote areas in southern Algeria.

The reimbursement system is calculated on the following basis: amount of compensation per operation = distance (km) × weight (tons) × DA 3 (Algerian dinars). The government decided at its meeting in June 2019 to expand the list of materials benefiting from the transportation costs compensation fund for the states of the South, to include vegetables of all kinds and fruits produced locally and even imported, in addition to lamb and beef meat. And white meat for poultry and turkey, to protect the purchasing power of citizens in the south.⁸² The fund to compensate the costs of transport to the states of the south supports the transportation of many food and non-food items to the citizens of the Greater South, such as wheat, flour, milk powder (for young and old), milk, coffee, tea, sugar, concentrated tomatoes, nutritional pastes, oils food, school supplies, livestock feed and building materials (cement, concrete, wood) in addition to gas and medicine.

The governorates concerned with the decision were Adrar (1412 km from the capital), Tamanrasset (1917 km from the capital), Basharr (1025 km from the capital), Illizi (1822 km from the capital), and Ouargla (784 km from the capital), the valley (641 km from the capital), Ghardaia (597 km from the capital), the ostrich (719 km from the capital), al-Bayadh (800 km from the capital) and Tindouf (1417 km from the capital). The fund's budget for 2018 amounted to 5.2 billion dinars (\$500 million), and 23 billion dinars (\$2.1 billion), for recent years from 2010 to 2018. In border localities, each identified operator is limited in the quantities of subsidized products that can be traded in these regions. But this scheme does not limit number of traders who are able to register for this activity, and thus it does not limit the threshold for allocations in border areas.

The directorate of trade gives the names of the traders, their tax identification numbers, and their authorized quantities per product to the authorities that issue, upon request, customs clearance. This process facilitates the control of movements of subsidized products and makes available data on the annual allocations in these regions. Semolina, flour, and pasta are the consumer products most subsidized, with more than 2,000 tons for Tinzawaten and In Guezzam. Both localities also receive 4,000 tons of cement. A review of the lists of traders authorized to supply border localities also reveals that some tribes control the food products and construction materials sectors. In Tinzawaten, one tribal group represents 7 out of the 42 operators authorized to supply this locality with construction materials (16% of this activity) and presents 6 out of the 67 operators authorized to supply food products (or nearly 8% of this activity). Some family members are also in the barter trade.

Border control on the Algerian side

The border between Algeria and Mali is 1,376 kilometers long. Surveillance of the southern Algerian border is difficult because the population density is very low, particularly in the far south. The conflict that has

⁸² Algeria seeks to put out the fire of high prices in the southern states (alaraby.co.uk).

prevailed in northern Mali since January 2012 has upset the trade balances between Algeria and Mali.

Implementation of Organization of African Unity (OAU) resolutions enabled the conclusion, without any major difficulty, of the agreement on Algeria's demarcation border with Niger on January 5, 1983, and with Mali on May 8, 1983. The Algerian-Malian joint commission on security is an administrative and executive entity created by Algeria and Mali to oversee the different aspects of cooperation in terms of security in the border regions, but it convenes only once every three years and therefore is virtually nonexistent.

Within the framework of its modernization program, Algerian customs have undertaken extensive recruitment of customs officers since 2012 in order to conduct surveillance in the southern regions. This system was reinforced by opening land border posts for control of people and goods. In 2014, twenty-six customs stations are spread across the borders (8 posts at the border in the east, 14 in the south, and 4 in the west), and there are posts that exclusively oversee surveillance of border areas.

These measures are legally supported by the adoption of a specific law reinforcing sanctions against all forms of smuggling. These sanctions are warranted against serious forms of smuggling (weapons, drugs, etc.), but they seem disproportionate for the traffic of consumer products intended to supply isolated localities in the Sahara.

Regulation by barter trade and exchange controls

To exercise barter trade, a trader must, under the order of 1994, seek inclusion on Algeria's trade register as a wholesaler and possess storage infrastructure and a means of transporting goods, owned, or rented a formality not required in the regulation of 1991. This measure has created a monopoly of Algerian traders in the wholesale cross-border trade, thereby forcing Malians and Nigeriens to go through these Algerian intermediaries (Scheele 2011).

Several trade agreements have been signed between Algeria and Mali:

- Order No, 75-71 of November 12, 1975, on the ratification of the agreement on road transport of goods, payment, between the People's Democratic Republic of Algeria and the Republic of Mali, signed in Bamako on June 30, 1975 (OJ No, 99 of December 12, 1975, p, 1056).
- Decree No, 83-341 of May 21, 1983, on the ratification of trade and tariff agreement between the government of the People's Democratic Republic of Algeria and the government of the Republic of Mali, signed in Mali on December 4, 1981 (OJ No, 21 of May 24, 1983, p, 977).
- Presidential Decree No, 01-80 of March 29, 2001, on ratification of trade and tariff agreement between the government of the People's Democratic Republic of Algeria and the government of the Republic of Mali, signed in Bamako on July 11, 1996 (OJ No, 20 of April 8, 2001, p, 3).

