

BOARD APPROVAL
Lapse-of-time Procedure

13 January 2020

FOR INFORMATION

MEMORANDUM

TO : THE BOARD OF DIRECTORS

FROM : Vincent O. NMEHIELLE
Secretary General

SUBJECT: MULTINATIONAL - FEASIBILITY STUDY FOR THE PROPOSED STANDARD GAUGE RAILWAY (SGR) CONNECTING ETHIOPIA AND SUDAN*

ADF GRANT OF UA 863 000

The Grant **Proposal** and the draft **Resolution** related to the above-mentioned project, were submitted for **your consideration on a Lapse-of-time Basis** on 16 December 2019.

The Secretariat General has recorded the provisional reservation of the US Chair by the approval deadline of 13 January 2020.

The Proposal is considered as **approved** and the Resolution **adopted**.

Attach:

Cc: The President

***Questions on this document should be referred to:**

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AFRICAN DEVELOPMENT FUND



FEASIBILITY STUDY FOR THE PROPOSED STANDARD GAUGE RAILWAY (SGR) CONNECTING ETHIOPIA AND SUDAN

MULTINATIONAL: ETHIOPIA AND SUDAN

P-Z1-DC0-027

MEMORANDUM OF THE STUDY

Date: October 2019

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AFRICAN DEVELOPMENT FUND



MULTINATIONAL

FEASIBILITY STUDY FOR THE PROPOSED STANDARD GAUGE RAILWAY (SGR) CONNECTING ETHIOPIA AND SUDAN

RDGE/PICU/COET/COSD/PGCL DEPARTMENTS

January 2020

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Currency Equivalents

As of July 2019

1 Unit of Account	=	ETB 40.25040
1 Unit of Account	=	USD 1.39021
1 Unit of Account	=	SDP 62.7158
1 United States Dollar	=	ETB 27.95735
1 United States Dollar	=	DJF 176.91959

Fiscal Year

8 July – 7 July for Ethiopia
1 January - 31 December for Sudan

Weights and Measures

1 metric tonne	=	2204 pounds (lbs)
1 kilogramme (kg)	=	2.200 lbs
1 metre (m)	=	3.28 feet (ft)
1 millimetre (mm)	=	0.03937 inch (")
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

Acronyms and Abbreviations

AfDB	African Development Bank
ADF	African Development Fund
DFI	Development Finance Institution
DFID	UK Department for International Development
EIA	Environmental Impact Assessment
ERC	Ethiopia Railways Cooperation
ESIA	Environmental and Social Impact Assessment
ExI	Expressions of Interest
EU	European Union
GoE	Government of the Federal Democratic Republic of Ethiopia
GoS	Government of Sudan
OCB	Open Competitive Bidding
IPPF	Infrastructure Project Preparation Facility
NEPAD	New Partnership for Africa's Development
PIDA	Programme for Infrastructure Development in Africa
PIM	Project Information Memorandum
PPP	Public Private Partnership
REC	Regional Economic Community
SGR	Standard Gauge Railway
SRC	Sudan Railways Corporation
TBC	To be confirmed
TBD	To be determined
ToR	Terms of Reference
USD	United States Dollars

Grant Information

Client 's information

RECIPIENTS :

- FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

EXECUTING AGENCY:

- ETHIOPIAN RAILWAYS CORPORATION

Financing plan

Source	Amount (USD)	Equivalent Amount (UA)	Instrument
ADF / PBA : ETHIOPIA	1,200,000	863,000	GRANT
NEPAD-IPPF: ETHIOPIA AND SUDAN	2,000,000		GRANT
GOVERNMENT OF SUDAN	100,000		COUNTERPART
GOVERNMENT OF ETHIOPIA	100,000		COUNTERPART
TOTAL COST	3,400,000		

Timeframe - Main Milestones (expected)

Memorandum Approval	Dec 2019
Effectiveness	Mar 2020
Last Disbursement	Dec 2025
Completion	Dec 2024

Study Summary

1. The Governments of the Federal Democratic Republic of Ethiopia and The Sudan have completed bilateral agreements for cooperation in a number of economic sectors. Among them is an understanding to jointly develop a railway line, linking Addis Ababa in Ethiopia to Khartoum in Sudan, and extending to Port Sudan on the Red Sea coast. The Standard Gauge Railway (SGR) will follow the agreed route of Addis Ababa, along to Awash-Kombolcha-Weldiya, on to Wereta – Gonder – Metema – Galabat - Gadarif – Kassala – Haiya and to the Port of Sudan, a total estimated distance of 1,522 km.
2. The proposed SGR project is linked to the planned development of Special Economic Zones (SEZ) in the border regions of the two countries. The SEZ are intended to enhance production of local goods, industrialization and agro-processing thereby increasing the existing trade. The planned termination of the line at Port Sudan provides an additional sea access route for Ethiopia, which will most likely revive the full utilization of the Port of Sudan.
3. Development of this railway line is fundamental to enhancing trade and regional connectivity not only within the north-eastern part of the continent but also to the central African states of Chad and the Central Africa Republic. Once developed, the railway line will connect with the Kampala – Juba – Addis Ababa – Djibouti and the proposed Lamu to Addis Ababa (part of LAPSSET Corridor Development Program) transport corridors both of which are key priority corridor projects in PIDA and are supported by the Bank.
4. The principle objective of this Study is to finance the preparation of a full feasibility study of the proposed SGR between Ethiopia and Sudan. This will cover technical, economic and financial viability, social and environmental impact assessment, and alternative financing modalities including Public Private Partnership (PPP) model.
5. The estimated cost for undertaking the feasibility studies is USD 3,400,000. The studies will take 24-months to complete. The NEPAD-IPPF grant is already approved and procurement of is underway using advanced contracting procedures as approved by the Bank.
6. To finance the study, the NEPAD-IPPF has approved on 5 Nov 2019 grant resources to Ethiopia and Sudan with grant resources amounting to USD 2,000,000 which will cover 59% of the cost of the study. The African Development Fund (ADF) will provide Ethiopia with a grant amounting to UA 863,000 (equivalent to USD 1,200,000 covering 35% of the cost) from ADF 14 resources allocation to Ethiopia. The Sudan is under Bank sanctions and cannot receive ADF resources. The Governments of Sudan and Ethiopia will contribute counterpart funds amounting to USD 200,000 (6%).
7. The Study fits within a regional programme that has been prioritized by the respective member countries, linking to PIDA corridors and delivering of economic infrastructure necessary for achieving tangible development outcomes for the region. The Study aligns well with the objectives and operational priorities of the NEPAD-IPPF and those of the Bank by supporting industrialization, agricultural and agro processing development as well as regional integration, whilst also increasing the stock of bankable projects available for investment.

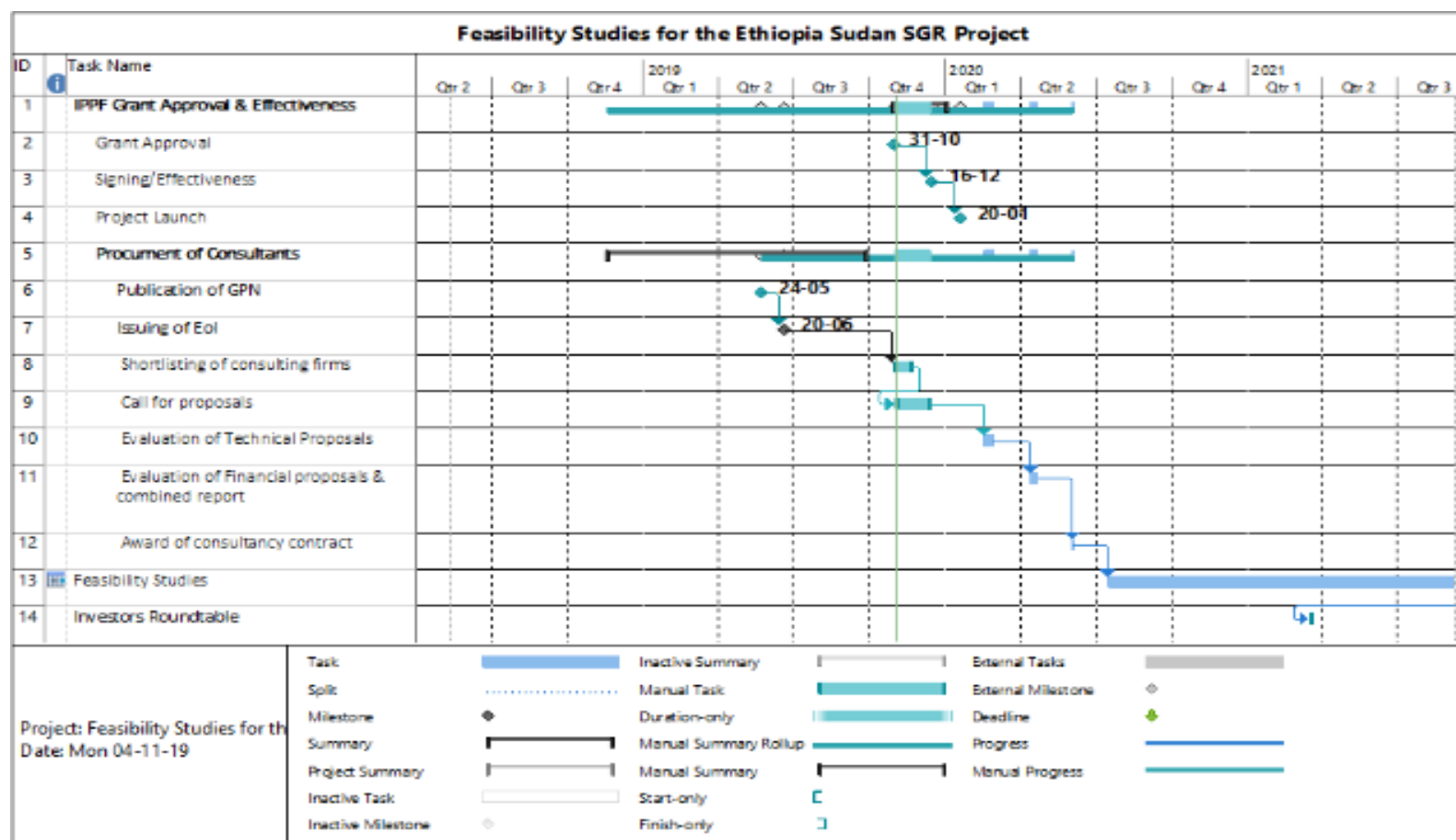
Result-based Logical Framework

Country and Study Name: Feasibility Study on the proposed Standard Gauge Railway (SGR) connecting Ethiopia and Sudan.

