REPUBLIC OF SUDAN

MDTF GRANT

OF US$ 48.50 MILLION

TO THE GOVERNMENT OF SUDAN

FOR A

NATIONAL EMERGENCY TRANSPORT REHABILITATION PROJECT

FINAL PROJECT PROPOSAL

August 12, 2006

Transport Sector Group
Africa Region

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**NATIONAL EMERGENCY TRANSPORT REHABILITATION PROJECT**  
**FINAL PROJECT PROPOSAL**

<table>
<thead>
<tr>
<th>Recipient:</th>
<th>Government of Sudan</th>
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<tbody>
<tr>
<td><strong>Brief Description:</strong></td>
<td>NETREP consists of three components: Component 1 covers the railway related activities and some interventions to promote multi-modal operations and improve sector management that will be led by the MTRB; Component 2 focuses on activities related to river transport, and Component 3 includes accessibility improvements, mainly roads in the Three Areas. Component 1 will be implemented by the Sudan Railway Corporation, Component 2 by the River Transport Corporation and Component 3 by the National Highway Authority. The Sudan Port Corporation will assist RTC with the physical parts of river port development activities and the Inland River Navigation Department with the studies relating to dredging and hydrographic survey of the White Nile.</td>
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<td><strong>Beneficiaries:</strong></td>
<td>Transport Industry and Users of Road, Rail and Waterway transport facilities throughout Sudan</td>
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| **Project Development Objective:** | To facilitate the country’s economic and social recovery through improved physical access to goods, markets, and administrative and social services. The main focus is on key trade routes linking the North and the South with Port Sudan: the Wau-Khartoum-Port Sudan corridor and the Port Sudan – Kosti –Malakal – Juba corridor, as well as improving rural access in the three areas. The objectives are expected to be achieved by:  
(i) removing key transport bottlenecks that seriously hamper trade and recovery efforts;  
(ii) providing equipment and technical assistance related to operation, maintenance and supervision of works, thereby building capacity; and,  
(iii) assisting in improving the capacity of the MTRB to plan and manage the sector thereby contributing to productivity improvements.  
The removal of key transport bottlenecks and the isolation of Three Area communities will immediately promote economic integration and facilitate trade, delivery of humanitarian aid, and all reconstruction efforts. |
| **Location:** | North and South Sudan |
| **Total Project Cost:** | US $ 142.18 million. |
| **Grant Amount:** | US $ 48.50 million. |
| **Implementing Agencies** | Component 1: Sudan Railway Corporation (with the Ministry of Transport leading activities relating to multi-modal operations and capacity building in sector management). Component 2: River Transport Corporation (using the Sea Port Corporation to implement port construction works and the Inland River Navigation Department to oversee the studies on dredging and hydrographic surveys.) Component 3: National Highway Authority (including assisting the states in the Three Areas to define their Rural Accessibility Improvement Plans). Coordination will be by the MTRB through its Planning Unit which will prepare regular progress reports. |
| **Implementing Period:** | October 2006 to December 2009 |
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| **Project Appraisal Document:** | This Project has been prepared in accordance with the World Bank's Emergency Recovery Assistance procedures (Operational Policy 8.50). As such, this Final Project Proposal provides the information normally available in a Project Appraisal Document for such projects, adapted to follow the MDTF proposal outlines. |
National Emergency Transport Rehabilitation Project

(Exchange Rate Effective May 15, 2006)

Currency Unit  =  Sudan Dinar (SD)
SD 225  =  US$1

Abbreviations and Acronyms

CBTF  Capacity Building Trust Fund (administered by the UN)
EOI   Expression of Interest
ESAF  Environmental and Social Assessment Framework
FMR   Financial Management Report
GDP   Gross Domestic Product
GNU   Government of National Unity
GOSS  Regional Government of Southern Sudan
ICB   International Competitive Bidding
IDPs  Internally Displaced Persons
IFC   International Finance Corporation (World Bank Group)
IRND  Inland River Navigation Department
CPA   Comprehensive Peace Agreement
IRR   Internal Rate of Return
JAM   UN/WB Joint Assessment Mission
JTF   Joint Transition Fund
MA    Monitoring Agent
MDTF N Multi-Donor Trust Fund for GNU
MDTF S Multi-Donor Trust Fund for GOSS
MIM   Master Implementation Manual
MFNE  Ministry of Finance and National Economy
MTRB  Ministry of Transport and Roads & Bridges
NCB   National Competitive Bidding
NETREP National Emergency Transport Rehabilitation Project
NGO   Non-Governmental Organization
NHA   National Highway Authority
OC    Oversight Committee
PIM   Project Implementation Manual
PMT   Project Management Team(s)
PP    Procurement Plan
QCBS  Quality and Cost-Based Selection
RTC   River Transport Corporation
SBD   Standard Bidding Documents
SC    Sudan Consortium
SRC   Sudan Railways Corporation
SPC   Sea Ports Corporation
SPLM  Sudanese People’s Liberation Movement
TAF   Technical Assistance Facility
TOR   Terms of Reference
TS    Technical Secretariat
UN    United Nations
UNDB  United Nations Development Business

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A. STRATEGIC CONTEXT AND RATIONALE

1. INTRODUCTION

1. With an area of 2.5 million square kilometers, Sudan is the largest country in Africa and the ninth largest country in the world. Its vast area ranges from stretches of tropical forests, marshlands in the southern part of the country to mountains, savannah and deserts elsewhere. It shares its extensive borders with nine countries and contains 60 percent of Africa’s irrigated lands. The diversity of Sudan’s geography is also reflected in its people. Sudan’s population of approximately 32 million is multi-cultural, multi-ethnic, multi-religious and multi-lingual with 134 listed languages. But although well endowed with natural resources, Sudan’s economic performance has been substantially below its potential.

2. The civil war lasting more than 20 years and the related governance failures have adversely affected Sudan’s development prospects. In parts of the country, conflict and internal displacement of civilians have caused food insecurity, and continue to cause suffering and loss of life. Against this background, Sudan remains one of the poorest countries in the world, with widespread poverty and a weak and uneven economic base and infrastructure. Per capita income for the year 2000 was about US$330. Although rich in natural resources, Sudan has yet to find a successful formula for equitable sharing of resources and power across the country. Factors of ethnicity and religion exacerbate the situation. Together these have contributed to discontent; in addition, subsidiary conflicts have proliferated, many of them inter-tribal and land-related, and often exacerbated by land degradation, inequitable development and poverty.

3. The historic Comprehensive Peace Agreement (CPA) signed in Nairobi on January 9, 2005, between the Government of Sudan and the Sudanese People’s Liberation Movement (SPLM) marks the culmination of 2 ½ years of negotiation which includes a set of protocols covering, inter alia, power and wealth sharing agreements. The ‘Pre-Interim Period’ of six months started when a new Government of National Unity was established late 2005, and this will be followed by a six year Interim Period, leading to a referendum where the people of Southern Sudan will vote whether to secede or remain within the Republic of Sudan. In addition, a key feature of the CPA is the establishment of the Government of Southern Sudan (GoSS) with extensive autonomy. The CPA also includes special provisions for Abyei, Southern Kordofan and Blue Nile (referred to as the Three (transition) Areas).

4. Following the signing of the Darfur Peace Agreement (DPA) by the GNU and the Sudan Liberation Movement (SLM) in May 2006, the rapid initiation of recovery, reconstruction and development efforts in Darfur will be critical to sustain and consolidate peace. The DPA provides for a separate post conflict needs assessment, and a donors’ pledging conference planned to take place in October 2006. Darfur clearly poses its own unique and very difficult challenges in the transport sector. Given the complexities and breadth of needs, it was not possible to address specific transport needs in Darfur under this operation. Once there is specific Darfur Window within the national MDTF, and funds start to flow after the Donor conference, the time would come for a specific transport operation for Darfur to start disbursing. Identification should take place as part of the Joint Needs Assessment (JAM) for Darfur. This particular project contains no activity in Darfur.

2. THE INTERNATIONAL RESPONSE: THE JAM INFRASTRUCTURE NEEDS ASSESSMENT

5. Between January 2004 and March 2005, the Bank co-led (with the UN) a Joint Assessment Mission (JAM), covering eight thematic sectors. The JAM synthesis report: “Framework for Transition, Reconstruction
and Poverty Eradication,” was completed in March 2005. The Report outlines the reconstruction and development needs for Sudan over the six year Interim Period, as well as a Monitoring Framework that reflects policy reforms and commitments made by the government, which are needed to implement the Comprehensive Peace Agreement (CPA). The Report, presented at an April 2005 Donors’ Conference in Oslo, raised US$2.0 billion in pledges for 2005–2007.

6. To report on progress on policy commitments and to renew financial pledges, a twice-yearly Sudan Consortium meetings are held. The first SC meeting took place in Paris on March 9 and 10, 2006. The broad conclusion was that progress is being made in implementation of the CPA, although there have been delays. The centrality of poverty eradication and the MDGs was reaffirmed, and donors also reaffirmed the levels of financial pledges made at the 2005 Oslo Donors’ Meeting. Important recommendations relevant to transport were (i) the creation of a Joint Coordinating Committee of the Government of National Unity and GOSS for the purposes of information sharing on common areas of interest and decision-making on matters relating to, among others, clarification of roles and responsibilities in the sector and between the two parties; and (ii) preparation of a six months action plan.

7. The CPA specified that two Multi-Donor Trust Funds (MDTFs) be established to facilitate the coordination of external donor financing of Sudan’s reconstruction and development needs as laid out in the JAM. One fund for the new National Government (NG) for war-affected areas in the north and the transition zones has been established, and one for the government of Southern Sudan (GoSS). The MDTFs are operational and will continue operation through the six years of the Interim Period. MDTF-financed activities would be within the context of a unified budget and a coherent public expenditure process. Approximately US$500 million was pledged in Oslo toward the two Trust Funds, nearly all of which has been formally committed over 2005-2007. After considering different options, the GoS and the SPLM requested the World Bank to be the Administrator of both MDTF.

8. The two trust funds have a common governance structure. The World Bank as Administrator of the MDTFs carries sole fiduciary responsibility. It is managing a Technical Secretariat (TS), which receive and reviews proposals and make recommendations to the Oversight Committee (OC) regarding allocations of resources. The OC comprises representatives of the World Bank, the UN, the respective governments, and contributing donors, and has the authority to approve projects for funding.

3. KEY DEVELOPMENT ISSUES

9. The nature of transport demand in Sudan following peace will differ from the normal situation as demand will not only be determined by ordinary production and consumption but also by the needs of (i) peace keeping operations; (ii) the distribution of relief goods; (iii) the return of internally displaced persons; and (iv) urgent rehabilitation needs.