ANNEX 4

PROPOSED

**MEMORANDUM OF UNDERSTANDING (MU)
BETWEEN TSR ROAD CORRIDOR COUNTRIES
FOR ESTABLISHING A COOPERATION FRAMEWORK
AND A CORRIDOR MANAGEMENT MECHANISM**

MEMORANDUM OF UNDERSTANDING (MoU) among members of the TSR road corridor countries (Algeria, Chad, Mali, Niger, Nigeria, Tunisia) on establishing a cooperation framework and a corridor management mechanism

Preamble

Recognizing the crucial importance of road transport in further enhancing the sustainability of transport networks for realization of Sustainable Development Goals (SDGs) in the respective countries

Recognizing the vital role of road transport in addressing the specific needs of landlocked and transit developing countries as provided in the Almaty Program of Action (2003) and the Vienna Program of Action for Landlocked Developing Countries for the Decade 2014-2024

Recognizing the importance of enhancing performance of the TSR Road Corridor (herein after referred to as the TSR Corridor) to support the implementation of the African Continental Free Trade Area (AfCFTA)

Noting the opportunities for enhancing economic growth, trade and transport as well as improving transport services among the six countries consequent to commercialize road operations along the TSR Corridor and beyond

Reaffirming the importance of enhancing the linkages of the TSR Corridor to other adjacent corridors, improving its inter-modal linkages and the necessity of having a broad-based platform for coordinating activities of the stakeholders to attract freight along the TSR Corridor

Stressing the need for a formal arrangement for deepening collaboration among stakeholders, setting priorities, and providing continuity and regular monitoring for successful commercial operations along the TSR Corridor

Hereby agree:

The countries hereinafter referred to as the “Parties to the Memorandum” or “the Parties”

Goals of the MoU

- The Parties affirm their commitment to work together to commercialize the TSR Corridor by further enhancing its competitiveness through investing in and modernizing the infrastructure, eliminating physical and non-physical barriers, improving technical, legal and operational interoperability, including harmonizing operational rules such as customs and border controls and other formalities.
- The Parties also commit to work collaboratively in attracting more freight to the TSR Corridor inter alia by strengthening its linkages with other adjacent or relevant corridors and exploring opportunities for promoting the TSR Corridor in other subregions.
- The MoU envisages close coordination among the Parties on setting priorities, including on harmonizing, wherever feasible, technical standards, exchange of information, operational practices, and legal, regulatory and/or administrative provisions influencing the flow of freight along the TSR Corridor.

Establishment of a Cooperation Framework

For enforcing their collaboration, the Parties agree to establish a Cooperation Framework for the TSR Corridor which will involve the main stakeholders involved in trade and transport facilitation in the TSR Corridor countries and aiming at commercializing the corridor.

- This is a strategic cooperation framework for trade and transit transport facilitation and commercialization of the TSR Corridor.
- The Cooperation Framework shall outline the long-term common targets/strategy for TSR Corridor countries to increase effectiveness of facilitation measures and coordination among these measures, and to avoid inconsistency in facilitation efforts and conflict between different, already existing facilitation agreements (or measures).
- The Cooperation Framework shall constitute an effective regime and give the long-term common targets for essential and critical issues for transit transport facilitation, particularly road transport permits and traffic rights, visas for professional drivers and crew, temporary importation of road vehicles, road safety, insurance of vehicles, vehicle weights and dimensions, vehicle registration and inspection certificates.
- The Cooperation Framework shall provide a focus for collaborative efforts, cooperation and exchange of experiences among the TSR Corridor member countries, particularly on: (i) building an effective legal regime especially for accession to selected international facilitation conventions; (ii) sub-regional and bilateral agreements; (iii) wider applications of new technologies (including green technologies); (iv) development of professional training; (v) establishment/strengthening of national facilitation coordination mechanisms; (vi) promotion of joint control at border crossings; (vii) promotion of economic zones at border crossings, dry ports and logistics centers; (viii) further application of facilitation tools.
- The Cooperation Framework shall encourage the landlocked and transit countries to join relevant international conventions, particularly the TIR Convention, the Harmonization Convention, and the Revised Kyoto Convention, given their potential benefits, as well as agreements with a view to promote the harmonization, simplification and standardization of rules, formalities and documentation transport. It is a platform for effective information exchange, including information protection issues and limitations on the use of information, and provides for harmonization of information requirements in line with international standards.

Establishment of a Corridor Management Mechanism

For the realization of the above goals and to drive the objectives of the MoU and the Cooperation Framework, the Parties agree to establish a Corridor Management Mechanism for the TSR Corridor (herein after referred to as CMM-TSR).

- The institutional setup of the CMM-TSR shall be a two-tier arrangement comprising an Oversight Committee (OC) and a Permanent Executive Secretariat (PES).
- The OC shall include high level representatives of ministries or national agencies responsible for transport, public works, trade, and customs from member countries of the TSR Corridor. Representatives of port authorities, transport regulation and road safety agencies, as well as private sector (trucking industry, logistics operators, freight forwarders) could be added if governments so agree.
- The OC could be chaired by a minister from a member country of the TSR corridor (for example: Minister of Transport or Minister of Public Works) or his designated representative in rotation starting with a mutually agreed country, or as may be agreed by the TSR Corridor countries.
- Building on the existing CLRT of the TSR road corridor, the CLRT organic statutes shall be amended to include the OC and the PES with their prerogatives, roles, responsibilities, and composition as described herein and detailed in the separate documents of the Cooperation Framework and Corridor Management Mechanism. The CLRT shall be replaced by the PES (Le Secrétariat Permanent du Corridor Economique Transsaharien). In addition, the countries may establish national trade facilitation committees.
- The PES shall be the main coordinating and managing and technical body of the CMM-TSR. It will support the OC. The PES shall at a minimum have the following positions, agreed by the TSR countries:

(i) a Secretary General; (ii) a trade and transport facilitation expert; (iii) an administrative assistant. The Secretary General may, with consultation with the OC, appoint such persons as members of the secretariat as may be required for the proper discharge of the secretariat's functions. Any member country may, to support the work of the secretariat, second a person to serve as a full-time or part-time in the secretariat, subject to such conditions as the Secretary General may determine in consultation with the OC. The TSR Corridor member countries are encouraged to make in-kind contributions to the initial setup of the Secretariat, such as equipment and travel costs.