Purpose of the Study: To Prepare the Ethiopia Sudan SGR Project for investment financing

RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS / MITIGATION MEASURES
		Indicator (including CSI)	Baseline	Target		
IMPACT	<ul style="list-style-type: none">• Rational deployment of public and private financial resources• Contribute to potential increase in women-led SMEs in trans-border trading	Investor Round Table conferences to discuss investment options	No Plan	<ul style="list-style-type: none">• Specific investment plans• Specific plans discussed on how women led SME can participate more in trade	Study Reports	<u>Risks / Mitigation measures</u> 1. Political instability in both countries could affect study. Mitigation: Appoint more stable Ethiopia (ERC) to be EA. 2. Procurement delay risk. Mitigation: Using advanced contracting, procurement of was started early. 3. Implementation delay risk. Mitigation: PMU will closely liaise with both government and assist consultant.
OUTCOMES	<ul style="list-style-type: none">• Facilitate investment decision making on whether or not to invest in the Railway Project, and how.• Recommendations for effective Gender-based interventions along the transportation corridor	Stakeholder Round table to discuss and craft way forward	No interest	Clear decision on whether or not to build the railway. If yes, how to proceed		
OUTPUTS	<ul style="list-style-type: none">• Full Feasibility Study report• Financing & PPP viability Options• Completed ESIA/RAP documents.• Gender Analysis Report	<ul style="list-style-type: none">•Approved feasibility, study documents.•Approved Financing & PPP Options reports•Approved ESIA /RAP documents.•Approved Gender Analysis Report	No existing Feasibility Study, nor financing, PPP options & ESIA reports at present	<ul style="list-style-type: none">• Feasibility report – delivered by September 2021;• Financing & PPP Options Study report – delivered by September 2021;• Complete ESIA study documents delivered by September 2020.		
KEY ACTIVITIES	<ul style="list-style-type: none">• Consultancy Services for Full Feasibility Studies for the Ethiopia Sudan SGR Project;• Consultancy for Study / Project Audit Services• Support to Project Management Unit	COSTS feasibility Study USD 3,198,000 Support to PMU USD 167,000 Audit USD 35,000 TOTAL CostsUSD 3,400,000 (Excl. VAT)			RESOURCES NEPAD-IPPF: USD 2, 000,000 ADF Grant: USD 1,200,000 Counterpart Contribution USD 200,000 Total Resources USD 3,400,000	

Study Timeframe



REPORT AND RECOMMENDATION OF THE MANAGEMENT OF THE ADF TO THE BOARD OF DIRECTORS ON A PROPOSED GRANT TO ETHIOPIA FOR THE ETHIOPIA SUDAN STANDARD GAUGE RAILWAY STUDY

Management submits the following Report and Recommendation on a proposed grant to the Federal Democratic Republic of Ethiopia for Eight Hundred Sixty-Three Thousand Units of Account (UA 863,000) to finance the Ethiopia Sudan Standard Gauge Railway Study.

I – STRATEGIC THRUST & RATIONALE

1.1. Study linkages with country strategy and objectives

1.1.1 The proposed Ethiopia-Sudan Standard Gauge Railway (SGR) aims to deepen regional integration through improved transport infrastructure that will increase trade through efficient transport between the two countries of Ethiopia and Sudan. The project will improve the transport system serving Sudan and Ethiopia and other countries in the Horn of Africa region, including Kenya and South Sudan.

1.1.2 The proposed Study is aligned with Pillar 4 (bridging infrastructure gaps) of Ethiopian government's 5-year medium term development plan (Growth and Transformation Plan II, 2015/16-2019/20) and its national transport master plan on railway development. The study is aligned with Pillar I (infrastructure development) of the Bank's Country Strategy Paper for Ethiopia (CSP) 2016-2020. Bank Group support to Ethiopia's transport sector under its CSP seeks to link export and trade corridors with remote and productive regions and centres of commerce to catalyse rural transformation, spur regional growth poles and maximize benefits to rural households.

1.1.3 The proposed Study is in line with Government of Sudan (GoS)'s long term development goals as expressed in its Twenty-Five Year National Strategy (2007-2031), among which is to boost infrastructure development. The Study is also aligned with the country's priorities as stipulated in the medium –term "Economic Reform Program (ERP, 2015-2019 (strengthening infrastructure to catalyze the role of the private sector).

1.1.4 The proposed Study is in line with the dual objectives of the Bank's Ten-Year Strategy (TYS) 2013-2022 of inclusive and green growth and the operational priority on infrastructure development. The Study is also in line with the High 5s priorities. For instance, the proposed Study, when implemented, will improve national and regional connectivity, with focus on industrial zones, export corridors and other centers of high value-added production, thereby supporting the Feed Africa, Industrialize Africa and Improving the Quality of Life for Africans. By linking Ethiopia with regional and global markets, including via the Port of Sudan, the Study will directly contribute to Integrating Africa. The proposed Study is also consistent with the Bank's Regional Integration Strategic Framework (2018-2025) and Eastern Africa Regional Integration Strategy (2018-2022), which prioritize infrastructure investment, private sector growth, and economic competitiveness.

1.1.5 The Governments of Ethiopia and Sudan, building on existing intergovernmental cooperation in transport, endorsed the Study.

1.2. Rationale for Bank's involvement

1.2.1 The absence of a regional transport backbone connecting Ethiopia, Sudan and other countries in the Horn of Africa region hinders trade, development and regional integration. Movement of goods and people between Sudan and Ethiopia often requires the use of multimodal transport, which increases transportation costs and journey times. For example, the cost of moving freight in Sudan, though it compares well with the average for Africa, is almost twice compared to other emerging regions of the world. The average freight tariff between Khartoum and Port Sudan is about \$0.08 per tonne-kilometer compared to the global standard of around \$0.04 per tonne-km. Consequently, the proposed regional Standard Gauge Railway

(SGR) project, if found viable, would not only diversify Ethiopia and Sudan's access routes, it will contribute to reductions in transportation costs, boost trade and regional integration.

1.2.2 The hard infrastructure investments will augment the Bank funded Ethiopia-Djibouti transport corridor project and ongoing reforms to improve logistics efficiency and trade facilitation as well as diversify access routes to seaports in the Horn of Africa.

1.3. Donors coordination

1.3.1 In Ethiopia, Transport Sector Working Group (TSWG), which meets quarterly, is responsible for aid coordination and policy dialogue in Ethiopia transport sector. Donor support has played a significant role in the transport sector mainly by funding road construction. Between 1997 and 2017, the DPs collectively disbursed UA 2,497 billion (ETB 54.72 billion), representing 21.4% of funds disbursed in the road sub sector. The WB is the largest donor at 8.2%, followed by EU (4.4%), China (3.4%), and AfDB (2.4%). All donor support comes in form of specific projects that are aligned with government strategy (See Table 1.1).

Table 1.1: Donor Coordination in Ethiopia

Ethiopia Road subsector	Size		
	GDP	Exports	Labor Force
Construction	15%	N/A	N/A
Players - Public Annual Expenditure (Road Subsector)**			
Government	Donors	WB=8.2%; EU = 4.4%; China =3.4%; AfDB = 2.4%	
[UA 9,180 M] = 78.6%	[UA 2,497 M] = 21.4%		
Level of Donor Coordination			
Existence of Thematic Working Groups		[Y]	
Existence of SWAPs or Integrated Sector Approaches		[Y]	
ADB's Involvement in donors coordination***		[M]	

*** L: leader, M: member but not leader, none: no involvement

1.3.2 In Sudan, Transport Sector working Group, which meets quarterly, is responsible for aid coordination and policy dialogue in the transport sector. Sudan has invested heavily in infrastructure in recent years. In the transport sector, the road network has doubled in length to 6,200 kilometers (km) between 2000 and 2018, comprising well-developed internal corridors. Still, a sizable share of the country lacks roads and rural connectivity is almost nonexistent.

1.3.3 Both multilateral and bilateral lenders (member of the Paris club) have had limited operations in Sudan since the mid-nineties, owing to Sudan's external debt arrears. This has prevented access to concessional financing, reducing the role to humanitarian assistance while the International Monetary Funds (IMF), and the World Bank have been limited to providing technical assistance to help the country manage macroeconomic challenges and improve public financial management. Currently, the main partners financing development activities in Sudan include, the Islamic Development Bank (IsDB), IFAD, OFID and the Arab Funds as well as China. These partners have been the major sources of development financing, especially infrastructure development for almost two decades.

II – STUDY DESCRIPTION

2.1 Sector Goal and Study Objective

2.1.1 The transport sector goal is to contribute towards the socio-economic development by providing an efficient and effective transport system in Ethiopia and Sudan.

2.1.2 The purpose of the feasibility study is to determine whether, and under what conditions a railway line between Ethiopia and Sudan is technically, financially, economically, socially and environmentally viable. The railway line will link Addis Ababa in Ethiopia to Khartoum in Sudan, and extend to Port Sudan on the Red Sea coast. The generally accepted route is Addis Ababa-Awash-Kombolcha-Weldiya, on to Wereta – Gonder – Metema – Galabat - Gadarif – Kassala – Haiya and to the Port of Sudan, a total estimated distance of 1,522 km

2.2. Study components

The study will consist of the components listed below and summarised in Table 2.1.