10. More generally, the transport development activities need to contribute to the cohesion of the country. These other sources of demand will be of overriding importance and the starting point to the identification of projects in the sector in the short to medium term.

11. Another starting point for identifying and addressing key transport sector issues is by looking at the various components, which have to be in place to ensure a supply of transport service: (i) a policy framework; (ii) a legal and regulatory framework; (iii) the operators; and (iv) infrastructure, including the capacity to develop and manage this infrastructure.
12. In the North Sudan, the four components referred to above are functioning, although reforms are required. The development agenda is the conventional one facing the infrastructure sector of any country, viz. preservation of infrastructure, development of capacity and systems, and reform to improve safety, security and performance. Because of the war and isolation, the needs in this regard are larger than otherwise would have been the case, but the needs are nevertheless conventional, unlike in the South Sudan or Darfur, where the four components are existent but embryonic or dysfunctional.

13. In the Three Areas and Darfur, the road and rail infrastructure is poorly developed and what is there is in poor condition and/or damaged. The lack of connectivity to the paved roads and rail network are limiting transport operations. The regulatory system, which is part of the national system, is also functioning inadequately.

14. The GNU restructured the transport sector recently by amalgamating the Ministry of Transport (MOT) and the Ministry of Roads and Bridges (MRB). The responsibility for Civil Aviation was moved to the President’s Office. The new Ministry of Transport, Roads & Bridges (MTRB) is responsible for sector policy and oversight over sector organizations under its auspices. The Minister has a State Minister as deputy and all public corporations in the transport sector (except Civil Aviation Authority) report to him including Sudan Airlines, Sudan Railways Corporation, National Highway Authority, River Transport Corporation and Sea Ports Corporation. The Under-secretary is responsible for planning/coordination, financial affairs and administration of the ministry. The Ministry of Transport and Roads of GOSS operates independent of MTRB within the framework of the CPA. Meetings at ministerial and technical levels however take place to facilitate coordination of their activities and also to further the implementation of the provisions of the CPA.

15. In Annex 4, a detailed review is presented of the existing transport sector situation that provides the background for identifying the key focus of this project. Based on this analysis, the key issues for the sector are summarized below.

**Road Sector**

16. The key road sector issues may be summarized as follows:

(i) Inadequate funding for road maintenance and lack of cost recovery leading to loss of road assets;
(ii) Inadequate enforcement of Axle Loads restrictions which accelerates road deterioration;
(iii) The extreme low density of roads per km square in war-affected areas, and the very poor quality of major secondary roads which together cause isolation and creates and sustains poverty; and
(iv) Lack of clarity in the roles and responsibilities for management of national roads in the South. Delegation of this responsibility by GNU to the GOSS would at least require changes to the law empowering NHA.

**Railway Sector:**

17. For this sub-sector, the key issues are:

(i) Shortage of funds for spare parts resulting in inadequate maintenance and replacement of assets.
(iii) Reduced availability and reliability of rolling stock owing to the above.
(iv) Problems exacerbated by poor track conditions, also caused by shortages of funds for renewals.
(v) Reduced revenue owing to lower freight throughput.

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2 Abyei, Southern Kordofan, and Blue Nile
(vi) High expenditure on staff.
(vii) Competition from road traffic particularly on the core Port Sudan to Khartoum route and inability of SRC to complete.

Inland Waterways:

18. The key issues are:

(i) Lack of clarity in the sharing of responsibilities in the Power Sharing Agreement: inter-state waterways transport is a national power, while river transport is a concurrent power. The interpretation of this is not straightforward. The infrastructure (e.g. dredging of and navigation aids on the White Nile) may be a national responsibility, whilst the concurrent power refers to the regulation of operators, and perhaps operations. However, no reference is made to river ports. At the March 2006 Sudan Consortium Meeting in Paris, both MTRB and GOSS reported that they will establish a Joint Coordinating Committee to resolve issues such as this and share information on their investment activities. The MTRB is in the process of convening the first meeting of this Committee.

(ii) The need for dredging and navigational aids in order to realize the comparative cost advantages of river transport.

(iii) Based on earlier studies carried out during the 1980s and before it is possible to obtain an impression of the river, and its depth as well as the location of shoals, rocks and other bottlenecks. These studies are now dated and the passing of time and the nature of rivers imply that it is necessary to fully map out the river again.

(iv) The number and demographic composition of RTC’s river captains: the complexity of the Nile River (particularly the Sudd) and the absence of navigation aids along the route necessitate highly skilled river captains to negotiate the passage. Due in part to the war, there has been no comprehensive program of training for new captains, the result being a heavy reliance on older experienced captains who are nearing retirement.

Transport Services.

19. The key issues may be summarized as:

- Motor carriers, including owners of warehouses, in Sudan fail to act as effective intermediaries in transferring ownership rights to goods from shippers to consignees and passing on loss and damage risks. Thus, risks associated with the safe and secure delivery of cargos remain higher than they need to be, with adverse consequences for transaction costs.

- One way to increase the nation's freight hauling capacity is to use its transport infrastructure in a coordinated way. Sudan is unique among developing countries in that it has in place the basis for an extensive multimodal transportation service network over which truck/air/water/rail services might be offered under a single bill of lading under the control of a single multi-modal transport provider.

- Each individual agency of government has developed its own unique method of procurement and spot buying method and each applies these methods without oversight. Procurement methods vary widely among agencies in their degree of transparency, openness and contestability. This situation is claimed to have resulted in the trucking and bus industry in the North becoming corrupted.

- The taxes and fees paid on imports are the primary instruments, which the government uses to raise revenue, and carriers, freight forwarders and customs brokers operate as the primary collection agents for the government. During the years of conflict, taxes and levies imposed on imports and other transported products continued to increase, with the results that Port Sudan has become the “most expensive port on the Red Sea.”
Public transport within large cities is poorly regulated. For an operator to enter the market for intra-city bus services a license is required and, in some cases, an operating franchise agreement from local municipal governments must also be obtained. The award of service contracts by local government effectively constitutes a franchise, and the requirements imposed on the franchisee effectively constitute the public service obligation of the operator. Passenger facilities are basic and quite crowded, especially during rush hours. Schedules are unpublished and subject to change without notice.

4. RATIONALE FOR MDTF INVOLVEMENT

20. The MDTF for the North is a collaborative framework which brings together several of Sudan’s key development partners and provides a one stop point of contact and information on the reconstruction and development effort for those of its partners providing assistance outside of the MDTF framework. It is therefore an efficient way for Sudan to ensure good coordination of the development assistance it receives. For the transport sector in particular, it is a good way for the Government to make use of this assistance given the huge financing gap in the sector in the short to medium term.

21. The Bank as the administrator has the experience and expertise to support transport sector operations financed through MDTF and through the regular GNU budget. By sharing international experience and best practices based on its staff’s considerable work with transport infrastructure projects and institution building in conflict-affected areas, the Bank could make a difference in a challenging sector. The reconstruction efforts through MDTF put a premium on early, but selective engagement (Three Areas), flexibility in design and implementation (programmatic approach), coordination with donors and other partners (SC), and close monitoring and evaluation using the JAM framework.

22. Other factors:
   (a) Once operational, projects with Bank involvement often attract resources from other development agencies as well as Government budgets, and this could assist in a utilization that is more efficient and in coordination of investments and technical assistance in the sector.
   (b) In contrast to the financing offered by many other donors, NETREP would be implemented by Sudan through the country’s own ministries and agencies, which would better ensure ownership and build institutional capacity, both of which are crucial for the country’s longer-term development. In this case, the strategy would be to build on existing capacity by establishing dedicated project management teams. The project management teams are viewed as necessary because of the large financing requirements, and as a means to build capacity more focused and effectively.
   (c) A MDTF supported NETREP would provide financing to the Government for rehabilitative works combined with policy advice, institutional development and reform assistance, all of which are essential for long-term sustainability of investments in the road sector. Focus should also be placed on increasing harmonization with other donors, for example CIDA and USAID and, to the extent possible, laying the foundation for longer-term engagement.
   (d) Components have been defined in an effort to allow local contractors, consultants and suppliers to participate fully in implementation (spot improvements, labor intensive works).
   (e) The road sector is critical in the Three Areas and other marginalized areas of Sudan. Lack of access to the main road network and poor internal mobility due to lack of basic access roads isolates large segments of the population from markets, social services, and job opportunities. The high cost of transport and goods as well as lack of opportunities create and sustain poverty, and addressing rural
accessibility is a pre-requisite for economic development and a key item in any strategy addressing poverty.

23. The quality of sectoral analyses underpinning projects is important. For emergency operations, hasty needs assessments and poor understanding of how the sector works are often the only basis for early interventions. In many instances, these operations then suffer subsequent delays, must be restructured, or have their implementation periods extended to achieve a reasonable set of objectives. For the proposed NETREP, detailed assessment of the Sudan transport sector (including financial and procurement assessments) over a one-year period has been available for structuring the NETREP.

24. Early assessments and emergency operations persistently misinterpret the absorptive capacity of post-conflict administrations. The inclination is to give benefit of the doubt under such circumstances, although absorptive capacity for aid is typically well below expectations. NETREP is addressing this by keeping the structure simple: (i) three parts implemented independently with ability to shift funds to agencies that are performing better; and (ii) involving consultants to assist ministries in design, tender documents, bidding-award, and implementation supervision including processing of all payments.

25. Needs assessments sometimes lack ownership by a new administration. When this is the case, they should be revalidated to ensure priorities are aligned with emerging changes on the ground, and associated costs revisited before commitment to ensure accuracy. In this case, the investments proposed in NETREP were identified in the JAM with involvement of counterparts, and subjected to validation during the preparation stage. This should provide a better foundation for agreement on priorities and components.

26. The effectiveness of aid depends on sector policies and institutions, the better the policies the larger the potential for growth. The project design reflects this and integrates policy advice and institutional assessments (and training) in the proposed components. In this emergency operation an attempt has been made to strike a careful balance between works and results on the ground, and essential policy advice that will add value without generating resistance from beneficiaries.

27. Donors often bypass weak government capacity by contracting out services directly and providing assistance in kind. Bypassing local institutions is usually more expensive and can build resentment when aid money allocated to the country is used to fund firms from donor countries, international agencies and non-governmental organizations (NGOs), particularly when they have not been selected through competitive or transparent processes. The strategy for NETREP is to begin building capacity early on during implementation, while addressing the critical short-term needs through temporary arrangements. This pragmatic approach should enable a quick start to components and facilitate disbursements.