- The role of the OC shall be limited to the overall oversight and helping address and solve any issues and policies that may hamper trade, logistics, transit, and transport facilitation. The OC may designate a smaller core-group and on ad-hoc basis to act on its behalf. The committee can also establish such working groups as may be required to address specific issues. The oversight committee shall meet once a year, setting priorities for the Corridor and finalize annual action plan delineating activities to be undertaken, with rotating turn in each of the member countries. The PES will organize the meetings of the OC.
- The OC may invite representatives from other organizations/countries as deemed necessary to realize the goals of the Corridor.
- The OC and the PES may setup one or more specialized advisory groups as required to implement the annual action plan for the Corridor.
- All decisions in the CMC-TSR shall be taken on basis of consensus.
- Funding for the CMM-TSR shall include membership (countries, autonomous agencies, etc.) fees, contributions by governments, traffic-based usage fees (if feasible), and donor support (through trade and transport facilitation projects and/or programs).

Other provisions

- The Parties consider that this MoU is without prejudice to the competence of the ministries in charge of their respective road and other related infrastructure regarding planning and funding of the infrastructure or on the organization of the road transport services in their respective territory.
- All cooperation activities in the context of this MoU are based on the voluntary commitment of the Parties and other stakeholders involved.
- This MoU shall remain in force unless terminated in writing by any of the Parties.

Signed at [location] on the [date] in [number] originals in [language(s)], all texts being equally authentic:

For Algeria

.....[signature].....

For Chad

.....[signature].....

For Mali

.....[signature].....

For Niger

.....[signature].....

For Nigeria

.....[signature].....

For Tunisia

.....[signature].....

ANNEX 5

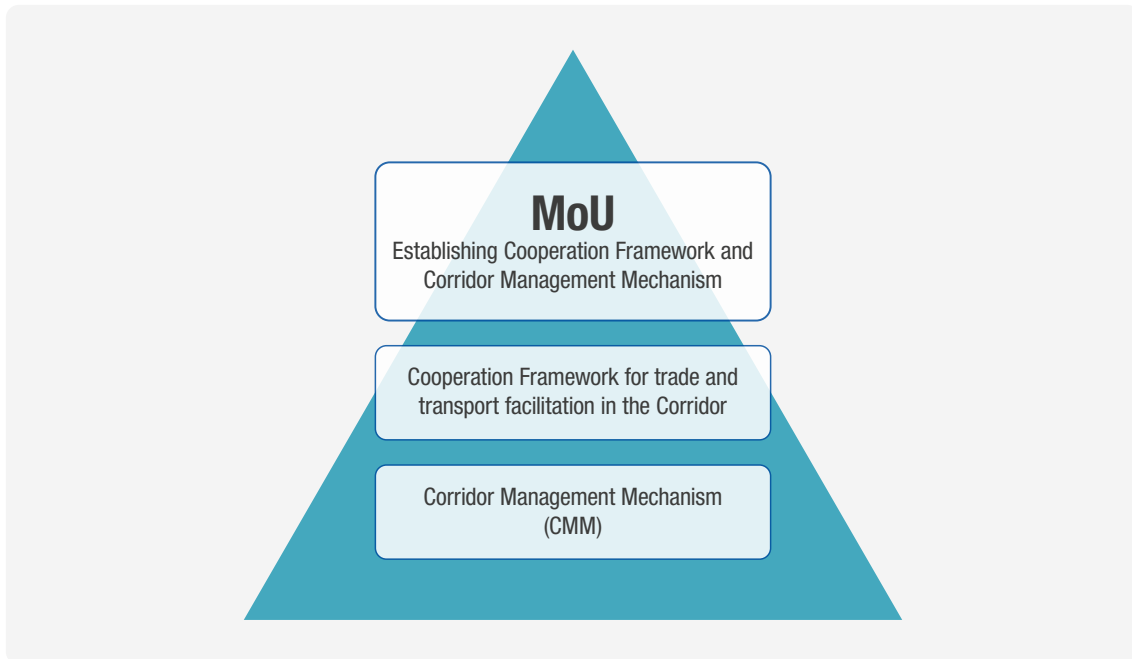
PROPOSED

**COOPERATION FRAMEWORK AMONG THE TSR ROAD CORRIDOR
COUNTRIES FOR TRADE AND TRANSPORT FACILITATION AND
COMMERCIALIZATION OF THE CORRIDOR**

INTRODUCTION

The proposal for legal and institutional arrangements for the management of the TSR Corridor is part of the study for the promotion and commercialization of the Trans-Saharan Road Corridor (TSR), and its evolution towards an economic corridor. These arrangements are summarized in the following figure.

LEGAL AND INSTITUTIONAL ARRANGEMENTS



It is proposed to have a three-component arrangement: (i) a MoU between the TSR corridor countries establishing a Cooperation Framework and a Corridor Management Mechanism; (ii) a Cooperation Framework among the TSR corridor countries for trade and transport facilitation; (iii) a formal institutional Corridor Management Mechanism. These three components once adopted and enforced by the TSR corridor countries would support the evolution towards an economic corridor and lay the ground for the ultimate objective of regional integration. The TSR corridor countries recognize the crucial importance of efficient, reliable, and safe transport infrastructure and services to regional integration and the sustainable economic and social development of the countries.