1: Consultancy Services for Feasibility Study: This component will include:

- a) Demand analysis of passengers and goods between Ethiopia, Sudan, and consequent traffic forecasts, and impact on regional integration.
- b) Geotechnical investigations; topographic and aerial-photographic surveys; preliminary engineering design, and preparation of technical specifications. Designs will include geotechnical, horizontal and vertical alignment; track structure, drainage structures, signalling and communications systems, station buildings, marshalling yards, crossing loops and sidings, and will consider potential to use either electric and/ or diesel-electric power traction; preparation of working drawings and bidding documents, including environmental and social impact assessment and resettlement action plan.
- c) Capital cost estimation that includes cost of land acquisition; construction of civil works, signalling and communications, electric power / diesel power (as options) and train control system installations, track-laying and initial rolling stock.
- d) Operations and Maintenance (O&M): cost estimation for train crew; fuel/energy consumption; locomotive/wagon/carriage maintenance; fixed infrastructure maintenance; variable infrastructure maintenance; station operating costs.
- e) Financial analysis to include projected revenue, options / financing plans; cost –benefit analysis, including calculation of FIRR and NPV indicators
- f) Economic appraisal (benefit estimation: operating costs, timesavings, reduced emissions, accident cost reduction, reduced road maintenance costs; analysis of economic net benefit flows, including EIRR, NVP and B/C indicators.
- g) Reports; The consultant will prepare relevant reports to be submitted to the government and the Bank on each, but not limited to, the element listed above.
- h) A conference will be organised by the consultant to present and discuss the results of the feasibility study will be presented and discussed.

2: Support to Study Management

This component will include costs to be incurred by the Ethiopian Railways Corporation (ERC) and the Sudan Railways Corporation (SRC) in discharging their respective responsibilities. The costs will include all recurrent expenses, relevant travels, accommodation and per diem, etc.

ERC as the Executing Agency will manage all the elements of design in Ethiopia and Sudan including coordination between Ethiopia and Sudan governments and the consultants undertaking the study, and all other stakeholders.

3: Study Audit

A competent audit firm will be recruited competitively to audit the financial statements of the Study annually. The audit report and the Management letter will be submitted to the Bank no later than six (6) months after the close of the financial year.

Table 2.1: Cost of Study components

nr.	Component	USD Millions	Component description
1	Feasibility Study	3.198	<ul style="list-style-type: none">• Preliminary design• Environmental and Social impact assessment• Economic analysis• Detailed Engineering design• Financing Options
2	Support to Study management	0.167	<ul style="list-style-type: none">• Study coordination between Ethiopia and Sudan• Study management of the elements of design in Ethiopia and Sudan• Reporting and providing secretariat services to Study Coordination Committee
3	Audit	0.035	<ul style="list-style-type: none">• Provide financial and management audit of the study
	Total	3.400	

2.3. Technical solution retained and other alternatives explored

2.3.1 Railway is seen as the best method of transport when the line covers large distance (over 700km) and when the payload consists of huge volumes of cargo. Port Sudan is between 1500 km and 2,700 km north of Addis Ababa, depending which route one follows. Ethiopia is landlocked and therefore needs to develop alternative seaport. As net importers, Sudan and Ethiopia may have sufficient cargo to justify a rail link. A railway would complement the road transport network that exists between the two countries. A railway connection is desirable. However, the cost outlay is high and therefore the need for a careful study to check the project viability.

2.4. Project type

2.4.1 This project will be a stand-alone study.

2.5. Study cost and financing arrangements

2.5.1 Study Cost: The study will cost USD 3,400,000 consisting of cost for the consultancy services for the feasibility study (USD 3,198,000), support to the study management unit (USD 167,000) and audit consultancy services (USD 35,000). About 80% of the cost will be borne in foreign currency.

Table 2.2 outlines the cost of each component, in foreign currency (FC) and local currency (LC) costs, in both UA and USD. Tables 2.3a and 2.3b shows the costs of each category and Table 2.4 shows the annual expenditure by component throughout implementation.

Table 2.2: Study cost estimates by component [amounts in million USD and UA equivalents]

Costs of Components of the Study		Costs of Project						Per centage of FC
		UA (Millions)			US (Millions)			
		FC	LC	Total	FC	LC	Total	
i	Feasibility study consultancy services / FS	1.534	0.383	1.917	2.132	0.533	2.665	80%
ii	Support to Project Management / PMU	-	0.100	0.100	-	0.139	0.139	0%
iii	Project Audit consultancy services / ADT	-	0.021	0.021	-	0.029	0.029	0%
	Base Cost	1.534	0.504	2.038	2.132	0.701	2.833	
iv	Physical Contingencies (10% of Base cost)	0.153	0.050	0.204	0.213	0.070	0.283	
v	Price Cont (10% of Base Cost)	0.153	0.050	0.204	0.213	0.070	0.283	
	Project Cost (Excl. VAT)	1.840	0.605	2.445	2.558	0.841	3.400	
vi	VAT (15% of Project Cost)	-	0.367	0.367		0.510	0.510	
	Project Costs (Inclusive of VAT)	1.840	0.972	2.812	2.558	1.351	3.910	65%

Note: Exchange rates are provided in the introduction of this report

Table 2.3: Study cost by category of expenditure [amounts in million USD and UA equivalents]

Table 2.3a: ADF Grant resources only

Utilization of ADF Grant Resources (Figs incl. Contingencies)						
Categories	UA millions			USD Millions		
	FC	LC	Total	FC	LC	Total
Services	0.863	-	0.863	1.200	-	1.200
Operating cost		-	-		-	-
Total	0.863	-	0.863	1.200	-	1.200

Table 2.3b: Both NEAD-IPPF and ADF Grant resources

Utilization of Banks Grant Resources (Figs incl. Contingencies)						
Categories	UA millions			USD Millions		
	FC	LC	Total	FC	LC	Total
Services	1.840	0.485	2.325	2.558	0.674	3.233
Operating cost		0.120	0.120		0.167	0.167
Total	1.840	0.605	2.445	2.558	0.841	3.400

Table 2.4: Expenditure schedule by component [amounts in million USD]

Project Components		Annual Expenditure, USD Millions (Incl. Contingencies)				
		2020	2021	2022	2023	Total
ii	Feasibility study consultancy services / FS	0.640	0.959	0.959	0.640	3.198
iii	Support to Project Management / PMU	0.033	0.050	0.050	0.033	0.167
iv	Project Audit consultancy services / ADT	0.007	0.010	0.010	0.007	0.035
	Base Cost	0.680	1.020	1.020	0.680	3.400

2.5.2 Financing arrangements: ADF and NEPAD-IPPF will co-finance the project with total of USD 3.2 million and counterpart contribution of USD 200,000. The resources shall be deployed as shown in Table 2.5 below:

Table 2.5: Sources of financing [amounts in million USD and UA equivalents] and deployment of funds

Source of Funds	Amount of Funds available		Deployment of Funds (USD million)			
	UA Millions	USD Millions	FS	PMU	ADT	TOTAL
ADF Grant to Ethiopia	0.863	1.200	1.200			1.200
NEPAD-IPPF grant to Ethiopia / Sudan	1.439	2.000	1.998	0.002		2.000
Government of Sudan Counterpart	0.072	0.10		0.100		0.100
Government of Ethiopia Counterpart	0.072	0.10		0.065	0.035	0.100
Total	2.445	3.400	3.198	0.167	0.035	3.400

2.5.3 MOU: Sudan Railway Corporation signed on 19 April 2018 a memorandum delegating the authority of execution of the proposed study to the Ethiopian Railways Corporation.

2.6. Study's target area and population

2.6.1 The main beneficiaries of the feasibility study are the two governments who will have a sound basis for deciding whether to move ahead with the investment project. The governments will also benefit from the due diligence coming out of the study to attract funding from various sources including development partners and the private sector.

2.6.2 If the study proves that the railway project is viable, its implementation would affect a large part of the population of both Ethiopia (pop. 110 million) and Sudan (pop. 43 million and beyond as the railway connects with the rest of the transport network of the Horn of Africa. The primary beneficiaries would include farmers, industrialists and traders. Farmers and industrialists in the agricultural and industrial zones along Ethiopia's Awash River basin will gain access to improved and cost-effective transportation linkages, thereby increasing productivity, job creation and exports. Traders will benefit from reduced transportation costs and commute time along the Ethiopia – Sudan corridor, boosting competitiveness, supporting export growth, thereby increasing foreign exchange inflows. Women and youth will benefit from the ensuing economic and job opportunities. Details of the extent of target area and population will be determined during the study.

2.7. Participatory process for Study identification, design and implementation

2.7.1 In July 2016, the Governments of Ethiopia and Sudan submitted a joint request for financial support to: a) undertake a feasibility study for the establishment of Special Economic Zone (SEZ) at the border between the two countries; and, b) conduct bankable feasibility study for the proposed railway project. The requests were supported by several bilateral Agreements between the two countries, including one pertaining to the utilization of the Port of Sudan by Ethiopia.

2.7.2 In October 2016, the Bank undertook a Technical Mission to assess readiness of the railway Study and the commitment by the governments, where the government were asked to enter into consultations in order to clear as many issues as possible. Based on these consultations, the two Governments appointed Ethiopia to lead the proposed development and the Ethiopian Railways Corporation (ERC) was designated as the Executing Agency. Furthermore, the governments agreed on the route selection: the Study will start at Weldiya, off the Djibouti – Mekele railway line and runs through Wereta, Gonder, Metema (border town) and cross to Sudan passing through Galabat, Gadarif, Kassala, Haiya and to the Port of Sudan, a distance of about 1,522 km.

2.7.3 The Bank subsequently fielded an appraisal mission in March 2019 and under took further consultations with authorities during which it was confirmed that the study is ready for appraisal and preparation for the Board consideration. Further consultation with the participation of the wider

population, NGOs, community leaders, other stakeholders including landowners and other people affected by the project will be conducted during the study.