28. Recent experience in other settings has highlighted the importance of professional due diligence on projects prepared and implemented by professionals in roads, railway and river transport sectors. To prevent delays in implementation, consideration should be given to sequencing straightforward subprojects for early implementation, and allowing additional time to prepare more complex components as part of project implementation. Bringing in the services of international engineering firms to prepare and supervise technically challenging investments after project launch would be a necessity.

29. Experience has also shown that it is difficult to predict project costs in areas where prices are affected by security risks, difficult mobilization, mine clearance actions, and supply/demand imbalances. This is especially true for materials that are now subsidized (for instance, fuel, cement and bitumen), or when supplies are subject to disruption. In this case, a flexible design that allows the project’s scope to be reviewed as part of an Early Implementation Assessment (after about 12 months) was adopted, when contract rates and other costs and implementation difficulties are better known. This is something that will be reflected by providing for rates adjustments, as applicable, in contracts under the project.
30. A focus on implementation arrangements during preparation is important. In the Project Management Team (PMT) model utilized, staff is seconded on a full-time and/or part-time basis from various departments within the implementing agency to work in dedicated PMTs, which receive support from outside consultants when needed. High level support has been obtained to this approach and the head of each of the PMT has been appointed.
B. DETAILED PROJECT DESCRIPTION

1. INTRODUCTION

31. The proposed National Emergency Transport Rehabilitation Project – NETREP - has been flexibly designed to permit rapid responses to changing circumstances on the ground, and to allow adjustments to the relative size and scope of components as implementation progresses. NETRP complements the Sudan Emergency Transport and Infrastructure Development Project (SETIDP) earlier approved by the IOC and now under implementation. SETIDP is focused on meeting critical transport and basic urban infrastructure needs in Southern Sudan. Implementation of the proposed project is expected to trigger transport cost reductions that will have a national impact on the cost of imported goods. It is expected to also facilitate export activities and north-south movement of people and goods within Southern Sudan.

2. PROJECT DEVELOPMENT OBJECTIVE

32. The development objective of the proposed project is to facilitate the country’s economic and social recovery through improved physical access to goods, markets, and administrative and social services. One focus is on two key trade routes linking the North and the South with Port Sudan, the Wau-Khartoum-Port Sudan corridor and the Port Sudan – Kosti –Malakal – Juba corridor, and the other is on addressing the isolation of communities in the Three Areas, a key impediment to recovery and development.

33. To achieve the development objective, the project would assist in:

(i) removing key transport bottlenecks that seriously hamper trade and recovery efforts;
(ii) providing equipment and technical assistance related to operation, maintenance and supervision of works, thereby building capacity in management, implementation and subsequent operation and maintenance; and,
(iii) strengthening multi-modal operations and improving sector management capabilities of the Government.

34. Through the removal of key transport bottlenecks and by addressing isolation of communities in marginalized areas, the project would promote internal linkages, economic integration and facilitate trade, delivery of humanitarian aid, and reconstruction efforts in all sectors. NETREP would also restore normal traffic operations on the key rail and waterway arteries, facilitating movements on the key import/export links. Additionally, the civil works, equipment and subsequent operation and maintenance financed through the project will provide opportunities for employment through the engagement of the local population in all rehabilitation and subsequent maintenance activities.

35. The project is an emergency operation because it seeks to restore sector assets and improve their productive levels of service within a very short time frame. Given the project’s emergency nature and short duration, outputs, rather than outcomes, should be used to measure success in achieving the physical objectives. These outputs will include the number of and timely rehabilitation of critical bottlenecks, the development of policies and programs, and the provision of essential spare parts and equipment for effective operations.

36. NETREP is fully consistent with the JAM proposed Action Plan overall and the sector specific infrastructure JAM assessments. These emphasized the need for rapid rehabilitation of critical infrastructure services and institutional capacity building as pre-requisites for recovery and long-term development.
3. PROJECT COMPONENTS

Introduction

37. NETREP consists of three parts covering physical interventions in three sub-sectors: Component 1 comprises railway related components; Component 2 includes sub-projects related to river transport, in particular the Kosti - Juba corridor; and Component 3 deals with road sector related activities. Components 1, 2 and 3 would be implemented independently by the SRC, RTC and the NHA respectively. Included in Component 1 also are activities related to improving (i) multi-modal operations; (ii) the capacity of the MTRB to manage the sector; and (iii) establishment of an Environmental and Social Safeguards Unit and conduct of a Sectoral Environmental and Social Assessment Framework (ESAF). The Sea Port Corporation (SPC) will assist RTC with port development activities (civil works) and the Inland River Navigation Department (IRND) with oversight of the planned dredging and hydrographic survey studies. In addition and related to NETREP, there is support proposed under the Technical Assistance Facility (TAF) to carry out a Transport Master Plan where new policy directions will be defined and the supportive institutional, legal and regulatory frameworks and development plans will be elaborated. This activity would be managed by MTRB with close involvement of the above sector agencies. The MTRB through its Planning Unit will coordinate project implementation and monitor progress with implementation.

38. The project is to be implemented in phases (programmatic approach), with the commencement of each phase dependent upon funding availability and readiness for implementation. This project description covers what is to be financed under Phase 1. The activities, costs and implementation period for Phases 2 and 3 as presented below are tentative and subject to change. When MDTF funding for these phases becomes available, the components will be firmed-up and presented to the OC for financing approval.

Component 1: Rehabilitation of critical rail infrastructure and services (US$41.95 million)

39. This component comprises of: (i) Rehabilitation of Babanousa-Wau Railway Line; (ii) rehabilitation of Bridge Number 353 on the Khartoum to Port Sudan rail section; (iii) rail connections to the container depot in the Damadama area of Port Sudan; (iv) improving rail connections at existing and new Port at Kosti; (v) studies on enhancing private sector participation in railway operations; (vi) support for project management; (vii) enhancement of sector management capacity; and improving inter-modal operations at Port Sudan.

Component 2: Improvements to River Transport Services (US$10.96 million)

40. This component comprise of: (i) Provision of Equipment in Support of Port Operation; (ii) concessioning of the new port at Kosti; (iii) study to establish emergency dredging and navigational needs; and (iv) support for project implementation including targeted institutional development and capacity building.

Component 3: Road Improvements with focus on the Three Areas (US$89.27 million)

41. The component has the following elements: (i) program of spot improvements on Kadougli to Kaouda road (135 km) and section 2 of the E’ Damazin to El Kurmuk road (55km) and Hamashkraid to El Gahwa road (90 km); (ii) detailed design of Abu Jubayah to Talodi to Kadugli road (310 km), Damazin to Geissan road (160 km) and Toker to Garora road (215 km); (iii) feasibility studies and detailed design of Geissan to Kurmuk road (160 km), Damazin to Renk road (200 km), Kadugli to Heglieg road (170 km), and Muglad to Abyei road (160 km); (iv) project management and institutional development and capacity building including (a) carrying out of various studies on sustainable road sector financing, road safety and axle load control, (b) establishment of pavement management system, (c) improvements to materials testing laboratory, and (d) training, workshops, study tours and targeted TA.
4. PROJECT COSTS AND FINANCING

42. The estimated cost of the NETREP’s Phase 1 is US$ 142.18 million. Of this amount, approximately US$41.95 million covers costs related to Component 1 US$10.96 million for Component 2 whilst Component 3 is estimated at US$89.27 million (see Table 1).

43. In accordance with the Financing Parameters agreement between the MDTF and GNU, the NETREP should be financed by both on a ratio of one third MDTF and two third GNU. With MDTF having committed to contributing US$40 million to the cost of NETREP, the planning envelope for NETREP would have been US$120 million. However, the GNU has indicated its intention to deviate from the financing parameter and contribute only US$50 million with indication that an additional US$ 10 million would likely be available. As a result, there is a financing gap of about US$ 41.57 million. This shortfall can be closed if the MDTF contribution was to increase to US$ 48.50 million and the GNU was to contribute US$ 93.68 million roughly corresponding to the agreed Financing Parameter.

Table 1: Project Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Total</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td>41.95</td>
<td>40.00</td>
<td>TBD</td>
<td>81.95</td>
<td>Extent of phase 2 and 3 depends on success in attracting private sector investors.</td>
</tr>
<tr>
<td>Component 2</td>
<td>10.96</td>
<td>-</td>
<td>-</td>
<td>10.96</td>
<td>Government has indicated that it will seek bilateral funding for implementation of dredging and related works recommended by studies to be carried out during Phase 1.</td>
</tr>
<tr>
<td>Component 3</td>
<td>89.27</td>
<td>51.49</td>
<td>137.02</td>
<td>282.78</td>
<td>Extent of phase 2 and 3 depends on funding availability and extent of interest by private sector and donors.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>142.18</strong></td>
<td><strong>91.49</strong></td>
<td><strong>137.02</strong></td>
<td><strong>370.69</strong></td>
<td></td>
</tr>
</tbody>
</table>

Annexes 2 and 3 provide a more detailed cost estimate for the project. A Projected disbursement schedule for the MDTF grant is presented in Annex 7 (Financial Management and Disbursement).

44. Provision is made for retroactive financing from the grant for eligible expenditures made after appraisal.
C. IMPLEMENTATION ARRANGEMENTS

Institutional and implementation arrangements

45. The strategy is to seek to ensure local ownership and strengthen institutional capacity by financing operations that are implemented by Sudanese institutions. The proposed management structure for the NETREP would adopt the PMT model, whereby staff from various departments within the implementing ministry and its agencies is seconded on a full-time and/or on a part-time basis to work in the PMT, with support from outside consultants as and when needed.

46. There will be three PMTs working in parallel, one at the Sudan Railway Corporation in Khartoum, the second at the River Transport Corporation located in both Khartoum and Kosti, and the third PMT would be located in Headquarter Office of the National Highway Authority in Khartoum, all agencies under the new Minister of Transport and Roads & Bridges. The PMT at the SRC would be responsible for implementing components and sub-projects in the railway sector. It will also administer the activities for which the MTRB, through its Planning Unit) will have technical oversight. The PMT at the RTC would implement sub-projects along the White Nile in the Kosti-Malakal-Juba corridor. NHA will be responsible for preparation and implementation of design and civil works under Part C. The MTRB would act as the coordinating agency responsible for budgeting, counterpart funding and any unidentified co-financing from bilateral donors. MTRB would also be involved in policy studies of overarching nature related to the project for example the maintenance financing study).

47. The PMTs would be responsible for managing all project activities under their respective jurisdictions, including contract management, supervision and quality control, reporting, and administration of project funds. Making payments to suppliers, consultants and contractors, and ensuring that funds are disbursed according to Bank guidelines and procedures will also be the responsibility of the PMTs. The PMT model will provide the skills needed for effective project implementation, and yet permit the reintegration of seconded staff into the respective agency’s structure at project completion.