The present Annex summarizes the **Cooperation Framework** for trade and transport facilitation among the TSR Corridor countries. It describes briefly what a regional strategic cooperation framework can do and gives the main provisions to be part of this intergovernmental cooperation framework. The complete legal cooperation framework, or intergovernmental agreement, could be developed and formalized by the TSR Corridor countries under a regional project supported technically and financially by international partners, such as IsDB and UNCTAD.

The other two components (the MoU and the Corridor Management Mechanism) of the legal and institutional arrangements are summarized in Annexes 4 and 6, respectively.

The detailed analytical work and review of international experience on the same subject that led to the proposed legal and institutional arrangements for the TSR Corridor management is given in the full study report, which details also other activities and steps to support the evolution of the TSR Corridor towards an economic corridor.

PROPOSED COOPERATION FRAMEWORK (INTERGOVERNMENTAL AGREEMENT)

Legal strategic framework for trade and transit transport facilitation of the TSR corridor

The review of experience and existing corridor management institutions showed that a variety of legal instruments are used to formalize a corridor scheme. These are the instruments that define the objectives of the scheme, the implementing authorities, the institutional arrangements, roles and responsibilities of the different parties and the means to assure financial sustainability of the scheme.

Experience shows also that the corridor management arrangements should be designed to advocate for modernization of border agencies, particularly customs administrations. In addition to transport facilitation measures, focus could be on solutions to problems that negatively impact corridor efficiency and performance, such as institutional reforms and simplification of procedures, while promoting improvement in training and investment to upgrade information technology and border crossing facilities.

What the regional strategic framework can do and focus on

The strategic cooperation framework would outline the long-term targets/strategy for member countries and their development partners, particularly to increase effectiveness of facilitation measures and coordination among these measures, and to avoid inconsistency in facilitation efforts and conflict between different existing facilitation agreements (or measures).

The framework would constitute an effective legal regime and give the long-term common targets for essential and critical issues for transit transport facilitation, particularly:

- Road transport permits and traffic rights
- Visas for professional drivers and crew
- Temporary importation of road vehicles
- Road safety
- Insurance of vehicles
- Vehicle weights and dimensions
- Vehicle registration and inspection certificates

To provide a focus for collaborative efforts, cooperation and exchange of experiences among the TSR corridor member countries, some of the key modalities suggested are: (i) building an effective legal regime especially for accession to selected international facilitation conventions; (ii) sub-regional and bilateral agreements; (iii) wider applications of new technologies (including green technologies); (iv) development of professional training; (v) establishment/strengthening of national facilitation coordination mechanisms; (vi) promotion of joint control at border crossings; (vii) promotion of economic zones at border crossings, dry ports and logistics centers; (viii) further application of facilitation tools.

In the African context, trade and transport corridors are a primary area of focus in infrastructure development and trade facilitation strategies to be pursued across Africa at both continental and sub-regional levels. African Union programs and the regional economic communities all place priority on enhancing interconnectivity and facilitating trade by focusing on transport corridors as catalysts of integration and spatial development on the continent.

The VPoA stresses the importance of corridors in promoting efficient and cost-effective access to and from the sea. It calls for the development of enhanced transport infrastructure and increased trade facilitation and specifically calls for reducing travel time along corridors.

In the case of the TSR corridor countries, the establishment of efficient transit transport system through cross-border corridor arrangement schemes can provide genuine partnerships between landlocked and transit countries based on mutual benefits deriving from the specific actions that the countries major stakeholders may agree to undertake in the VPoA.

KEY PROVISIONS TO BE PART OF THE COOPERATION FRAMEWORK (INTERGOVERNMENTAL AGREEMENT)

Review of legal instruments on transport and trade facilitation in Sub-Saharan Africa showed that the choice of a legal instrument is fundamental to the effectiveness of a corridor management scheme. It is also helpful to determine the cost associated with the establishment of corridor management arrangements. The choice of legal instrument will be influenced by key partners and depends on the desired level of interaction between public and private sector stakeholders.

The proposed main elements and key provisions for the intergovernmental cooperation framework among TSR corridor member countries are based on different examples of corridor constitution. International best practice recommends that the legal instruments to be adopted for the corridors should be harmonized with the legal regimes of the corridor countries. Most importantly, the legal document must be ratified by the responsible public bodies of corridor member states. Likewise, for new schemes, the choice of legal instrument should be preceded by stakeholders' consultation, to orient the type of instrument to be chosen.

The table below gives what could be covered under the cooperation framework for the TSR economic corridor scheme. This could be finalized and implemented under a TSR regional economic corridor development project supported by IsDB and UNCTAD. Enhancing cooperation on legal framework for transit at bilateral, regional, and global levels strengthens how the landlocked and transit countries of the corridor should cooperate and coordinate on fundamental transit policies, laws, and regulations and towards enhancing freedom of transit.

The framework encourages the landlocked and transit countries to join relevant international conventions, in particular the TIR Convention, the Harmonization Convention, and the Revised Kyoto Convention given their potential benefits, as well as agreements with a view to promoting the harmonization, simplification and standardization of rules, formalities and documentation transport. It is a platform for effective information exchange, including information protection issues and limitations on the use of information and provides for harmonization of information requirements in line with international standards.