2.8. Bank Group experience, lessons reflected in Study design

Ethiopia

2.8.1 Since 1977, the Bank has invested over USD 1.1 billion (UA 800 m) in Ethiopia transport sector. As at 31 May 2018, the current portfolio is worth UA 300 million for the construction of 700 km of paved road of which 300km is completed.

2.8.2 The Ethiopian portfolio as well as road sector performance is satisfactory. The latest general portfolio rating is satisfactory at 3.1. The latest supervision IP rating for the ongoing transport projects range from 3 to 3.1. The 300km multinational Mombasa-Nairobi-Addis Ababa road corridor phase II and 112 km Bedele – Metu road project were substantially completed in 2017/18 and the PCRs for the former conducted in 2018. Phase III of the 200 km Mombasa – Nairobi - Addis Ababa road project and Phase I of Modjo – Hawassa Highway project (a 200km 4-lane expressway co-financed with Korea Exim Bank, World Bank and China Exim Bank) are ongoing.

2.8.3 The transport projects have had positive impacts. The 500km Mombasa – Nairobi - Addis Ababa road project has reduced travel times from Moyale to Hawassa from 2-3 days to 1 day. The Moyale OSBP completed in 2018 has seen a doubling of trade between Kenya and Ethiopia.

Sudan

2.8.4 In Sudan, overall performance of the Bank’s ongoing portfolio is rated satisfactory with a rating of 3 on a scale of 1 to 4. The sectoral distribution of the portfolio is as follows: Agriculture (51%), Social sector, consisting of education and gender (9%), Health (18%), Water and Sanitation (12%) and Governance and Policy dialogue (10%). The largest single financier of infrastructure investment is China, followed by Indian and Arab investors. Together they account for 40 percent of total annual investments, but almost or entirely allocated to the power sector. There has been very limited investment in transport sector development, and this explains the high costs of doing business in Sudan. Transport needs are largely driven by the need to maintain regional corridors and upgrade existing rural tracks to make them usable.

Lessons Learnt

2.8.5 The Bank has acquired considerable experience in supporting regional railway projects such as the Dar es Salaam-Isaka-Kigali-Musongati (Tanzania- Burundi) standard gauge railway study and design and having closely followed the development of Djibouti – Ethiopia railway line and the Kenya SGR, to link with Uganda. One of the key lessons learnt is that railway projects are expensive, and viability depends on distance served and type of traffic and demand. From studies, a railway line is profitable for at least 700km long from node to node and must have almost assured bulk load. Railway design must consider multimodal system because often railways station are usually far from the customer at both ends – first and last miles. Furthermore, the road, because of its flexibility and the fact that trucks serve door-to-door, is a major competitor, as well as it being complimentary. Estimates of traffic migrating from the road to the railway are often missed if they do not consider the full impact of the transport system competing with the railway. These lessons will be considered in the execution of the feasibility study.

2.9. Key performance indicators

2.9.1 The results-based log frame indicates the key performance indicators that will be used to measure the outputs and outcomes. The outputs include delivery of credible feasibility study, preliminary engineering design and financial analysis and recommendations and gender analysis. The indicators for

outcomes are holding of successful stakeholders' conferences during which the governments and other interested parties will discuss the report and decide whether there is a feasible project. The indicator for impact will be the successful holding of investor conferences.

III – PROJECT FEASIBILITY

3.1. Economic and financial performance

3.1.1 The most important output of the study will be the economic and financial analysis that will quantify the viability of the project based on the best technical option, upon which the financial options will be designed and evaluated.

3.2. Environmental and Social impacts

Environment

3.2.1 The environmental and social impact study will include baseline survey physical, biological and socio-economic aspects of the environment to be traversed, analysis of the different technical alternatives with the aim of integrating environmental and social considerations into the design and an environmental and social management plan. It is also expected that the study through extensive stakeholder and community engagement will obtain *practical* recommendations for managing environmental and social risks in the implementation phase.

Climate Change

3.2.2 The study will analyse the impact of railway line on climate change. Such issue as carbon dioxide (CO₂) emissions will be analysed as the designs considers use of diesel powered or electric powered locomotives.

Gender

3.2.3 In Ethiopia, various types of women traders associations exist, such as Ethiopian Women Entrepreneurs Association, Ethiopian Women Exporters Association, Alliance of Women Entrepreneurs Program, and the Center for Acceleration Women Economic Empowerment. Women businesses are concentrated mostly on trade (41%) compared to manufacturing, services (21%), urban agriculture (16%), and in construction (8%). In trade, women are concentrated in informal/petty trade and micro enterprises, mostly livelihood oriented and engaged in domestic product in small-scale and retail trade mostly limited to consumer goods. In terms of size, women in microenterprises are 65%, small scale enterprises are 26%, and 10% are medium enterprises (UNCTAD, 2016). The informal cross border trade is both a source of employment and livelihood particularly for people living in border areas of the country. The role of women in cross border trade is linked to small trades of different goods/products. There is limited data on cross border trade in general and women's involvement in particular since it functions in the informal. A Gender Analysis Report is therefore pertinent to gather information that lends evidence to the activities to be designed during implementation.

3.2.4 The report will address the challenges facing women including inadequate provision of relevant training and skills development, finance and market, women friendly technologies, effective business networks and information. It will also support development of gender responsive economic empowerment programs in trade and improve women friendly environment for small-scale traders, while also encouraging gradual formalization of trade activities;

3.2.5 Another gender related issue is that of migration. Whilst nomadic groups are more present on the Sudan side than in Ethiopia, the majority of people on both sides of the border live in rural areas. The number of people living in the area is predicted to grow significantly due to an influx of labourers, irregular migrants and refugees from Sudan, South Sudan and Eritrea. The issue of migration along the

border is of significance. Most of these migrants are young (aged between 18 and 30 years) and literate. Data collected on irregular migrants intercepted at Metema showed that 66% of these migrants were aged between 18 and 30 years, 29% were under the age of 18, and only 5% were aged over 30 years. In terms of gender, 36% were female and 64% were male. According to the EU, young men far outnumber female migrants.

3.2.6 According to a report by EU Trust Fund, natural resources such as rivers, forests, quarries, parks and infrastructure are shared across the border, and communities on both sides engage in gold mining, and the production of incense, gum arabic, charcoal and stones and sand for construction. However, these resources are not being adequately shared across borders, or even across social groups or gender lines. Women on the border, for example, often have less access to land, limited or no control over resources, fewer economic opportunities, and are exposed to gender-based violence.

3.2.8 The study is expected to collect and document information on a range of socio-economic and demographic variables that will a) inform the feasibility/alternative analysis and design selection b) serve as baseline data. This will enable an investment decision that is socially acceptable and economically beneficial at local, regional and national level. The process of information gathering of the feasibility study is expected to be consultative, inclusive and adequately documented. The study will also propose positive impact enhancement or complementary initiatives.

Involuntary resettlement

3.2.9 A detailed Environmental and Social Impact Assessment (ESAI) and Resettlement Action Plan (RAP) that addresses the potential positive and negative social impact, including physical and livelihood displacement, will be developed in accordance with the safeguard requirements of the Bank.

3.3 Regional Integration

3.3.1 The proposed railway line under consideration will enhance connectivity between The Sudan (GDP 112.082bn) and Ethiopia (GDP112.001)¹ and boost integration and trade between the first and second biggest economies in Eastern Africa by GDP. It is a priority regional project as it provides connectivity with key PIDA corridors and is fully aligned with the Bank's regional Integration Strategic Framework (RISF-2018-2025) and the Eastern Africa Regional Integration Strategy paper (EA-RISP 2018-2022).

3.3.2 The project, if feasible will provide alternative routes and options for multi-modal linkages between roads and railways and enhance competitiveness of the various transport corridors and ports.

3.3.3 Currently both Ethiopia and Sudan score quite unfavourably in the Doing Business Report and are ranked at position 159 and 162 respectively out of 190 countries globally in 2019. In the trading across borders sub-index, Ethiopia is ranked 154 and the time to comply with border controls stands at 51 hours. The corresponding figures for Sudan are 87 (trading across borders rank) and 84 (border compliance hours). The Logistics Performance Index for 2018 places Sudan at position 121 out 160. Ethiopia was last ranked in 2016 at 126 out of 160. Kenya was then ranked 42, Tanzania 61 and Sudan 103.

¹ GDP figures are at current prices for 2018. Data source AfDB Africa Information Highway

IV – IMPLEMENTATION

4.1. Implementation arrangements

Study Oversight

4.1.1 The Ethiopian Railways Corporation (ERC) will be the Executing Agency for the proposed feasibility study. The ERC is a State Owned Enterprise established in 2007 with the mission to establish an urban and national railway network, with links to neighbouring countries. In addition to building new railways lines, ERC is also responsible for managing both passenger and freight rail operations.

4.1.2 The Chief Executive Officer (CEO) of ERC shall have overall authority and responsibility over implementation of the study. A suitably qualified and experienced Project Coordinator (PC), based in Addis Ababa and reporting to the CEO of ERC will be appointed to be responsible for the day-day management of the study including procurement, supervision of the study consultancy and of financial resources under the Study and regular reporting. Technical and financial progress reports will be submitted to the Bank on a quarterly basis. Sudan Railways Corporation shall appoint a counterpart PC, based in Khartoum, who shall liaise with the ERC PC during the implementation this study.

4.1.3 To ensure country ownership of the study and its outcomes, the EA shall ensure the active participation of key stakeholders from both countries during implementation of the study so that it takes into account all important issues and considerations.

4.1.4 The EA shall establish a Project Coordinating Committee (PCC) co-chaired by the CEO of ERC and Managing Director (MD) of Sudan Railways Corporation (SRC), comprising the relevant technical and managerial personnel. The PCC shall be the technical and managerial resource for Study and have oversight responsibility for the development and preparation of the Feasibility Study.