48. The structure and staffing of the PMTs have been agreed with the MTRB, SRC, the RTC and NHA. In addition to Project Managers, PMT staff would include senior technical staff (engineers), procurement specialists, financial managers, environmental specialists, and administrative support staff. International experts financed under the project would support the PMTs on an as-needed basis. Initially, some of the experts would be available on a full-time basis to ensure appropriate fiduciary arrangements and that independent audits are in place. Provision of the necessary training in this respect would be included in such assignments. Funds would also be available for short-term professional training overseas where justified and for study tours.

49. The three agencies would also identify the project’s sub-components for which technical specifications or designs are available or can be produced at low cost locally so that procurement of goods and services as well as works could start as soon as the project is appraised. Project costs can be retroactively funded when the Oversight Committee of the MDTF approves the project and the grant agreement is signed provided correct procurement procedures are followed.

Specific Implementation Issues related to Component 1 – Improvement to critical rail infrastructures and services

50. SRC indicated that it would be possible to work on the first 130 km from Babanousa during the rainy season. Since this is the part of the BW railway that is probably clear of ordnance it will be the first section that is screened after the mine removal contract is finalised and the contractor is mobilised. Demining activities will be

51. SRC has proposed that for the BW railway (where about 60 km of track is missing) it would either provide rail as a contribution in kind by GNU from unused railway lines, or cascade rail from the main line after this is replaced by new rail it is presently purchasing with funds provided by GNU. In the case of the other railway components requirements for rail would be met by using used rail provided by SRC as a contribution in kind by GNU.

*Specific Implementation Issues Related to Component 2, Improvement to River Transport Services.*

52. RTC will implement the component but (i) will retain the services of SPC for the design and supervision activity related to a temporary port and container handling facility at Juba. This will be proof checked by a domestic consultant and (ii) will retain the services of the Inland River Navigation Department (IRND) of the MTRB to oversee the supervision of the dredging and hydro-graphic surveys.

*Specific Implementation Issues Related to Component 3, Road Improvements.*

53. NHA will implement all components and sub-components in a normal manner as for their regular activities. Designing and constructing or upgrading roads is their line of business, and a small PMT would be established for coordination and reporting purposes only.

54 *Implementation Period.* The project will be implemented over a period of 39 months with grant effectiveness planned for October 31, 2006. However, before then, the three implementing agencies have taken actions on procurement of works and priority studies, and may even disburse for services rendered for possible retroactive funding under the MDTF grant.

**Status of all required studies and technical assistance (as of July 2006)**

55. This is as follows:

<table>
<thead>
<tr>
<th>Descriptions of the studies or technical assistance required</th>
<th>Duration of studies, TA</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. De-mining of BW rail line</td>
<td>18 months</td>
<td></td>
</tr>
<tr>
<td>2. PSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Recruitment of procurement and financial management staff for PMT</td>
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<td></td>
</tr>
<tr>
<td>4. Recruitment of TA for Planning Unit in the MTRB</td>
<td></td>
<td></td>
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<tr>
<td>5. Sectoral ESAF study</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Letter of intent for engagement of UNOPS issued by SRC, draft MOA for engagement of UNOPS under discussion, draft RFP for demining contract under review. Specifications for equipments prepared and tender packaging under preparation as are all works drawings.

2. Draft ToR prepared

3. Job description ready, short-list using database from previous adverts for similar positions. This applies to all components.

4. ToR to be prepared

5. ToR prepared, EOI and RFP to be prepared
Component 2
1. Equipment for port operations
2. Study to determine emergency dredging needs.
3. Study of hydrographic survey and mapping
4. Concessioning of New Kosti Port

| 1. Specifications compiled and tender packages to be prepared. |
| 2. ToR being prepared. |
| 3. ToR to be prepared |

Component 3
1. Various feasibility studies
2. Works tenders.
3. Construction supervision services
4. TA to NHA
5. Study on sector financing
6. Pavement management

| 1. ToR and RFP prepared for use as appropriate. Design will be done in-house and by local consultants with quality control provided by TA to NHA. |
| 2. All three tender documents under preparation with first completed in August, next in September and last in October, 2006. |
| 3. Draft ToR and RFP prepared |
| 4. Draft ToR prepared, possible candidate identified for single source engagement. |

55. Copies of terms of reference for studies, design and construction supervision services, and other technical assistance services are in the Project Files.

2. PROCUREMENT ARRANGEMENTS

56. Procurement for this project will be carried out in accordance with the World Bank’s Guidelines: Procurement under IBRD Loans and IDA Credits, dated May 2004, Guidelines: Selection and Employment of Consultants by World Bank Borrowers, dated May 2004, and the provisions stipulated in the Grant Agreement. For each contract to be financed by the grant, the procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame are reflected in the Procurement Plan (PP). The PP will be updated periodically, as required, to reflect the actual project implementation needs and improvements in institutional capacity. A General Procurement Notice will be published in the United Nations Development Business (UN Development Business) upon completion of appraisal, and will be revised after the project is approved by the OC.

57. Assessment of the procurement capacity of the implementation agencies and attendant needed procurement arrangements is contained in Annex 5. Procurement activities will be carried out by the three PMTs. The SRC-PMT in Khartoum will focus on railway sub-projects in the Port Sudan – Khartoum – Wau corridor, the RTC-PMT in Kosti will focus on sub-projects in the White Nile corridor, while NHA would be responsible for all procurement related to the road sector.
Procurement risk assessment
58. The procurement risk is rated as high for SRC and RTC and average for NHA. This will be mitigated by the recruitment of procurement specialists into the respective PMT to provide guidance and training on procurement activities over a period of one year.

Procurement Plan
59. Draft Procurement Plans which provides information on procurement packages and methods are being finalized SRC, RTC, NHA and these will be completed by negotiations after which they will be available at the PMTs, in the Project Files, and on the Bank’s external website. The Procurement Plan will be updated as required to reflect actual project implementation and improvements in institutional capacity.

Frequency of Procurement Supervision
60. In addition to the prior review of contracts procurement supervision will be carried out from Bank offices in Khartoum, including by the Monitoring Agent engaged by the Bank to monitor all MDTF project activities. Where security conditions make travel to project sites impossible for international Bank staff, the Monitoring Agent will employ an independent supervising agent operating in Sudan to support the Monitoring Agent in carrying out its supervision function. In addition, the Bank will rely on the reports of consulting firms, as well as on reports from a Bank Staff or consultants working in Sudan.

3. FINANCIAL MANAGEMENT AND DISBURSEMENT

61. This project has been assessed as a high risk project, given the weak institutional arrangements, the regulatory environment, the lack of capacity and the absence of financial rules and regulations. There is added fiduciary risk involved in this project, given its size, geographical spread and multiple contractual arrangements.

Financial Management
62. The project is divided into three parts to be implemented largely independently. The SRC and RTC as well as NHA will establish PMT’s to facilitate and manage project implementation. The financial resources extended through the MDTF grant will be managed within the framework of the agencies financial management system and additional World Bank procurement and financial management procedures. The Ministry of Finance and National Economy (MFNE) is the representative of the Recipient of the Grant, and accordingly, will sign the Grant Agreement. The MFNE will make the Grant funds and other resources available to the NHA, SRC and the RTC.

63. In order to mitigate a number of weaknesses identified in the financial management system, the Bank will introduce additional arrangements for the project, including: (i) recruitment of financial management consultant into each PMT for a period of time; (ii) the use of direct payments; (iii) use of parallel accounting records to reflect project activities; (iv) submission of monthly and quarterly progress reports by the PMTs; (v) use of the PIM to guide project implementation; and (vi) appointment of an external auditor with international experience to audit the project.

64. The financial management arrangements and identified risks are detailed in Annex 6.

65. Retroactive financing. As permitted in OP8.50 on emergency recovery assistance, retroactive financing to a limit of 10 per cent of the project proceeds will be allowed to finance eligible expenditures incurred not earlier
than three months before signing of the Grant Agreement or a Supplemental Agreement for either of Phase 2 or 3 of the project.

**Disbursement**

66. The Grant is expected to be disbursed by December 31, 2009. **Annex 6 (Disbursement)** shows the allocation of Grant proceeds by component and according to expenditure category, and provides a disbursement schedule.

67. As a further measure of financial control, disbursements will be made primarily through direct payments initially. Once authorized, direct payments will be made by the World Bank directly into contractor’s, consultant’s, or supplier’s commercial bank accounts, or other financial intermediaries that are capable of receiving funds transferred through the international banking system. Retroactive financing of eligible project expenditures incurred after appraisal (July 31, 2006) and before grant signature will be allowed up to an aggregate amount of 10 percent of the grant.

68. Project management support activities (under component 1, 2, and 3) and payments below the threshold of $10,000 normally will be made through payments by the Recipient from its own resources, which will be periodically reimbursed by the World Bank upon presentation of relevant supporting documents, including proof of payment, and signed withdrawal applications. The PMTs and the main financial counterparts from the implementing agencies will be exposed to training in Bank disbursement procedures.

### 4. MONITORING AND EVALUATION

69. Within twelve months of effectiveness, an Early Implementation Assessment review would be undertaken to evaluate progress in implementing the NETREP, to reassess the relevance of its design, and to consider possible adjustments to address emerging priorities.

70. Since this is an emergency operation of short duration, monitoring activities will focus on project outputs, rather than outcomes. As such, the project will be monitored to ensure that the physical deliverables are produced and made functional, and that the key studies are carried out timely. The Monitoring Agent will, as part of its role, in particular monitor the fiduciary aspects of the project and also compliance with the requirements relating to Environmental and Social Safeguards.

71. Monitoring and evaluation of the project will focus on outputs as well as results, which will be carried out by project and contracted specialists. The project will make use of existing data sources, supplemented by regular routine project data collection, and special surveys and assessment updates carried out by contracted specialists. For this purpose key performance indicators have been identified and a baseline survey will be carried out early in the project for use to determine benchmarks. Apart from reporting on the project, the indicators and the reporting framework will be sufficient to meet the need to report on the project’s overall achievement in relation to the Results Matrix for the JAM INAR.