PROPOSED KEY ASPECTS TO BE COVERED UNDER THE COOPERATION FRAMEWORK FOR THE TSR CORRIDOR

Preamble

Sets out the context and guiding principles for the corridor management scheme

Definitions

Definition of key terms as used in the document

Establishment of policy, executive and operational organs, and their legal powers

Formal establishment of the Oversight Committee (policy organ) and the Secretariat and their legal mandate

Scope

Areas addressed by the legal instruments

Objectives

The objectives of the instrument.

Membership and member responsibilities

Identification of the competent authorities for purposes of implementing the instrument.

Activities and specific issues

The definition of the key issues and instruments to be used in implementing the legal instrument such as:

Transit facilities and procedures

Customs procedures, border post facilities, management, and operating hours

Road infrastructure provision and maintenance

Other transport infrastructure, provision, and maintenance

Road transport policy

Road traffic and road traffic law enforcement, axle load controls, vehicle dimensions

Technical certification, insurance

Transportation of hazardous materials

Road safety

Environmental sustainability policies, including resilience to climate change, adaptation strategies

Development opportunities along the transport corridor, trade promotion, commercialization

Monitoring and evaluation

Institutional issues Definition of the following:

Stakeholders

Relationships

Powers and responsibilities

Corridor management organs

Rules of procedure

Reporting lines

Financing mechanism outline for corridor institutions

Final provisions definition of some fundamental provisions to bring the instrument into effect:

Entry into force

Amendments

Signatures

As an important benefit, the framework agreement will be the occasion for strategies and experience sharing on promoting customs cooperation. Customs administrations would modernize their customs transit regimes, based on the WCO Transit Guidelines to facilitate transit movement and support economic development of the landlocked countries. They would enhance cooperation with other border regulatory agencies to effectively implement the WTO Trade Facilitation Agreement and would cooperate with each other to ensure smooth movement of transit goods, including data exchange of transit goods, guarantees and Customs seals. All six TSR corridor countries have signed and ratified the AfCFTA, which should also accelerate harmonization of transit agreements, transport regulatory requirements, standards, systems and customs procedures guided by the objectives of the AfCFTA.

ANNEX 6

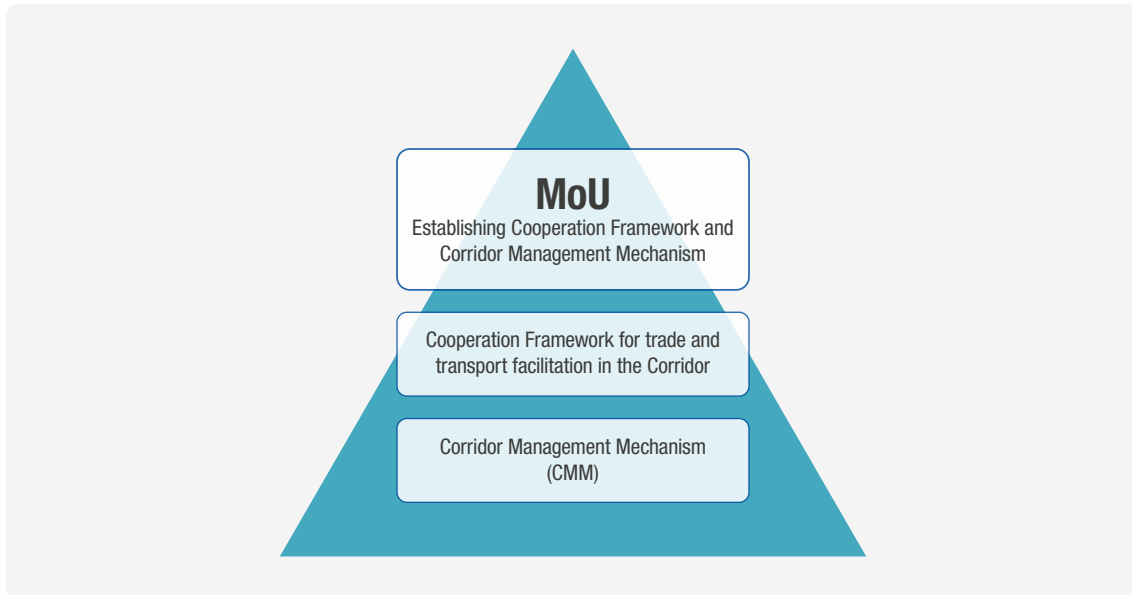
PROPOSED

CORRIDOR MANAGEMENT MECHANISM (CMM)

INTRODUCTION

The proposal for legal and institutional arrangements for the management of the TSR corridor is summarized in the following figure.

LEGAL AND INSTITUTIONAL ARRANGEMENTS



It is proposed to have a three-component arrangement: (i) a MoU between the TSR corridor countries establishing a Cooperation Framework and a Corridor Management Mechanism; (ii) a Cooperation Framework among the TSR corridor countries for trade and transport facilitation; (iii) a formal institutional Corridor Management Mechanism. These three components once adopted and enforced by the TSR corridor countries would support the evolution towards an economic corridor and lay the ground for the ultimate objective of regional integration. The TSR corridor countries recognize the crucial importance of efficient, reliable, and safe transport infrastructure and services to regional integration and the sustainable economic and social development of the countries.

The present Annex summarizes the **Corridor Management Mechanism (CMM)** to be setup and formalized by the TSR Corridor countries. It briefly describes the suggested governance model, the mode of operation of the proposed corridor management scheme, the functions and responsibilities of the constituting elements, the financial sustainability of the TSR corridor management structure and its costs and the expected performance indicators to be monitored for the corridor. The complete legal corridor management mechanism, as agreed by the governments, could be developed and formalized by the TSR Corridor countries under a regional project supported technically and financially by international partners, such as IsDB and UNCTAD.