4.2 Procurement

4.2.1 Procurement of Goods and the acquisition of consulting services, financed by the Bank for the project, will be carried out in accordance with the “Procurement Policy for Bank Group Funded Operations”, dated August 2015 and following the provisions stated in the Financing Agreement. Specifically, Procurement would be carried out following:

- *BPS* – Borrower Procurement System: Specific Procurement Methods and Procedures (PMPs) under BPS comprising its Laws and Regulations, namely: Public Procurement and Property Administration Proclamation (September, 2009) and Federal Public Procurement Directives (June, 2010), using the national Standard Solicitation Documents (SSDs) or other SDs agreed during project negotiations” under the defined thresholds for goods (USD100, 000.00), Non-consulting services (USD30, 000.00) and consulting services (USD100, 000.00), in accordance with;
- *Bank PMPs*: Bank standard PMPs, using the relevant Bank Standard or Model SDs, for contracts that are either: (i) above the above-captioned thresholds, or (ii) in case BPS is not relied upon for any category of procurement.

4.2.2 Procurement Risks and Capacity Development: Country, Sector, Executing Agency (EA) namely: Ethiopia Railway Corporation on behalf of the two Governments, and Project procurement risk assessments were undertaken for the project and the output have informed the decisions on the procurement regimes (BPS, or Bank) and the PMPs being used for specific transactions or groups of similar transactions under the project. The appropriate mitigation measures and costs have been included in the procurement capacity development action plan (CDAP) under the project.

4.2.3 The procurement arrangements for the various components, elements, and items, under the different expenditure categories to be financed by the Loan/Grant and procured using BPS, Bank, and or Third Party PMPs, are summarized in Table 5.1 below. Large-value contracts, each group of similar transactions/contracts, the different PMPs, estimated costs, oversight requirements, and the timeframe as agreed between the Borrower and the Bank, are documented in the Procurement Plan.

Table 4.2 - Summary of Procurement Arrangements

Study Categories	Amounts in USD millions						
	Borrower PMPs			Bank PMPs			Total
	OCB	LCB	Other	OCB	LCB	Other	
1. Consulting Services- Feasibility Studies for SGR				3.2*			3.2
2. Goods, Non-Consulting Services and Study Coordination			0.17				0.17
3. Study Audit				0.03			0.03
TOTAL			0.17	3.23			3.4

*NB: Figures with * are amounts financed by the Bank, Fund or NTF or NEPAD-IPPF*

4.2.4 Advance Procurement: Subject to the provisions of paragraph below, the Bank authorized Advance Contracting for the following: shortlisting of consultancy services for the feasibility study under component 1 of the Program in accordance with the Bank’s PMPs within a period of two months prior to the Date of Signature in accordance with the Bank’s Procurement Policy Framework.

4.2.4 The Recipient acknowledges and agrees that the authorization by the Bank for the use of Advance Contracting in accordance with paragraph above, does not, in any way constitute an offer or undertaking by the Bank to finance the contract awarded by the Recipient in respect of the Advance Contracting

4.3 Financial Management

4.3.1 The Bank conducted an FM assessment to ascertain the adequacy of the financial management system of the Executing Agency, Ethiopian Railways Corporation (ERC) based on the Bank’s FM Implementation Guidelines-2014. The assessment concluded that the overall risk is “Moderate”.

4.3.2 The Project will substantially make use of ERC’s Financial Management System. The overall responsibility of financial management (including Budgeting, Accounting system, Internal Control, Treasury Management/Funds Flow, Financial Reporting and External Audit arrangements) rests with the Management of ERC under the Financial Management and Procurement Directorate Director. The Project FM function will be implemented within the ERC structure under the Finance Director. A Project Accountant with the knowledge and experience acceptable to the Bank will be assigned to carry out the finance function of the Project and will be supervised by the Project Coordinator and the Finance Director. The Internal Audit Department will, as part of its routine activities, audit the Project financial transactions regularly and accordingly share the reports with the Bank during the bi-annual Supervision Missions.

4.3.3 ERC has its own customized IFRS based Financial Policy manual. The Project is expected to use the IFRS accounting and financial reporting system of the Corporation. The Project Implementation team in collaboration with the Finance Director will be required to produce quarterly interim financial reports for the project with the quarterly progress reports, which will be submitted to the Fund no later than forty-five (45) days after the end of each quarter. ERC will also submit annual project audit report within six months after the end of each fiscal year.

4.4 Disbursement

4.4.1 The grant resources will be disbursed in accordance with the Bank's disbursement procedures, which are also utilised by the NEPAD-IPPF. Payment of consultancy fees and charges associated with the services will be disbursed using the Direct Payment method upon certification of invoices by the Executing Agency and verification by the Bank. Payments for Study management related local expenses would be disbursed to a Special Account to be opened by the Executing Agency.

4.4.2 All disbursements under the grant will follow the procedures and standard supporting documents outlined in the Bank's Disbursement Handbook.

4.5 Supervision and Monitoring

4.5.1 The Executing Agency (ERC) will monitor the implementation of the services and forward to the Bank quarterly progress reports providing updated information on implementation. The reports will highlight the key issues and problem areas and proposed solutions.

4.5.2 The Bank will monitor the Study through review of the quarterly reports and key outputs of the studies. Bank will be undertaking two mission a year to supervise the Study.

4.5.3 At completion of the services, the Executing Agency will prepare and submit to the Bank a Study completion report in line with the acceptable format. The Bank will use the report as background document to prepare its own completion report.

4.6. Risk management

4.6.1 Political risk – Both Ethiopia and Sudan have undergone recent political developments that leave them exposed to moderate to high risk of political instability. To mitigate the Sudan risk, the two Governments have designated Ethiopia Railways Corporation as the Executing agency.

4.6.2 Procurement Delay risks – Delays could arise during the procurement process. In mitigation, Ethiopia has applied, and the Bank has approved the use of Advanced Contracting Procedures.

4.6.3 Implementation Delays risks - Difficulties in accessing sites, approval of data or validation of reports, consensus building, and others could delay the study implementation. To mitigate, the Study has provided for close liaison between the two government and deep consultations with all stakeholders.

4.7. Knowledge building

The Ethiopia – Sudan Standard Gauge Railway study consist of collecting, analysing and assembling data which will form a source of knowledge to inform the Bank, governments of Ethiopia and Sudan, and prospective financiers of the viability and conditions for successful implementation of this and similar projects. Therefore, the study will generate knowledge on the feasibility, design, and implementation of SGRs in the region.

V – LEGAL INSTRUMENTS AND AUTHORITY

5.1. Legal instrument

The financing instrument to be used for this study is a protocol of agreement for an amount not exceeding Eight Hundred Sixty-Three Thousand Units of Account (UA 863,000) to be signed between the Fund and the Federal Democratic Republic of Ethiopia;

5.2. Conditions associated with Bank's intervention

Section 1.02. Entry into Force and Disbursement: The Agreement shall enter into force on the Date of Signature by the Recipient and the Fund

Section 2.03. Condition Precedent to First Disbursement. The obligation of the Fund to make the first disbursement of the Grant shall be subject to the entry into force of the Agreement

5.3. Compliance with Bank Policies

This Study complies with all applicable Bank policies.

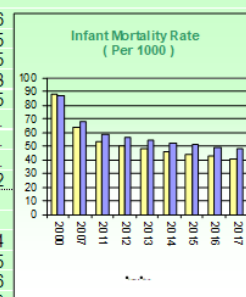
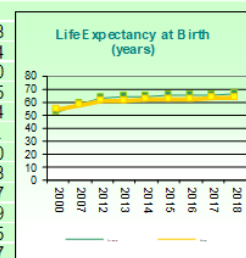
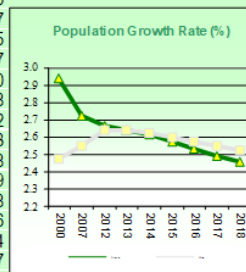
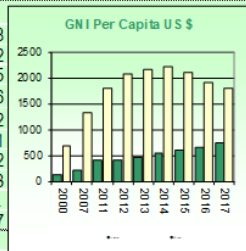
VI – RECOMMENDATION

Management recommends that the Board of Directors approve the proposed ADF 14 grant of Eight Hundred Sixty-Three Thousand Units of Account (UA 863,000) to the Federal Democratic Republic of Ethiopia for the purposes and subject to the conditions stipulated in this report.