### 5. SUSTAINABILITY AND RISKS

72. The project faces several risks including exogenous risks. At the project level, the first major risk is the lack of capacity and experience in using Bank Guidelines and Procedures. This is being mitigated by use of technical assistance within the PMTs to provide guidance and training on procurement and financial management of the project. The second risk is the limited local consulting and contracting industry. This is mitigated by making most of the civil works tenders open to international competitive bidding thereby increasing the possibility of real competition in the procurement process. A third risk relates to demining activities which if not
properly planned in advance can significantly delay project implementation. In the case of the Babanusa – Wau railway where de-mining is required, discussions were entered into with UN Mine Action Office in Sudan (UNMAOS) early in project preparation. Based on their advise, UNOPS was brought into the discussion to assist SRC prepare the RFP for the engagement of the de-mining contractor. This RFP is now finalized and submitted for Bank no objection review. SRC will be retaining the services of UNOPS to supervise the de-mining contractor whilst UNMAOS will certify their works. In the case of the road works, NHA has similarly had discussions with UNMAOS and they have indicated that roads scheduled for improvements during phase 1 are free of mines. A further risk relates to possibility that the security situation may restrict project implementation and supervision. This is something largely outside the control of the project. To mitigate this, the Monitoring Agent whose staff are on the ground and can therefore readily use windows of opportunities will be used as much as possible to follow up on project related issues. The project has the full commitment of the GNU so political risks and the possibility that Government financial contribution will not be timely is rated as low. However, as an assurance, disbursement of grant proceeds to the Special Account is linked to respective disbursement of due Government contribution. (Annex 6). There is a risk that roads built under the project will not be maintained. Early in the project, a study is to be mounted to determine a strategy for the sustainable financing of the road sector. It is expected that implementation of recommendations from this study coupled with those on axle load control will greatly improve financing of road maintenance and safeguard road assets.

D. ENVIRONMENTAL AND SOCIAL ASPECTS

73. Project components likely to generate environmental impacts include rehabilitation of roads, rail track and rolling stock, bridges and inland and coastal port facilities. Such impacts are small and local in effect and can be mitigated by known measures during both construction and operational phases. However, although the government’s Environment Protection Ordinance of 2000 mandates the application of environmental assessment to development projects, there is lack of clarity and limited technical capacity at both Federal and State levels to support its application. Structural and budgetary constraints severely handicap the Ministry of Environment and Physical Development (MEPD) in the prosecution of its work and sector ministries, including transport, lack environmental staff and guidance. By laws to implement the Act are still pending and institutional roles and responsibilities remain ill-defined, especially at the Locality level. Substantive provisions for the participation of civil society are also absent.

74. Consequently, to engage the transport sector and the Ministry in the effective application of environmental assessment and other safeguards, the project will benefit from the use of a Sectoral Environmental Assessment (SEA). This will combine the preparation of individual environmental assessments (EAs) for the components likely to generate impacts along with: identifying generic impacts of transport sector operations and necessary mitigation measures; defining institutional arrangements for mainstreaming environmental and social safeguards within the sector while ensuring cross-sectoral integration; stipulating actions to strengthen environmental planning and management capacity and organization; and, providing a framework for incorporating environmental and social (including HIV/AIDS and gender) concerns into long-term development and investment planning and policy. Environmental Guidelines will be prepared for each of the sub-sectors covering roads, rail (including bridges), ports (inland and coastal), and airports.

75. Although no resettlement of people or land acquisition is anticipated, a Resettlement Policy Framework (RPF) will be undertaken. The SEA will also review arrangements to establish an Environmental and Social Unit within the transport sector supported by focal points in each of the major sub-sectors. It is envisioned that the Unit would be staffed with two specialists: to assist the sector incorporate environmental and social safeguards in the preparation and implementation of investments (including coordination with other sectors and the Ministry of Physical Development), apply the Environmental Guidelines, conduct training of staff at national and local levels and establish arrangements for effective functioning/reporting of the sub-sector focal points. The Unit would also develop a work program and budget requirements for a five –year horizon. An Environmental Management Task Force would also be set up to oversee the operations of the Unit and help advocate the value of environmental and
social safeguards at project, planning and policy levels (national and locality). TORs for a consultant team of international and local environmental and social specialists for conducting the SEA are included in the Appendix. The team will complete the EAs for the first year project within six months of effectiveness and the complete SEA within ten months. For other project activities for which an EA is required, these shall be prepared as part of their detailed design and their provisions incorporated as appropriate into the relevant civil works contract. Whilst no resettlement or land acquisition is anticipated for the first phase of the project, where an EA or pre-construction field investigation reveals that there are people needing to be relocated or land to be acquired, a Resettlement Policy Plan (RAP) will be prepared, approved by the Bank, disclosed and implemented prior to the start of land clearing or construction.

To monitor compliance with environmental and safeguards requirements, the Monitoring Agent will prepare monitoring and evaluation reports relating to these requirements. These reports shall be distributed to and discussed with the Environmental and Social Safeguards Unit in the MTRB and implementing agencies. The conclusions reached on the report and agreed action shall be compiled and made available to the Environmental Management Task Force that will be set up under the project.

76. The applicable safeguards policies are reflected in the table below.

<table>
<thead>
<tr>
<th>Applicable?</th>
<th>Safeguard Policy: If Applicable, How Might It Apply?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[x]</td>
<td>Environmental Assessment (OP/BP 4.01)</td>
</tr>
<tr>
<td>[]</td>
<td>Natural Habitats (OP/BP 4.04)</td>
</tr>
<tr>
<td>[]</td>
<td>Pest Management (OP 4.09)</td>
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<tr>
<td>[]</td>
<td>Involuntary Resettlement (OP/BP 4.12)</td>
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<tr>
<td>[]</td>
<td>Indigenous Peoples (OD 4.20)</td>
</tr>
<tr>
<td>[]</td>
<td>Forests (OP/BP 4.36)</td>
</tr>
<tr>
<td>[]</td>
<td>Safety of Dams (OP/BP 4.37)</td>
</tr>
<tr>
<td>[]</td>
<td>Cultural Property (draft OP 4.11 - OPN 11.03)</td>
</tr>
<tr>
<td>[]</td>
<td>Projects in Disputed Areas (OP/BP/GE 7.60)*</td>
</tr>
<tr>
<td>[]</td>
<td>Projects on International Waterways (OP/BP/GE 7.50)</td>
</tr>
</tbody>
</table>

E. PROJECT BENEFITS

This is not normally required for emergency operations.
Annex 1: Project Design Summary and Key Performance Indicators

<table>
<thead>
<tr>
<th>Hierarchy of Objectives</th>
<th>Key Performance Indicators</th>
<th>Monitoring and Evaluation</th>
<th>Critical Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector-related Assistance Strategy as Goals:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Build capacity to manage the enormous rehabilitation and development efforts;</td>
<td>- Trained and well functioning sector institutions are managing sector assets and operations.</td>
<td>The impact of specific policies and programs will be analyzed on a case-by-case basis.</td>
<td>Attention and funds are not diverted from the agreed development strategy for other purposes.</td>
</tr>
<tr>
<td>o To create an early stream of benefits which addresses poverty through employment generation, kick-start economic activity and restoring essential infrastructure and services; and,</td>
<td>- Key bottlenecks in rail, river transport operations and rural road networks in the three areas removed.</td>
<td></td>
<td>There is sustained political support for continued cooperation with the Bank/MDTF for infrastructure improvements.</td>
</tr>
<tr>
<td>o Policy and analytical work</td>
<td>- Vision for sustainable road sector financing prepared.</td>
<td></td>
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<tr>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>Rural accessibility is improved in areas affected by project investments;</td>
<td>Early Implementation Assessment report one year after effectiveness.</td>
<td>Improvements in physical infrastructure are accompanied by complementary interventions in other sectors.</td>
</tr>
<tr>
<td>Project Development Objective (PDO):</td>
<td>Time taken for villagers to reach closest markets and services reduced;</td>
<td>Bank Supervision Aide-Mémoires, monthly progress reports by supervising engineers and technical assistance teams.</td>
<td>There are no external or internal price shocks.</td>
</tr>
<tr>
<td></td>
<td>Cost of key commodities reduced in villages and towns affected by project investments;</td>
<td>Implementation Completion Report.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training of staff provided and capacity increased in implementing agencies;</td>
<td></td>
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<tr>
<td></td>
<td>Normal traffic operations on the key rail and waterway arteries facilitating movements on the key import/export links;</td>
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<tr>
<td></td>
<td>Additionally, the civil works, equipment and subsequent operation and maintenance financed through the project will provide employment for the local population in all rehabilitation and subsequent operation and maintenance activities.</td>
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</tbody>
</table>
### A. Component 1

1. **Equipment and Rehabilitation of Babnousa Wau Railway Line.**
   1.1 BW Railway capable of carrying at least one pair of trains per day
   1.2 Bridge # 353
   1.3 Damadama extension
   1.4 Kosti Port rail rehabilitation and New Port rail extension
   1.5 TA for PSP enhancement study and other activities to support concessioning.
   1.6.0 Enhancement of sector management capacity of MTRB.
   1.6.1 Improvements to inter modal operations at Port Sudan.
   1.6.2 Capacity building in the Transport Planning Unit
   1.6.3 Establish environmental and social safeguards unit including short term TA
   1.6.4 Support for project implementation including technical assistance.

2. **River Transport**
   1) Rehabilitation of two passenger vessels and manufacturing of two ferry boats.
   2) Passenger waiting shed and facilities
   3) Rehabilitation of Kosti quay wall
   4) Container handling quay/floating platform at Juba
   5) Four Negative lift reach stackers at Kosti, Juba, Malakal
   6) Study of and support for concessioning Kosti New Port
   7) Study to establish emergency dredging requirements and navigational aids
   8) Hydrographic survey
   9) TA for QC of design and construction
   10) Support for PMT, Institutional Support and Capacity Building

### Component 1

1. **Key Performance Indicators**
   1) BW Railway capable of carrying at least one pair of trains per day
   2) Bridge # 353 in commission without disruption in the rainy season
   3) Rail movement capability to the Port Sudan container terminal for returning empty containers
   4) Kosti Port rail rehabilitation completed New Port rail extension commissioned
   5) PSP study completed; institutional and structural changes started and support for right sizing staff and improving infrastructure on Port Sudan-Khartoum section
   6) Study completed and implementation underway
   7) Staff recruited into the Planning Unit and TA in place
   8) Monitoring reports on implementation of environmental and social safeguards provisions of the being produced and reviewed.
   9) Satisfactory project management and capacity building activities. Annual Training programs carried out.
   10) Baseline survey conducted.

### Component 2

1. **Key Performance Indicators**
   1) Two vessels rehabilitated and operational
   2) Two ferry boats operational
   3) Passenger waiting shed and facilities in use
   4) Kosti Key wall reconstructed and no longer a risk to traffic
   5) Container handling quay/floating platform at Juba operational
   6) Four Negative lift reach stackers procured and operational at Kosti, Juba, Malakal
   7) Study for concessioning Kosti New Port and concessioning complete
   8) Study completed
   9) Hydrographic survey completed
   10) TA for QC of Juba Container quay design and construction procured and effective
   11) Satisfactory project management and capacity building activities. Annual training programs carried out

### B. Component 2

1) Hydrographic survey
2) Baseline survey conducted.