The other two components (MoU and Cooperation Framework) of the legal and institutional arrangements are summarized in Annex 4 and 5, respectively.

The detailed analytical work and international experience that led to the proposed legal and institutional arrangements for the TSR Corridor management is given in the full study report, which details also other activities and steps to support the evolution of the TSR Corridor towards an economic corridor.

PROPOSED MODEL OF MANAGEMENT MECHANISM FOR THE TSR CORRIDOR

Governance model suggested for TSR corridor management

Applying the criteria and guiding principles, as defined in the main report of the study, on how and what type of model to select for the institutional arrangements for the management of the TSR corridor and using different cases and best practices from the international experience, allowed to suggest the arrangement summarized in the table below.

Selecting an institutional model for the TSR corridor management	
Objectives of the corridor development	Provide for efficient movement of trade with broader economic goals that the corridor is meant to achieve. Promote trade and/or economic growth. Lay the ground for future regional economic integration
Activities of the corridor management system	Leadership. Planning and support in seeking financing (from development partners), legislation, regulation, operation, monitoring, and promotion of the corridor. While the scheme is responsible for coordination and promotion, implementing specific actions will be responsibility of other government agencies
Organization of a corridor management system	Primary concern is operational, then a more permanent organizational structure would be required. At the same time, it would operate independently of governments concerned
Funding of the corridor management scheme	Likely funding from membership fees (mainly governments), contributions by governments, traffic-based usage fees, and possibly donor support (initially)
Political will and commitment of countries, and readiness of a corridor management scheme	There is common vision of the TSR countries for implementing a joint economic corridor. They are committed to implementing the needed trade, transport and transit regime and facilitation measures. They are committed to achieving the common goal and demonstrate willingness to move ahead with a joint strategy towards future regional economic integration. The countries are likely to prefer a management scheme that would easily become operational. Readiness is key.
Suggested governance model for TSR corridor management Permanent Executive Secretariat of the TSR economic corridor (or authority/agency-Le Secrétariat permanent du corridor économique transsaharien), with an Oversight government Committee/council (transport/public works, customs, trade, ports, transport regulation and road safety, private sector). In addition, the countries may establish national trade facilitation committees	

The criteria and guiding principles (development objectives, activities, organization, funding, political will and commitment of countries, and readiness) have been complemented by some of the lessons learned from experience from existing arrangements. These lessons include:

- Corridor groups can solve problems; operational procedures should encourage this objective and retain flexibility necessary to be responsive
- Working groups (advisory groups) can be formed on an ad hoc basis to address specific issues and disbanded once the objective met
- Corridor issues by their nature are often solved by interactions between public entities; participatory processes should be fostered
- Ownership and power-sharing should be encouraged by the scheme design and operating procedures

- The organizational scheme should ensure public-private interaction when needed at all levels
- Most existing arrangements in Africa region have been established with donor funding and their financial sustainability has remained a key challenge
- Tailoring the corridor management arrangement to the corridor context is needed if ownership is to be secured.

Mode of operation of the TSR corridor management

The institutional setup suggested for the management of the TSR corridor is a two-tier arrangement comprising an Oversight Committee (or Steering Committee) and a Permanent Executive Secretariat. The oversight committee would include high level representatives of ministries or national agencies responsible for transport, public works, trade, and customs. Representatives of port authorities, transport regulation and road safety agencies, as well as private sector (trucking industry, logistics operators, freight forwarders) could be added as if governments so agree. The role of the Oversight Committee would be limited to the overall oversight and helping solve any problems that may hamper trade, logistics, transit, and transport facilitation. The Oversight Committee may elect a smaller group to act on its behalf. The committee can also agree with the Permanent Secretariat to establish such working groups as may be required to address specific issues. The oversight committee would meet once a year, in member countries on a rotating basis. The corridor executive secretariat would organize the meetings of the committee.

The Oversight Committee would be supported by a Permanent Executive Secretariat—the main coordinating, managing and technical body of the corridor management mechanism. The Secretariat shall at a minimum have the following positions: (i) a Secretary General; (ii) a transport and trade facilitation expert; (iii) an administrative assistant. The Secretary General may, with consultation with the Oversight Committee, appoint such persons as members of the secretariat as may be required for the proper discharge of the secretariat's functions. Any member country may, to support the work of the secretariat, second a person to serve as a full- or part-time in the secretariat, subject to such conditions as the Secretary General may determine in consultation with the oversight committee. Members are encouraged to make in-kind contributions to the initial setup of the Permanent Secretariat, such as equipment and travel costs.

The scheme for discharging responsibilities of the proposed corridor management mechanism include, and may not be limited to: (i) monitoring performance of transport operation along the corridor, and the concerned national, regional and global supply chains; (ii) disseminating results of monitoring through conferences, publications, and media at all levels; (iii) sensitizing corridor member state authorities; (iv) supporting common/standard procedures and regulations development and implementation; (v) supporting capacity building initiatives of key institutions engaged in trade and transport operations (Customs, clearing and forwarding agents, insurance companies, transport infrastructure management agencies, transport, and logistics operators, etc.); (vi) networking with international, regional, and local partners concerned with trade and transport corridor management, and exchange of experience.