Appendix Ia. Country's comparative socio-economic indicators

Ethiopia COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Ethiopia	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2018	1,104	30,067	92,017	40,008
Total Population (millions)	2018	107.5	1,286.2	6,432.7	1,197.2
Urban Population (% of Total)	2018	20.8	42.5	50.4	81.5
Population Density (per Km ²)	2018	106.9	43.8	71.9	31.6
GNI per Capita (US \$)	2017	740	1,767	4,456	40,142
Labor Force Participation - Total (%)	2018	83.1	65.9	62.1	60.1
Labor Force Participation - Female (%)	2018	77.2	55.5	47.6	52.2
Sex Ratio (per 100 female)	2018	99.7	99.8	102.3	99.3
Human Develop. Index (Rank among 189 countries)	2017	173
Popul. Living Below \$ 1.90 a Day (% of Population)	2007-2017	26.7	...	11.9	0.7
Demographic Indicators					
Population Growth Rate - Total (%)	2018	2.5	2.5	1.2	0.5
Population Growth Rate - Urban (%)	2018	4.7	3.6	2.3	0.7
Population < 15 years (%)	2018	40.0	40.6	27.5	16.5
Population 15-24 years (%)	2018	21.8	19.2	16.3	11.7
Population >= 65 years (%)	2018	3.5	3.5	7.2	18.0
Dependency Ratio (%)	2018	76.3	79.2	53.2	52.8
Female Population 15-49 years (% of total population)	2018	24.9	24.1	25.4	22.2
Life Expectancy at Birth - Total (years)	2018	66.3	63.1	67.1	81.3
Life Expectancy at Birth - Female (years)	2018	68.2	64.9	69.2	83.8
Crude Birth Rate (per 1,000)	2018	30.7	33.4	26.4	10.9
Crude Death Rate (per 1,000)	2018	6.5	8.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2017	41.0	47.7	32.0	4.6
Child Mortality Rate (per 1,000)	2017	58.5	68.6	42.8	5.4
Total Fertility Rate (per woman)	2018	4.0	4.4	3.5	1.7
Maternal Mortality Rate (per 100,000)	2015	353.0	444.1	237.0	10.0
Women Using Contraception (%)	2018	42.5	38.3	61.8	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2010-2016	2.2	33.6	117.8	300.8
Nurses and midwives (per 100,000 people)	2010-2016	23.6	123.3	232.6	868.4
Births attended by Trained Health Personnel (%)	2010-2017	27.7	61.7	78.3	99.0
Access to Safe Water (% of Population)	2015	57.3	71.6	89.4	99.5
Access to Sanitation (% of Population)	2015	28.0	39.4	61.5	99.4
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2017	0.9	3.4	1.1	...
Incidence of Tuberculosis (per 100,000)	2016	177.0	221.7	163.0	12.0
Child Immunization Against Tuberculosis (%)	2017	85.0	82.1	84.9	95.8
Child Immunization Against Measles (%)	2017	65.0	74.4	84.0	93.7
Underweight Children (% of children under 5 years)	2010-2016	23.6	17.5	15.0	0.9
Prevalence of stunting	2010-2016	38.4	34.0	24.6	2.5
Prevalence of undernourishment (% of pop.)	2016	21.4	18.5	12.4	2.7
Public Expenditure on Health (as % of GDP)	2014	2.9	2.6	3.0	7.7
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-2017	101.9	99.5	102.8	102.6
Primary School - Female	2010-2017	97.0	97.4	102.0	102.5
Secondary School - Total	2010-2017	35.1	51.9	59.5	108.5
Secondary School - Female	2010-2017	34.4	49.5	57.9	108.3
Primary School Female Teaching Staff (% of Total)	2010-2017	37.2	48.7	53.0	81.5
Adult literacy Rate - Total (%)	2010-2017	...	65.5	73.1	...
Adult literacy Rate - Male (%)	2010-2017	...	77.0	79.1	...
Adult literacy Rate - Female (%)	2010-2017	...	62.6	67.2	...
Percentage of GDP Spent on Education	2010-2015	4.5	4.9	4.1	5.2
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2016	15.1	8.0	11.3	10.4
Agricultural Land (as % of land area)	2016	36.3	38.2	37.8	36.5
Forest (As % of Land Area)	2016	12.5	22.0	32.6	27.6
Per Capita CO2 Emissions (metric tons)	2014	0.1	1.1	3.5	11.0



Sources : ADB Statistics Department Databases; World Bank: World Development Indicators;

last update : February 2019

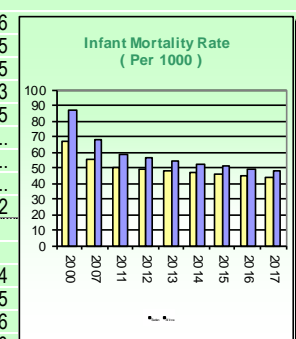
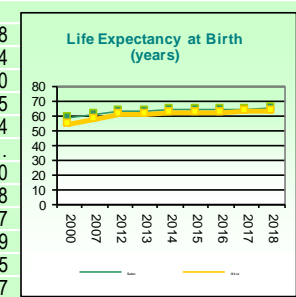
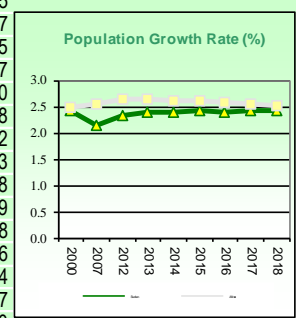
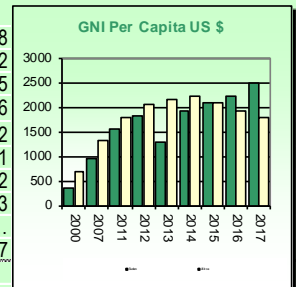
UNAIDS; UNSD; WHO; UNICEF; UNDP; Country Reports.

Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Appendix Ib. Country's comparative socio-economic indicators - Sudan

	Year	Sudan	Africa	Develo- ping Countries	Develo- ped Countries
Basic Indicators					
Area ('000 Km²)	2018	1,879	30,067	92,017	40,008
Total Population (millions)	2018	41.5	1,286.2	6,432.7	1,197.2
Urban Population (% of Total)	2018	34.6	42.5	50.4	81.5
Population Density (per Km²)	2018	24.5	43.8	71.9	31.6
GNI per Capita (US \$)	2017	2 380	1 767	4 456	40 142
Labor Force Participation *- Total (%)	2018	47.8	65.9	62.1	60.1
Labor Force Participation **- Female (%)	2018	24.2	55.5	47.6	52.2
Sex Ratio (per 100 female)	2018	99.9	99.8	102.3	99.3
Human Develop. Index (Rank among 189 countries)	2017	167
Popul. Living Below \$ 1.90 a Day (% of Population)	2007-2017	14.9	...	11.9	0.7
Demographic Indicators					
Population Growth Rate - Total (%)	2018	2.4	2.5	1.2	0.5
Population Growth Rate - Urban (%)	2018	3.2	3.6	2.3	0.7
Population < 15 years (%)	2018	40.5	40.6	27.5	16.5
Population 15-24 years (%)	2018	20.4	19.2	16.3	11.7
Population >= 65 years (%)	2018	3.6	3.5	7.2	18.0
Dependency Ratio (%)	2018	75.1	79.2	53.2	52.8
Female Population 15-49 years (% of total population)	2018	24.2	24.1	25.4	22.2
Life Expectancy at Birth - Total (years)	2018	64.9	63.1	67.1	81.3
Life Expectancy at Birth - Female (years)	2018	66.6	64.9	69.2	83.8
Crude Birth Rate (per 1,000)	2018	32.2	33.4	26.4	10.9
Crude Death Rate (per 1,000)	2018	7.3	8.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2017	43.7	47.7	32.0	4.6
Child Mortality Rate (per 1,000)	2017	63.2	68.6	42.8	5.4
Total Fertility Rate (per woman)	2018	4.4	4.4	3.5	1.7
Maternal Mortality Rate (per 100,000)	2015	311.0	444.1	237.0	10.0
Women Using Contraception (%)	2018	16.7	38.3	61.8	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2010-2016	28.0	33.6	117.8	300.8
Nurses and midwives (per 100,000 people)	2010-2016	115.7	123.3	232.6	868.4
Births attended by Trained Health Personnel (%)	2010-2017	77.7	61.7	78.3	99.0
Access to Safe Water (% of Population)	2014	55.5	71.6	89.4	99.5
Access to Sanitation (% of Population)	2014	23.6	39.4	61.5	99.4
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2017	0.2	3.4	1.1	...
Incidence of Tuberculosis (per 100,000)	2016	82.0	221.7	163.0	12.0
Child Immunization Against Tuberculosis (%)	2017	97.0	82.1	84.9	95.8
Child Immunization Against Measles (%)	2017	90.0	74.4	84.0	93.7
Underweight Children (% of children under 5 years)	2010-2016	33.0	17.5	15.0	0.9
Prevalence of stunting	2010-2016	38.2	34.0	24.6	2.5
Prevalence of undernourishment (% of pop.)	2016	25.2	18.5	12.4	2.7
Public Expenditure on Health (as % of GDP)	2014	1.8	2.6	3.0	7.7
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-2017	76.4	99.5	102.8	102.6
Primary School - Female	2010-2017	73.9	97.4	102.0	102.5
Secondary School - Total	2010-2017	44.3	51.9	59.5	108.5
Secondary School - Female	2010-2017	43.9	49.5	57.9	108.3
Primary School Female Teaching Staff (% of Total)	2010-2017	...	48.7	53.0	81.5
Adult literacy Rate - Total (%)	2010-2017	...	65.5	73.1	...
Adult literacy Rate - Male (%)	2010-2017	...	77.0	79.1	...
Adult literacy Rate - Female (%)	2010-2017	...	62.6	67.2	...
Percentage of GDP Spent on Education	2010-2015	...	4.9	4.1	5.2
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2016	...	8.0	11.3	10.4
Agricultural Land (as % of land area)	2016	...	38.2	37.8	36.5
Forest (As % of Land Area)	2016	...	22.0	32.6	27.6
Per Capita CO2 Emissions (metric tons)	2013	0.3	1.1	3.5	11.0



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

last update :

February 2019

UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

Note : n.a. : Not Applicable ; ... : Data Not Available. * Labor force participation rate, total (% of total population ages 15+)