### Critical Assumptions

- Local resources sufficient and provided in a timely manner.
- Procurement procedures in place
- Administrative changes in ministries do not disrupt project implementation.
- Commitment within government for policy and institutional reforms.
- The political setting and security conditions allow reforms to be implemented.
- Sufficient and timely resources made available to the PMTs.
- Security conditions permit implementation.
- Local resources sufficient and provided in a timely manner.
- Procurement procedures in place
- Administrative changes in ministries do not disrupt project implementation.
- Commitment within government for policy and institutional reforms.
- The political setting and security conditions allow reforms to be implemented.
- Sufficient and timely resources made available to the PMTs.
- Security conditions permit implementation...
<table>
<thead>
<tr>
<th>Hierarchy of Objectives</th>
<th>Key Performance Indicators</th>
<th>Monitoring and Evaluation</th>
<th>Critical Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component 1</strong></td>
<td>1.1. Equipment and Rehabilitation of Babanusa – Wau rail line.</td>
<td>Project Progress reports, including poverty and gender conscious baseline data.</td>
<td>Counterpart funds and co-financing are available, as planned.</td>
</tr>
<tr>
<td></td>
<td>1.2 Rehabilitation of railway bridge No. 353.</td>
<td>Project FMRs.</td>
<td>Procurement problems do not cause implementation delays.</td>
</tr>
<tr>
<td></td>
<td>1.3 Rail connection to Dama Dama container depot</td>
<td>Disbursement Reports.</td>
<td>Implementing agencies adequately staffed.</td>
</tr>
<tr>
<td></td>
<td>1.4 Improvements to rail connections at Kosti Port (within existing and to new port).</td>
<td>Audit Reports.</td>
<td>Ability to attract international experts.</td>
</tr>
<tr>
<td></td>
<td>1.5 Study and other activities to enhance Private Sector Participation in the railways</td>
<td></td>
<td>Implementing institutions have adequate capacity to provide sufficient technical support for PMTs.</td>
</tr>
<tr>
<td></td>
<td>1.6.0 Enhancement of sector management capacity of MTRB.</td>
<td></td>
<td>Accounting and auditing arrangements transparent and adequate.</td>
</tr>
<tr>
<td></td>
<td>1.6.1 Improvements to inter modal operations at Port Sudan.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1.6.2 Capacity building in the Transport Planning Unit</td>
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<td>1.6.3 Establish environmental and social safeguards unit including short term TA</td>
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<td></td>
<td>1.7 PMT- support for project implementation including technical assistance.</td>
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<td><strong>Component 1</strong></td>
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<td>32.38</td>
<td>Project Progress reports, including poverty and gender conscious baseline data.</td>
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<tr>
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<td>1.24</td>
<td>Project FMRs.</td>
<td>Procurement problems do not cause implementation delays.</td>
</tr>
<tr>
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<td>3.25</td>
<td>Disbursement Reports.</td>
<td>Implementing agencies adequately staffed.</td>
</tr>
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<td>3.58</td>
<td>Audit Reports.</td>
<td>Ability to attract international experts.</td>
</tr>
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<td></td>
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<td>Implementing institutions have adequate capacity to provide sufficient technical support for PMTs.</td>
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<td>Accounting and auditing arrangements transparent and adequate.</td>
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<td></td>
<td><strong>41.95</strong></td>
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## Hierarchy of Objectives

### Project Components/ Sub-components:

<table>
<thead>
<tr>
<th>Component 2</th>
<th>Component 2</th>
</tr>
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<tbody>
<tr>
<td>2.1. Equipment in support of port operations.</td>
<td>6.08</td>
</tr>
<tr>
<td>2.2 Support for concessioning of New Kosti Port</td>
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</tr>
<tr>
<td>2.3. Study to establish emergency dredging and navigational aids needs.</td>
<td>0.60</td>
</tr>
<tr>
<td>2.4 Hydrographic survey and mapping of White Nile</td>
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<tr>
<td>2.5 PMT-support for implementation including institutional development and capacity building.</td>
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</table>

### Component 3

<table>
<thead>
<tr>
<th>Component 3</th>
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</thead>
</table>

#### 3.1 Program of Construction and Spot Improvement Works

##### Construction

3.1.1 Contract 1, Kadoughi-Kaouda Road (135km) 21.00
3.1.2 Construction supervision 0.22
3.1.3 Contract 2, Ed Damazin – El Kurmuk (55km) 24.00
3.1.4 Construction supervision 0.48
3.1.5 Contract 3, Construction of Hamashkraid-El Gahwa (90km) 32.50
3.1.6 Construction supervision 1.14

#### 3.2 Upgrading to Paved Road Standard

##### Construction

*Ed Damazin – El Kurmuk*

3.2.1 Contract 1 - Section 1 (93 km). (Phase 2 activities)
3.2.2 Construction supervision
3.2.3 Contract 2 – Section 2 (55km)
3.2.4 Construction supervision

#### 3.3 Spot Improvements in the Nuba Mountains

##### Detailed Design

3.3.1 Abu Gegeia-Talodi (160 km) 0.56
3.3.2 Talodi-Kadugli (150 km) 0.53
3.3.3 Damazin – Geissan (160km) 0.64
3.3.4 Toker – Garora (215km) 0.75

##### Construction

*Abu Gegeia-Talodi (160km)*
3.3.5 Construction contract (s)
3.3.6 Construction supervision

*Talodi-Kadugli (150km).*
3.3.7 Construction contract(s)  
3.3.8 Construction supervision  

3.4 Rural Access Program for the Three Areas  

Feasibility Study and detailed design  

3.4.1 Geissan – Kurmuk (160km).  
3.4.2 Damazin – Renk (200km).  
3.4.3 Kadugli – Heglig (170km)  
3.4.4 Muglad – Abyei (160km)  

3.5 Studies, Institutional Development and Support for Program Implementation  

3.5.1 Support for project implementation including technical assistance.  
3.5.2 Various studies including on sustainable road sector financing, pavement management, road safety and axle load control.  
3.5.3 Institutional development and capacity building for NHA including training, workshops, study tours, etc.  
3.5.4 Establishment of pavement management system and improvements to materials testing laboratory.  

**Additional Performance Indicators that will be established based on Baseline surveys to be carried**  

<table>
<thead>
<tr>
<th>Economic Indicator</th>
<th>Social Indicator</th>
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<tr>
<td><strong>Main Roads</strong></td>
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</tr>
<tr>
<td>Travel time savings.</td>
<td>Number of accidents.</td>
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<tr>
<td><strong>Village Access Roads</strong></td>
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<tr>
<td>Travel time savings.</td>
<td>Number of days students attend school.</td>
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<tr>
<td>Cost of up to three key inputs for villagers.</td>
<td>Medical care that now can be provided at home instead of hospital.</td>
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<tr>
<td>Cost of road per beneficiary or ERRs.</td>
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## ANNEX 2: DETAILED COST TABLE

<table>
<thead>
<tr>
<th>Item</th>
<th>Components</th>
<th>Sub – Components</th>
<th>Estimated Cost (US$ million)</th>
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<tr>
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<td>Phase 1</td>
<td>Phase 2</td>
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<td>1</td>
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<td>1.3 Rail connection to Dama Dama container depot</td>
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<td>1.4 Improvements to rail connections at Kosti Port (within existing and to new port).</td>
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<td>1.6.1 Improvements to inter modal operations at Port Sudan.</td>
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<td>1.6.3 Establish environmental and social safeguards unit including short term TA</td>
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<td>Improvements to River Transport Services</td>
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<td></td>
<td></td>
<td>2.2 Support for concessioning of New Kosti Port</td>
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<td>2.3. Study to establish emergency dredging and navigational aids needs.</td>
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<td>2.4 Hydrographic survey and mapping of White Nile</td>
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<td>Road Improvements in the Three Areas</td>
<td>3.1 Program of Spot Improvement Works</td>
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<td>Road(135km)</td>
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<td>3.1.8 Contract 2, Ed Damazin – El Kurmuk(55km)</td>
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<td>3.1.9 Construction supervision</td>
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<td>3.1.10 Contract 3, Construction of Hamashkraid-El Gahwa (90km)</td>
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</table>
### 3.1.11 Construction supervision

### 3.2 Upgrading to Paved Road Standard

**Construction**

*Ed Damazin – El Kurmuk*

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
<th>Cost 3</th>
<th>Cost 4</th>
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<tbody>
<tr>
<td>Contract 1 - Section 1 (93 km)</td>
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<tr>
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</table>

**Contract 2 – Section 2 (55km)**

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<th>Cost 3</th>
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</thead>
<tbody>
<tr>
<td>Construction supervision</td>
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### 3.3 Spot Improvements in the Nuba Mountains

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
<th>Cost 3</th>
<th>Cost 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Design</td>
<td>0.56</td>
<td>0.53</td>
<td>0.64</td>
<td>0.75</td>
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</table>

*Abu Gegeia-Talodi (160 km)*

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
<th>Cost 3</th>
<th>Cost 4</th>
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</thead>
<tbody>
<tr>
<td>Construction contract (s)</td>
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<td>68.00</td>
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<tr>
<td>Talodi-Kadugli (150 km)</td>
<td>2.72</td>
<td>2.72</td>
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**Talodi – Kadugli (150km).**

<table>
<thead>
<tr>
<th>Description</th>
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<th>Cost 2</th>
<th>Cost 3</th>
<th>Cost 4</th>
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</thead>
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<td>Construction contract (s)</td>
<td>63.75</td>
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<tr>
<td>Construction supervision</td>
<td>2.55</td>
<td>2.55</td>
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</table>

### 3.4 Rural Access Program for the Three Areas

**Feasibility Study and detailed design**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
<th>Cost 3</th>
<th>Cost 4</th>
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</thead>
<tbody>
<tr>
<td>Geissan – Kurmuk (160km)</td>
<td>1.15</td>
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<td></td>
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</tr>
<tr>
<td>Damazin – Renk (200km).</td>
<td>1.50</td>
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<tr>
<td>Kadugli – Hegleig (170km)</td>
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<td></td>
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<tr>
<td>Muglad – Abyei (160km)</td>
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</table>