The overarching function of the proposed TSR corridor management mechanism would be to lead the preparation and support implementation of measures to:

- Ascertain smooth and safe passage of cargo along the corridor
- Reduce transportation costs along the corridor
- Simplify cargo clearance procedures and customs documentation
- Harmonize transport and transit policies
- Enhance co-operation among the member states
- Facilitate trade among member states and between the member states and the rest of the world

- Contribute to the sustainable development of the member states and to poverty reduction
- Promote the improvement of road transport infrastructure
- Encourage the major transport service providers, including ports, truckers, and others, to provide cost-effective services
- Monitor the performance of the corridor and assess how regional value chain is being supported, especially during the Covid-19 crisis, and the anticipated shift in global trade and restructuring of global value chains.

Performance indicators of the corridor

The main key performance indicators of the TSR trade, transport, and transit corridor, that the Executive Permanent Secretariat would follow up and report on to the Oversight Committee, include:

- Traffic and trade volumes and values
- Transport costs
- Turn-around time of trucks and wagons
- Ports dwell time
- Border posts (and dry ports) transit times
- Variation of all the above times

Responsibilities of the corridor's Executive Secretariat

The key functions and responsibilities of the TSR trade, transport and transit facilitation corridor Executive Secretariat would include:

- Organize oversight committee's meetings and stakeholder workshops, finalize meetings minutes and reports
- Supervise and provide technical advice to the advisory/working groups
- Liaise with and participate in development of policies, regulations, standards, safety, risk management, harmonization mechanisms, ICT deployment, transport, and transit facilitation in the corridor
- Establish and manage corridor monitoring/observatory activities and monitoring and evaluation mechanism, exchange international experiences
- Develop and manage corridor performance related database and disseminate monitoring outcomes
- Respond to requests from private sector, ministries responsible for transport, trade and industry, chambers of commerce and other organizations involved in industrial development and investment promotion regarding the facilities, cost, delivery time to various markets, security and reliability of the route as needed for them to effectively market the corridor and spur economic development based in part on the quality of the transport system
- Assist transport and logistics service providers to develop service packages offering competitive rates and services and an integrated tariff structure to customers. Share technical and operational knowledge amongst service providers and harmonize service quality
- Promote and market the corridor through dissemination of information, publication of a newsletter and a website, participation in exhibitions and trade fairs and by undertaking marketing visits
- Undertake or cause the undertaking of research on own initiative or as directed by the oversight committee

- Appoint and manage consultants when needed
- Prepare recommendations of annual membership dues and any other sources of funding, and assist in fundraising
- Prepare work plans, annual budget and progress reports and submit to the oversight committee
- Undertake administrative and finance management functions and other activities, as instructed by the oversight committee
- Establish productive working relationships with other regional corridors and institutions, and international organizations.

Establishing the corridor management structure including the executive secretariat

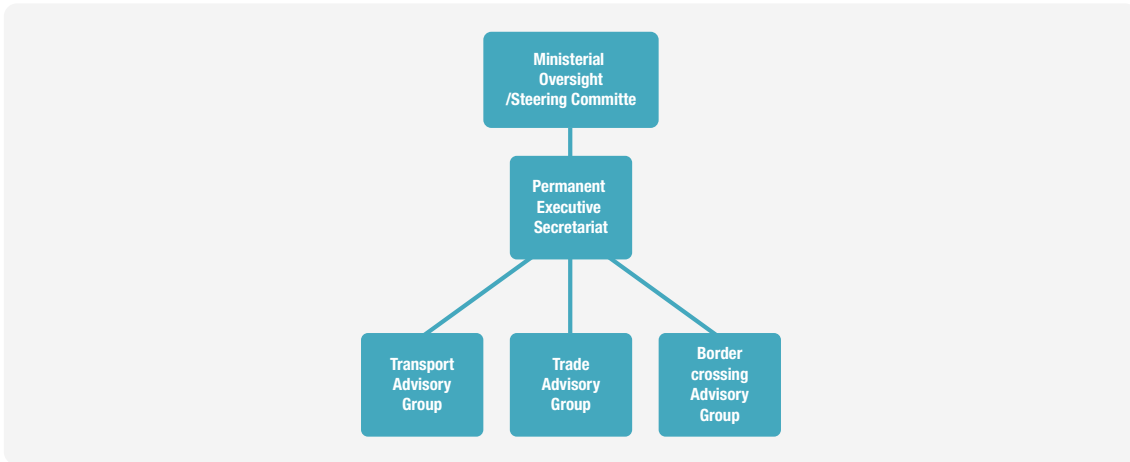
To expedite establishing the proposed management mechanism for the TSR trade, transport, and transit corridor, and for the sake of operational efficiency, it is suggested to build on the existing CLRT. The existing CLRT will therefore be kept but strengthened by include more roles and sectors.

The organic statutes of the CLRT would be amended to include the Oversight Committee and the Executive Permanent Secretariat with their prerogatives, roles, responsibilities, and composition as described above. It is suggested to give the CLRT a new name that would relate to the economic corridor vision, the wider approach of trade, logistics, transport, and transit facilitation corridor as well as the function of corridor coordination and management.

The new suggested name of the structure could be “Trans-Saharan Economic Corridor Coordination Committee” (Comité de Liaison et Coordination du Corridor Economique Transsaharien”, CLCCET). The existing legal statutes of the CLRT would need to be revised and amended. These have not been ratified by the countries concerned; they were simply approved by the representative of each of the member countries on the Committee. This would be a good occasion and opportunity to revise the statutes, amend and have them officially ratified by the TSR corridor member countries.

It would also be the occasion to address the funding (on a sustainable basis) of the corridor management scheme. The existing CLRT secretariat, which would become the Executive Permanent Secretariat, would also need beefing up of composition, staffing, competencies, and equipment, supported financially on a sustainable basis. The proposed corridor management structure is summarized in the figure below.