** Labor force participation rate, female (% of female population ages 15+)

Appendix IIa. Table of ADB's portfolio in the country 2019- Ethiopia

No	Project	Loan/Grant		Disbursement	IP	DO	PFI Status	Age	Closing Date
		Approval Date	Amount (UA)	Ratio				Years	
PUBLIC SECTOR OPERATIONS									
AGRICULTURE SECTOR			69,482,000						
1	Drought Resilience and Sustainable Livelihoods I	19-Dec-12	30,000,000	50.21%	3	3	NON-PP/NON PPP	6.3	31-Dec-21
2	Drought Resilience and Sustainable Livelihoods II	26-Nov-14	28,482,000	32.27%	2.78	3	NON-PP/NON PPP	4.4	31-Dec-20
3	Integrated Agro Industrial Parks Support Project	6-Dec-18	11,000,000	0.00%	NR	NR	NON-PP/NON PPP	0.4	31-Dec-23
TRANSPORT SECTOR			299,027,699						
4	Mombasa-Nairobi- Addis Road Corridor-Hawassa-Agere Mariam Road Project (Phase III)	30-Nov-11	105,000,000	78.59%	3	3	NON-PP/NON PPP	7.4	31-Dec-19
5	Bedele-Metu Road Upgrading	10-Nov-11	41,060,000	84.42%	3	3	NON-PP/NON PPP	12.4	30-Dec-19
6	Mojo-Hawassa Highway Road Project Phase I	6-Nov-13	84,080,000	61.20%	3.2	3	NON-PP/NON PPP	5.5	31-Dec-20
	Mojo-Hawassa Highway Road Project Phase I*	6-Nov-13	1,630,000	35.48%	3.2	3	NON-PP/NON PPP	5.4	31-Dec-20
7	Ethiopia Integrated Transport Program Phase I*	7-Dec-16	41,667,836	14.05%	3	3	NON-PP/NON PPP	2.4	31-Dec-23
	Ethiopia Integrated Transport Program Phase I	7-Dec-16	25,589,863	15.31%	3	3	NON-PP/NON PPP	2.4	31-Dec-23
ENERGY SECTOR			296,040,000						
8	Ethiopia-Kenya Electricity Highway Project	19-Sep-12	150,000,000	54.64%	4	3	NON-PP/NON PPP	6.6	31-Dec-20
9	Mekelle-Darlot & Semera-Adera Power Transmission Project	14-Jul-16	73,810,000	10.46%	3	3	NON-PP/NON PPP	2.8	31-Dec-20
10	Addis Ababa Transmission & Distribution System Rehabilitation and Upgrading Project	22-Nov-17	61,410,000	0.19%	3	3	NON-PP/NON PPP	1.4	31-Dec-23
	Addis Ababa Transmission & Distribution System Rehabilitation and Upgrading Project*	22-Nov-17	10,820,000	1.64%	3	3	NON-PP/NON PPP	1.4	31-Dec-23
WATER SECTOR			124,942,049						
11	Support to the One Water Sanitation and Hygiene National Program	8-Sep-14	60,000,000	90.44%	4	4	NON-PP/NON PPP	4.7	30-Jun-19
	Support to the One Water Sanitation and Hygiene National Program*	8-Sep-14	6,810,000	57.36%	4	4	NON-PP/NON PPP	4.7	30-Jun-19
	Additional Financing to the One Water Sanitation and Hygiene National Program	30-Mar-17	2,280,000	100%	4	4	NON-PP/NON PPP	2.1	30-Jun-19
	Additional Financing to the One Water Sanitation and Hygiene National Program*	30-Mar-17	1,840,000	100%	4	4	NON-PP/NON PPP	2.1	30-Jun-19
12	Four Towns Water and Sanitation Improvement Program	13-Jan-16	54,012,049	2.42%	3	3	NON-PP/NON PPP	3.3	31-Dec-21
MULTI - SECTOR			269,833,000						
13	Basic Services Transformation Program	17-Dec-15	180,000,000	100%	3	4	NON-PP/NON PPP	3.3	31-Dec-18
	Basic Services Transformation Program Supplementary Financing	14-Nov-18	88,660,000	0%	NR	NR	NON-PP/NON PPP	0.4	31-Jul-20
14	Institutional Support project for PPPs	26-May-15	1,173,000	52.01%	3	3	NON-PP/NON PPP	3.9	30-Nov-19
PUBLIC SECTOR TOTAL			1,059,324,748						
PRIVATE SECTOR OPERATIONS									
15	Ethiopian Airlines	14-Dec-16	91,071,429	100%	3	3	NON-PP/NON PPP	2.4	31-Dec-17
PRIVATE SECTOR TOTAL			91,071,429						
TOTAL INVESTMENT OPERATIONS			1,150,396,177						
TRUST FUNDS									
16	Marketing and Service Chain Support for Total Sanitation in Arba Minch	11-Jun-15	973,536	58.93%	3	3	NON-PP/NON PPP	3.9	30-Sep-20
17	Strengthening National Evaluation Systems in Africa Initiative	1-Jan-18	178,571		NR	NR	NON-PP/NON PPP	1.3	31-May-19
18	Technical Assistance for Customs Reforms and Modernization to Africa's Eight Landlocked Countries (KOAPEC Trust Fund) ¹	31-May-18	434,971		NR	NR	NON-PP/NON PPP	0.9	31-May-19
19	Technical Assistance to Logistics Reform	15-Oct-18	71,429		NR	NR	NON-PP/NON PPP	0.5	15-Oct-20
20	Ethiopia-Eritrea Trade Transport Corridor Diagnostic Study ²	15-Nov-18	249,000		NR	NR	NON-PP/NON PPP	0.4	30-Nov-20
21	Preparation of Strategic Plan for Agricultural and Rural Statistics of Ethiopia (SPARS ETH)	1-Jun-18	43,571		NR	NR	NON-PP/NON PPP	0.9	
22	Organic and Fair Trade Red Pepper & Tropical Spices	30-Nov-17	139,286		NR	NR	NON-PP/NON PPP	1.4	
23	Premium Coffee cultivation & processing	30-Nov-17	107,143		NR	NR	NON-PP/NON PPP	1.4	
TOTAL TRUST FUNDS			2,197,507						
TOTAL PORTFOLIO			1,152,593,684						
*Grant component		USD	1,613,631,158		3.1	3.1		4.7	
¹ The project targets eight landlocked countries in Africa including Ethiopia. The budget is not specific to Ethiopia but is shared among the eight countries.									
² The project is jointly co-financed by the AfDB and the European Union.									

Appendix IIb. Table of ADB's portfolio in the country 2019- Sudan

STATUS OF ONGOING OPERATIONS AS OF 2019

PUBLIC SECTOR GRANTS

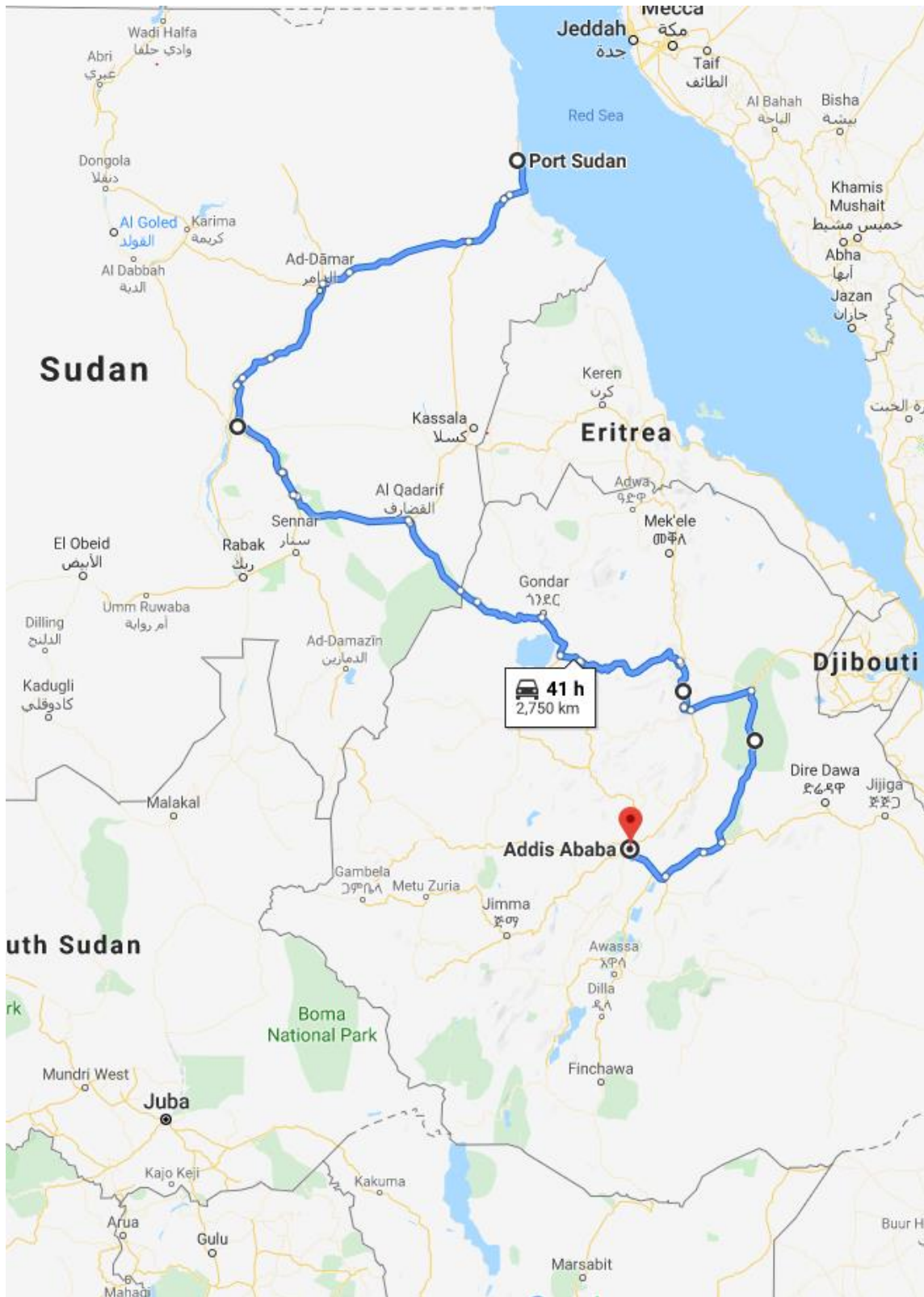
No	Project Name	Window	Sector	Approval Date	Disburse Deadline	Loan Number	Amount Approved (UA)	Amount Disbursed (UA)	Disbursed Rate (%)
1.	Drought Resilience and Sustainable Livelihood Program Phase II	ADF	Agriculture & Livestock	14.11.2014	31.12.2020	2100155028970	10,000,000	2478902.41	24.79%
	Drought Resilience and Sustainable Livelihood Program Phase II	TSF	Agriculture & Livestock	14.11.2014	31.12.2020	5900155007901	10,000,000	720491.51	7.30%
2.	Drought Resilience and Sustainable Livelihood Program Phase III	ADF (RO)	Agriculture & Livestock	14.11.2015	30.06.2021	2100155030121	10,000,000	724158.48	7.24%
3.	Building Capacity for Inclusive Service Delivery	50% of PBA	Social Sector (Health)	02.03.2015	30.06.2020	2100155029468	27,990,000	6,018,098.22	21.50%
4.	Capacity Building for Improved Quality of Education and Skills Development	TSF Pillar 1	Social Sector (Education)	14.05.2015	30.05.2020	5900155008451	15,300,000	5,372,951.94	35.12%
5.	Water Sector Reform Project	TSF Pillar 1	Social Sector (Water & Sanitation)	10.07.2015	30.07.2020	5900155008851	15,000,000	4798176.82	31.99%
	Water Sector Reform Project	RWSSI - TF	Social Sector (Water & Sanitation)	09.09.2015	30.06.2020	5800155001551	647621.21	580956.69	89.71%
6.	Capacity Building for Enhanced Women Participation in Peace Building and Economic Activities	TSF Pillar III	Multi-sector	02.02.2016	31.12.2019	5900155009901	3,200,000.00	1882724.56	58.84%
7.	Enable Youth Program	TSF Pillar 1	Agriculture	28.11.2016	28.11.2021	5900155011051	19,700,000	3187935.51	16.18%
	Enable Youth Program	ADF	Agriculture	28.11.2016	28.11.2021	2100155033617	1250000	648515.06	51.88%
8.	Institutional Capacity Building for Improved Access to Water and Sanitation in Port Sudan	TSF Pillar 1	Water & Sanitation	15.10.2017	31.12.2022	5900155012501	15,000,000.00	269457.02	1.80%
9.	Improving Health Services and Systems Strengthening	TSF Pillar I	Health	15.1.2018	15.1.2023	5900155013051	20,050,000.00	1,895,929.49	9.46%
10.	Agricultural Value Chain Development Project (AVCDP)	TSF, FAPA	Agriculture	June 2018	31-12.2023	5900155013802	24,950,000	426786.56	1.71%
	Agricultural Value Chain Development Project (AVCDP)	ADF	Agriculture	June 2018	31-12.2023	2100155037466	4,000,000	0	0
11.	Policy Support to Preparation for Debt Relief	TSF Pillar?	Multi-Sector	12.01.2018	30.06.2020	5900155013652	660,000.00	98,199.55	14.88%
12.	Emergency Assistance to White Nile State 2018	Special Relief Funds	Social	06.09.2018	31.10.2019	5000199005368	712,672.02	0	0
13.	Rural Livelihood Adaptation to Climate Change II (RLACC II)	GEF	Agriculture	15.12.2017	31.04.2021	555015501401	5,099512.54	64802.28	1.27%
14.	African Legal Support Facility (ALSF)	ALSF	Technical Assistance	09.03.2014	31.12.2018	ALSF/Grant/02/2014	651,856.49	100,000.00	15.34%
15.	ICT in Education	Korean Trust Fund	Social (Education)	28.06.2018	28.06.2019		309,742.48	0	0
Total							184,521,404.74		
Total Disbursement Ratio									15.9%