### 3.5 Studies, Institutional development and Support for Program Implementation

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost 1</th>
<th>Cost 2</th>
<th>Cost 3</th>
<th>Cost 4</th>
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</thead>
<tbody>
<tr>
<td>Support for project implementation</td>
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<tr>
<td>Including technical assistance.</td>
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<tr>
<td>Various studies including on sustainable road sector financing, pavement management, road safety and axle load control.</td>
<td>0.45</td>
<td>0.50</td>
<td></td>
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<td>Institutional development and capacity building for NHA including training, workshops, study tours, etc.</td>
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<td>0.10</td>
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<td>Establishment of pavement management system and improvements to materials testing laboratory.</td>
<td>1.75</td>
<td>1.00</td>
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</table>

**Sub-Total** 89.27  51.49  137.02  277.78

**Grand Total** 142.18  91.49  137.02  370.69

**NOTE:**
1. The above costs are inclusive of price and physical contingencies, for rail and road components taken as 5% and 10% respectively and for river transport as 5% for each. Contingencies take into account the difficulty in estimating costs in areas affected by security risks and supply demand imbalances, especially for materials that are subsidized and subjected to quotas, such as fuel and bitumen.
ANNEX 3: DETAILED PROJECT DESCRIPTION

1. The proposed National Emergency Transport Rehabilitation Project - NETREP has been flexibly designed to permit rapid responses to changing circumstances on the ground, and to allow adjustments to the relative size and scope of components as implementation progresses. NETREP complements the Sudan Emergency Transport and Infrastructure Development Project (SETIDP) earlier approved by the IOC and now under implementation. SETIDP is focused on meeting critical transport and basic urban infrastructure needs in Southern Sudan. Implementation of the proposed project is expected to trigger transport costs reductions that will have a national impact on the cost of imported goods. It is expected to also facilitate export activities and north south movement of people and goods within Southern Sudan.

2. NETREP consists of three components covering physical interventions in three sub-sectors: Component 1 comprises railway related activities; Component includes sub-projects related to improvements to river transport services, in particular the Kosti - Juba corridor whilst Component 3 relates to road improvements, particularly in the Three Areas. Components 1, 2, and 3 would be implemented independently by the SRC, RTC, and the NHA respectively, with the Sea Port Corporation (SPC) assisting RTC with port development activities (civil works). In addition and related to NETREP, there is support proposed under the Technical Assistance Facility to carry out a Transport Master Plan. This activity would be managed by MTRB with close involvement of sector agencies and other stakeholders. The Planning Unit of the MTRB which is to be strengthened under the project will play a coordinating role, and prepare combined progress reports from contributions by the implementing agencies.

3. NETREP is to be implemented in phases (programmatic approach), with the commencement of each phase dependent upon funding availability and readiness for implementation. This project description covers what is to be financed under Phase 1. The activities, costs and implementation period for Phases 2 and 3 as presented below are tentative and subject to change. When MDTF funding for these phases becomes available, the components will be firmed-up and presented to OC for financing approval.

Component 1: Rehabilitation of critical rail infrastructure and services (US$41.95 million)

1.1 Equipment and Rehabilitation of Babanousa-Wau Railway Line (US$32.38 million)

4. The main objective is to rehabilitate this 446 km railway line that has not carried commercial traffic for over a decade. It is the only rail link between Northern and Southern Sudan and services an area where the terrain is difficult and existing roads are impassable during the annual six monthly rainy season. Goods and services could be made available to settlements along the railway and its surrounding hinterland by restoring the line and rail services – including Wau and places beyond it, such as Rumbek and Raga, Bahr el Arab and Abyei. The costs of transporting humanitarian assistance and the UN peace keeping forces’ requirements of petroleum products and other goods would reduce. Further, the railway would receive earth moving equipment that is required for, and will be subsequently used in, its normal maintenance activities as well. Rehabilitation of this link will also facilitate the return of internally displaced persons resident in Khartoum, especially to the north-western parts of Southern Sudan.

5. It is proposed to rehabilitate the Babanousa-Wau railway as quickly as possible so that it can easily operate a pair of trains each day. One third of this level, i.e. a pair of trains every third day, is sufficient to transport 80,000 t on the line per year. Initially, freight traffic is not envisaged to exceed this level3. Later it may be also be possible to provide social extension services at stations along the line through the use of train borne social workers in special coaches for rehabilitation of the population affected by conflict along the line of rail in the past

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ten years. The first step is to demine those sections affected by the presence of mines and this is proposed to be done through a demining contract to be contracted by UNOPS as agent of the SRC. Civil works involving track re-instatements will be carried out principally by SRC using its own labor force given the simplicity of the work involved which is not too dissimilar to track maintenance. Some equipment to support these works and subsequent maintenance activities will be procured under this sub-component.

1.2 Rehabilitation of Bridge Number 353 on the Khartoum-Port Sudan Rail Section (US$1.25 million)

6. Bridge No. 353, at km 718 on the section Erba/Kombosana is an important large size bridge of six spans (110 feet each) on the main corridor Khartoum-Port Sudan section which carries Sudan import and export traffic. The bridge is unable to accommodate river flow volumes in the rainy season and it was damaged by floods in 2004-05. Adding another span to the bridge at the Port Sudan end, repairing existing spans and river protection works will improve river flow at the bridge site, allow safe running of trains on the main SRC route at full load and normal speeds, and prevent wash away and traffic disruption during the rainy season.

1.3 Establishment of Rail Connection to the Damadama Area of Port Sudan (US$3.25 million)

7. The main transport activity between Port Sudan and Khartoum is external trade traffic, with imports exceeding exports by a factor of 9:1 (excluding petroleum products). SRC’s market share of imports has been 15 per cent in each of the last two years. A crucial component is movement of containerized cargoes as containerization of Sudan’s external trade is increasing rapidly, in line with worldwide trends. In Port Sudan empty containers are segregated in the Damadama area near the South Port that is not rail served. This provides an advantage to road transportation of containerized traffic because inland transport contracts for containerized movements normally require the return of boxes to the port by the same mode. Without rail access to the holding area for returning containers railways are hindered from offering services. By linking the railway lines in the existing container terminal to the Damadama area, rail services will be able to move containers from and to Port Sudan, both loaded and empty respectively. With enhanced PSP in railways it should then be possible to shift some of this traffic to the lower cost rail mode.

8. The movement of returning empty containers to the Damadama area by rail after completion of this sub-project will be a key performance indicator.

1.4 Improvement to rail connections at Kosti Port (within the existing port and to the new port). (US$3.58 million)

9. There is an urgent need to establish an efficient transport corridor between Port Sudan and Juba, particularly for container traffic. Several aspects of this are addressed in components of the project, particularly in Component 2 related to IWT. SRC has not provided rail services for multi-modal transport (land and inland water) in the corridor for ten years. To facilitate this, its existing links to the port wharf at Kosti, which is operated by the RTC will be rehabilitated and a new rail connection built to link the old and new port.

1.5 TA for a study to enhance Private Sector Participation in the sector (US$0.40 million)

10. SRC took the initiative in 1999 to introduce PSP in passenger services and in freight services in 2003. This has had the beneficial result of allowing SRC to stay in being despite the negative impact of sanctions on Sudan. However, it is clear that existing arrangements in the sector which involve the primacy of SRC as an entity with limited involvement of PSP in rail services is not sustainable. The study will assist GoS in quickly

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4 This is the major traffic stream on the railway.
5 Container penetration increased from 38 per cent to 51 per cent during 2000-04. In this period total traffic (excluding petroleum) grew by 50 per cent to 3.7 million tonnes.
establishing frameworks for enhanced PSP in the railway sub-sector enabling the mode to play a sustainable role in Sudan’s economy.

11. High fixed staff costs are now part of a vicious cycle that could eventually lead to terminal decline in the mode. Additional rail capacity cannot be created and sustained without staff rationalization because the high percentage of revenue that is spent on direct staff costs in SRC is unsustainable. A plan would be evolved, as part of the PSP study, to study and alleviate this problem in a phased manner. This would include an assessment of staff that would require retrenchment after taking into account retirements and other attrition. Following this GNU could seek financial support for retrenching staff as well as counseling and training those who could shift to other occupations. At the same time shortages of skills, if any, would also be identified and measures recommended for overcoming these.

12. Evolving a sustainable framework for PSP is an essential requirement for ensuring MDTF participation in the large Port Sudan Khartoum rehabilitation project envisaged in the medium term for the railway sector. Enhanced PSP and a satisfactory institutional framework for it to thrive are pre-requisites to find a matching amount of investment in rolling stock and terminal handling facilities to enhance rail services in Sudan, make them efficient and facilitate increasing the rail share of available traffic.

13. Referring to the PSP study, its recommendations will require support in two major areas. These are for right sizing staffing and assisting with the social costs of retrenchment of surplus employees, together with support to enhance the infrastructure so that efficient railway operations can take place. This provision (US$ 40.00 million) is made for the second phase of NETREP.

1.6: Improvements to inter modal operations at Port Sudan (US$ 0.50 million)

14. Lack of co-ordination and complex procedures at the modal interface at Port Sudan has led to considerable delays to goods transiting the port. The study would involve a review of trade facilitation at the Port at the Customs and transport services interface (documents and clearances required before inland movements can occur by road or rail). Besides streamlining procedures, it is envisaged that equipment and software (ASYCUDA++ from UNCTAD, for example) would be provided by the project to assist in Customs modernization through improved facilitation procedures. These would aim to reduce delays by using risk analysis to assist with selective cargo inspection so that goods can transit quicker, while revenue collection is safeguarded. This sub-component is important in ensuring that the transport corridor between north and south Sudan functions efficiently. Implementation of this sub-component will be led by the SPC through the standing port users group dealing with this issue.

1.7. Capacity building in the Transport Planning Unit (US$0.25 million).

15. Sector planning and management is an important function of the MTRB through which it provides guidance and direction to the agencies it supervises. Unfortunately, it is generally accepted that the Planning Unit of the MTRB, which has a lead role in MTRB in this respect, is very weak. The MTRB has a role in ensuring that the objectives of NETREP are achieved and to therefore coordinate its implementation and report on its achievements. It also has a role to oversee the conduct of the proposed Transport Master Plan. These two factors have led the MTRB to now want to improve its ability to discharge these two roles through strengthening of the Planning Unit. The ministry intends to recruit staff to the Unit by the secondment of local staff on enhanced conditions of service from within the civil service, providing on and off the job intensive training to them and recruitment of a TA that will provide advice and guidance to the Head of the Unit as well as his staff so that they

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6 Sudan Sea Ports Corporation indicated during discussions that imports spend 40 days in the port on an average presently. This represents a large avoidable national loss.
are able to effectively discharge their functions. This team is proposed to act as the technical secretariat for the TMP and to also monitor implementation of NETREP on behalf of the Ministry.