CORRIDOR MANAGEMENT MECHANISM (CMM)*



*Amend existing CLRT organic statutes⁸³ to setup the CMM



Funding of the TSR corridor management structure and its costs

The proposed corridor structure (especially the Permanent Secretariat and its activities) needs reliable sources of income to be able to finance coordination functions, monitoring and related activities as described above. The activities will likely be reflected in action plans prepared by the governments with contribution of the TSR management structure. The plans generally aim at enhancing the performance of all players in the logistical chain. Implementation of the action plans rests with the governments or the business community (shippers, transporters, clearing agencies, port authority, etc.) should they see the benefits of making contribution.

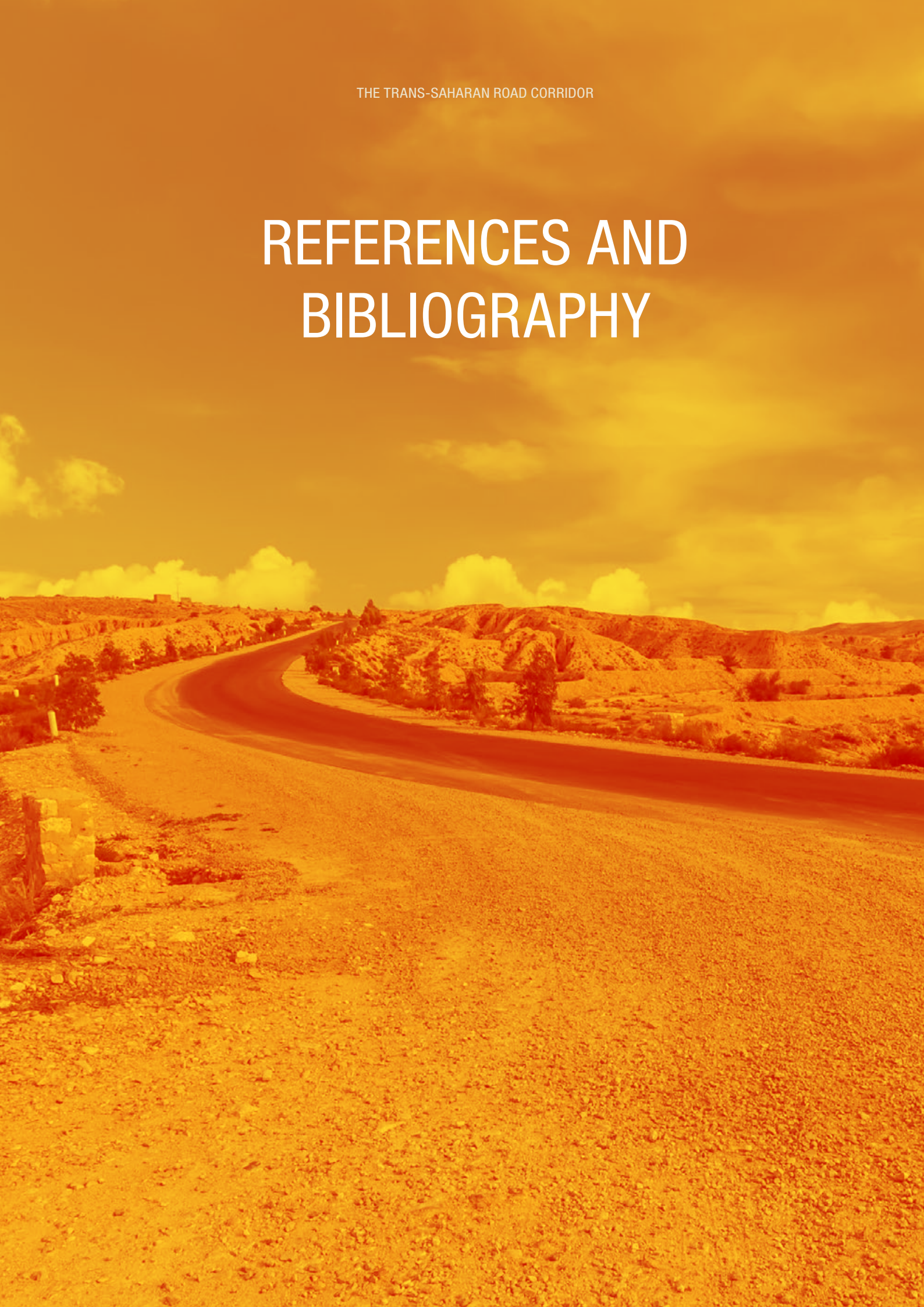
Two critical aspects should be properly addressed: the overall sustainability of the corridor management scheme, and the financial sustainability, without which the scheme collapses. Any corridor management requires stable sources of funding to achieve its goals. These aspects would be laid out in the legal instrument defining the strategic cooperation framework and statutes of the corridor management structure.

Typically, the main costs associated with establishing corridor management structure would be the secretariat office accommodation, salaries and benefits of secretariat staff; oversight committee and stakeholder coordination meetings; information dissemination; corridor performance monitoring; and studies and technical proposals to enhance corridor performance. Funding arrangements could initially include membership (countries, autonomous agencies, etc.) fees, contributions by governments, traffic-based usage fees (if feasible initially), and donor support (through trade and transport facilitation projects and/or programs). Experience shows that in the first instance membership contributions and/or donor funding are necessary to establish and support a corridor management structure.

⁸³ Available at: <http://www.clrtafrique.com/index.php>.

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