Pipeline Projects									
1.	Water and Sanitation Project for North and West Kordofan		Social Sector (Water and Sanitation)				22.155,000		
2.	Solar Powered Pumping for Irrigation	PBA	Energy				14.490,000		
3.	Elnefeidi Group	Private Sector	Agriculture				42,000,000		
PRIVATE SECTOR OPERATIONS									
1	DAL Group Food and Agriculture Program	Private Sector	Agriculture	13.12.2018			54,024,851.43	0	0
	Total of All Active Projects						238,546,256.17		

Appendix III. Key related projects financed by the Bank and other development partners in the country

On-going & Completed Donors Financed Projects - 2019				
Contract Name	Donor	Road Length (km)	Amount	Status
African Development Bank projects	AfDB	1260.88	511.18	
Wacha - Maji road	AfDB	175	22.71	Completed
Jima - Mizan road	AfDB	232	65.00	Completed
Mombasa-Nairobi - Addis Ababa Phase II	AfDB	303	85.00	Completed
Bedele - Metu road	AfDB	112	41.06	Completed
Mombasa - Addis Ababa Phase III	AfDB	200	105.00	On-going
Bedele - Metu Cont. 1	AfDB	61	41.06	On-going
Modjo-Hawasa Express way (Modjo - Meki)	AfDB	112.88	84.08	On-going
Ethiopia Integrated Transport Program Phase	AfDB	65	67.27	on-going
APL II	World Bank	887	USD 372.80 m	
Assela - Dodola - Junction	World Bank	100		Completed
Dodola Junction - Goba	World Bank	130		Completed
Adiabun-Shire	World Bank	92		Completed
Nekempte - Mekenajo	World Bank	127		Completed
GobGob - Gashana	World Bank	86		Completed
Gashana - Woldia	World Bank	106		Completed
Magna - Mechara	World Bank	120		Completed
Assosa - Blue Nile - Guba	World Bank	126		Completed
APL III	World Bank	579	235.80 million USD	
Gondar-Debank	World Bank	107		Completed
Gedo - Nekempte	World Bank	134		Completed
Aposto Irbamoda	World Bank	94		Completed
Irbamoda - Wadera	World Bank	109		Completed
Wadera - Negele	World Bank	65		Completed
Yalo - Nehile	World Bank	70		Completed
APL IV	World Bank	395	263.30 million USD	
Mekenajo - Dembi Dolo	World Bank	181		Completed
Welkite - Hossaina	World Bank	125		Completed
Ankober - Awash Arba	World Bank	89		Completed
RSDF4	World Bank	435	415.0 million USD	
Ambo - Weliso	World Bank	64		On-going (Terminated)
Debre Birhan - Ankober	World Bank	42		On-going
Kombolcha - Bati - Mille	World Bank	130		Completed
Mizan - Dima	World Bank	92		On-going
Konso - Yabelo	World Bank	107		On-going
Road Sector Support Project	World Bank		SDR 208,500,000	
Nekemte-Bure	World Bank	258		On-going
Expressway Development Support Project	World Bank		US 370,000,000	
Lott III Zeway - Arsi - Negelle	World Bank	57		On-going
Dembi - Bedele	BADEA	62	9.20 million USD	Completed
Metu - Gore	OPEC Fund	26	4.80 million USD	Completed
Gore - Gambella	BADEA	145	13.00 million USD	Completed
Azezo - Gint - Metema	OPEC Fund		15.00 million USD	
	BADEA		13.00 million USD	
	OFID	184	15.00 million USD	Completed
	SAUDI Fund		18.00 million USD	
Assosa - Kurmuk	BADEA	100	6.50 million USD	Completed
	SAUDI Fund		6.50 million USD	
Road Sector Development Support Program Phase II-Project	NDF	FS / DD	10.00 million EURO	
Nekempte - Bedele	Kuwait Fund		30 million Kuwait Dir	
	BADEA	96	10.00 million USD	Completed
	OFID		15.00 million USD	
Wukro - Zalambessa	Kuwait Fund	100	30 million Kuwait Dir	Completed
Dejen - Lumame	Japan	29	4,158,000,000 Yen	Completed
Gedo - Menebegna	Saudi		25.00 million USD	On-going (Terminated and restarted with new contractor)
	Abu Dhabi	80.5	10.00 million USD	
	BADEA		10.00 million USD	
Dessie - Kutaber	Kuwait Fund	67.5	30 million Kuwait Dir	Completed
Arbereketi - Gelemso (Contract 1)	Saudi	57.5	12 million USD	On-going
	OFID		20 Million USD	
Arbereketi - Gelemso (Contract 2)	BADEA	45.9	10,000,000 USD	On-going
	OFID		23,000,000 USD	
Shambu - Bako	BADEA	60.2	13,000,000 USD	On-going
	OFID		25,000,000 USD	
Dire Dawa - Dewele	China	220	USD 187,000,000.00	Substantially completed
Arsi Negele - Hawassa	China	52	USD 171,080,321.74	On-going
Lot 2: Meki - zeway section	KOREA	37	USD 82,343,823.00	On-going

Appendix IV. Map of the Project Area



AFRICAN DEVELOPMENT FUND

BOARD OF DIRECTORS

Resolution N° F/Z1/2020/01

Adopted by the Board of Directors on a lapse-of-time basis, on 13 January 2020

Multinational: Grant to the Federal Democratic Republic of Ethiopia to finance part of the costs of the Feasibility Study for the proposed Standard Gauge Railway (SGR) connecting Ethiopia and Sudan

THE BOARD OF DIRECTORS,

HAVING REGARD to: (i) Articles 1, 2, 11, 12, 14, 15, 16, 26 and 30 of the Agreement Establishing the African Development Fund (the “Fund” or “ADF”); (ii) the Report on the Fourteenth General Replenishment of the Resources of the Fund (“ADF-14”); (iii) the applicable ADF-14 Country Resource Allocation; (iv) the Guidelines for the Financing of Multinational Operations; (v) the Strategic and Operational Framework for Regional Operations; and (vi) the appraisal report contained in document ADF/BD/WP/2019/219/Approval (the “Appraisal Report”);

NOTING the availability of sufficient resources to enable the Fund to commit the amount of the Grant;

DECIDES as follows:

1. To award to the Federal Democratic Republic of Ethiopia (the “Recipient”), from the resources of the Fund, a grant of an amount not exceeding the equivalent of Eight Hundred and Sixty-Three Thousand Units of Account (UA 863,000) (the “Grant”) to finance part of the costs of the Feasibility Study for the proposed Standard Gauge Railway (SGR) connecting Ethiopia and Sudan;
2. To authorize the President to conclude a protocol of agreement between the Fund and the Recipient (the “Protocol of Agreement”) on the terms and conditions specified in the General Conditions Applicable to Protocols of Agreement for Grants of the African Development Fund and the Appraisal Report;
3. The President may cancel the Grant if the Protocol of Agreement is not signed within ninety (90) days from the date of approval of the Grant by this Board; and
4. This Resolution shall become effective on the date above-mentioned.