18 Establishment of environmental and social safeguards unit including short term TA (US$ 0.15 million)

16. This unit will be established through appointment by the MTRB of a staff to discharge this safeguard function and recruitment of an expert to assist in the establishment of the Unit. The Unit will oversee the conduct of the ESAF and its implementation and, as necessary, provide guidance to the PMTs on safeguard issues and monitor and report upon compliance with Environmental and Safeguards provisions under the project.

1.9 Provision for supporting the PMT and institutional development and capacity building in the sub-sector.(US$ 0.20 million)

17. The PMT requires support for its functioning and a budgetary provision has been made to provide it with necessary equipment such as computers fax machine, communication equipment etc. In addition, a baseline survey and capacity building activities such as workshops and training will be undertaken in the sub-sector over the project period.

Component 2: Improvements to river transport services (US$10.96 million).

2.1. Equipment in Support of Port Operations

2.1.1: Rehabilitation of two passenger vessels and manufacturing of two ferry boats (US$ 1.60 million)

18. For passenger transport, though RTC has four passenger vessels capable of carrying 232 passengers each are not functioning. Materials have been procured by RTC with funds provided by GNU to rehabilitate two of these. In addition passenger amenity equipment would be installed. The two ferry boats to be manufactured by RTC will be for operation in Malakal over the River Sobat to facilitate North to South vehicular traffic during the dry season. They will be operated by either RTC or the private sector depending on the most optimal arrangement.

2.1.2: Passenger waiting shed and facilities (US$ 0.20 million)

19. The conditions under which Internally Displaced Persons (IDPs) wait for river transport to move from North to South Sudan are not satisfactory. RTC would construct waiting sheds for IDPs at New Kosti port including sanitation. It has been agreed that effluents will be dealt with in terms of World Bank environmental safeguards and guidelines.

2.1.3: Rehabilitation of Kosti quay wall (US$0.50 million)

20. In the case of container movements, as well as for general cargo break bulk movements to a limited extent, cargo handling arrangements at Kosti and Juba are unsatisfactory. The infrastructure has deteriorated at Kosti and the quay wall at the existing port requires repairs.

2.1.4: Container handling quay/float.ing platform at Juba (US$ 0.50 million)

21. The entrance to the port at Juba has silted and vessels cannot enter it. This has resulted in barge unloading and loading operations for break bulk cargo taking place at another location along the river bank near Juba town served by a road. It is proposed that a temporary quay or floating platform be established at Juba as an interim measure, comprising a platform for a container handling crane or reach stacker so that container transshipment can be undertaken at this location until more permanent arrangements can be made. At Juba the construction
2.1.5: **Negative lift- reach stackers at Kosti, Juba, Malakal (US$2.88 million)**

22. The river ports require container handling equipment. The absence of these hinders container handling even when barges capable of handling containers are available. Four reach stackers would be purchased for use at Juba, Malakal and Kosti (2). These would have negative lift capabilities to allow their use in the river ports during the dry season, when the level of the barge decks could be about 5.5 meters below the quay levels.

2.1.6: **TA for quality control of designs and implementation activities. (US$0.40 million)**

23. RTC on its own and with technical support of SPC will be undertaking some of the design and construction supervision involved in implementing some of the project sub-components, especially those relating to civil works. The designs and construction will be proof checked and subjected to quality control by a domestic consultant. Quality assurance services on some of the equipment installations where needed would also be funded from this sub-component.

2.2: **Support for concessioning of Kosti New Port (US$ 1.00 million)**

24. For enhancing PSP in the sector the new port at Kosti provides an opportunity for GNU to bring in private sector efficiencies (and investment) in river port operations, particularly because the green-field site is nearly ready and is unencumbered. To move forward on this the TA component of the project will fund a study to concession the facility with the objective of achieving this within a year. The results of the study will be supported by a provision to build infrastructure or provide additional equipment to improve the conditions for transferring the port on a concession. The reach stackers that have been identified for procurement and use in New Kosti port will be leased to the concessionaire.

2.3: **Study to establish emergency dredging and navigational aids requirements (US$ 0.60 million)**

25. The navigational conditions for water transport between Kosti and Juba have deteriorated in the past two decades owing to natural causes and the absence of sustained maintenance and capital investments. In turn, the latter was caused by conditions of conflict in the reaches of the River Nile. To undertake emergency dredging and to install river navigation aids a study is required to be conducted immediately. The study will review earlier studies while prioritizing the areas where emergency dredging should be conducted. Bidding documents will be produced from this activity. The study will also include a review of the IRND with regards to its mandate, structure, capacity, work load, etc. and make detailed and specific recommendations for transforming the IRND into a modern organization operating on a lean and fit basis to discharge its appropriately defined mandate. Existing draft legislation for regulating inland water transport will be reviewed with a view to having a Sudan regulation that is in harmony with those existing in the region. Capacity building activities to enable IRND oversee any major dredging activity will also be elaborated. During project preparation, the position of Government was that it would seek bilateral assistance to carry out any dredging recommended to be carried out by the study.

2.4: **Hydrographic survey (US$ 3.00 million)**

26. Simultaneously the River Nile needs to have a hydrographic survey conducted as a prelude to establishing an improved long-term plan for capital dredging and choosing improved navigation channels on the Kosti to Juba route. For this activity either a survey vessel will be purchased and hired out to competent consultants to carry out
the task or such expertise will be sought together with equipment and/or vessels which the consultants will be asked to bring into Sudan temporarily. Technical oversight of this sub-component will be by the IRND.

2.5: Support for PMT, Institutional Support and Capacity Building (US$ 0.28 million)

27. The PMT requires support for its functioning and a budgetary provision has been made to provide it with necessary equipment such as computers, fax machine, communication equipment etc. and two 4WD crew cab pick ups. In addition, a baseline survey for the component and capacity building activities such as workshops and training will be undertaken in the sub-sector over the project period and a baseline study undertaken.

Component 3: Road improvements in the Three Areas (US$89.27 million)

28. The emphasis during the first phase of NETREP would be on a program of spot improvements as well as upgrading of key roads in the Blue Nile and Nuba Mountains areas while preparing for an upgrading of other critical road links to a bituminous standard during Phases 2 and 3. Necessary technical studies and design activities would have to be carried out to prepare for possible implementation later. All civil works would be supervised on site by consultants to be recruited as part of the first phase components. Capacity building support would also be provided to NHA to support implementation (the PMT) and a general strengthening of the road sector management. A detailed description of the component follows.

3.1 Program of construction and spot improvements

E’Damazin – El Kurmuk road improvements- second section (Phase 1 - US$24.48 million)

29. This high priority project (148 km) will provide access to Angassana Mountains and break the isolation of large communities. The project also links this part of Sudan (Blue Nile State) with Ethiopia and large centers of IDPs. The project will help boost agriculture and increase farm gate prices and thus income for a priority area affected by poverty. Indirectly, the project would also increase trade and access to social services in a priority corridor. This would also help in integrating cultures; improve security and national unity, besides obvious reductions in transport costs.

30. The Pakistani Army has recently upgraded the first 20 km. Embankment (earthworks), sub-base and Irish crossings were in 1991 completed for the next 73 km towards Kurmuk. There is now a need to urgently prepare design and bid documents for upgrading this 93 km to bituminous standard, and provide funding for construction work and supervision. To begin the upgrading, the design and bid document are being prepared for spot improvements on the remaining 55 km (second section) to Kurmuk for construction under Phase 1 as well as for upgrading this section to a bituminous standard under a follow on second contract in Phase 2.

31. The NHA under their own budget is currently implementing an upgrading of the road to E’Damazin from Sennar (last 60 km towards E’Damazin) in order for these proposed investments to be fully utilized. The ongoing work is expected to be finished by early January 2007.

32. The documents for the second section (of 55 km.) will be ready for tendering by end of August 2006. Arrangements would have to be made for pre-qualification of bidders by NHA and for short-listing of consulting firms for construction supervision. Local consulting firms would be able to do this with support from their international partners. The TOR for supervision should include provisions for design review and any update necessary to be included as variations to the contracts.
3.2 Upgrading to Paved Road Standard

Hamishkouraib – El Gahwa Road (US$ 33.64 million).

33. This 90 km long earth road is planned to be upgraded to a bituminous standard, and the project is almost ready for tendering. Draft bid documents are available, and these only need review and updating before tendering can start. UNMAS has advised that the road has no mines.

34. The project would provide access to an important agricultural area with livestock where development has been hampered by insecurity, isolation and poor accessibility to markets, employment and social services. There is potential for tourism once the road is finished and the area developed.

35. These works also include under Phase 2, the Ed Damazin to El Kurmuk as described above for both section 1 (93 km.) and section 2 (55 km.).

3.3 Road Improvement Program for Nuba Mountains (US$21.2 million)

36. The project would finance spot improvements addressing the most critical river crossings by providing concrete structures or temporary bridges and widening the existing track for safer and more reliable access year round. Some areas of the road alignment may be affected by land mines and UXO, and mine clearance would be an important activity during construction. In addition, the Phase 1 would finance feasibility studies, design and tender documents for road sections for subsequent construction and supervision under Phases 2 and 3.

37. The road section for construction under Phase 1 is Kadougli – Kaouda road (135 km). The Abu Gubeyah – Talodi road (about 160 km) and Talodi – Kadugli road (about 150 km) are programmed for construction in Phase 2 at a cost of US$137.02.

38. These 445 km of rural roads are important links that, when constructed, break the isolation of Southern Kordofan, and provide all year access to areas now inaccessible for more than 5 months of the year. The project would increase agricultural production, increase trade, lower costs of inputs and improve farm gate prices and access to markets, social services and employment opportunities. National unity and security as well as regional economic integration are just some of the additional positive outcomes of this project, which will significantly lower transport costs and travel time in a large part of the country.

39. Design and tender documents would have to be prepared as a matter of urgency by local consultants under three separate spot improvement contracts. Phase 1 would finance construction supervision by international consultant under one contract. In addition, Phase 1 would include the cost of feasibility studies and design in order to continue the improvements of these roads to a bituminous standard under phases 2 & 3.

3.4 Preparation of a Rural Access Road Program for the Three Areas (690 km) (US$5.00 million)

40. This component would finance feasibility studies, preliminary engineering, design and tender documents for about 690 km of roads in Abyei, Blue Nile and Nuba Mountains. The highest priority roads in this program are:

- Geissan Road - El Kurmuk (160 km).
  This project would supplement the proposed investments in Phase 1 (E’Damazin – El Kurmuk road) by providing access to an important agricultural area with a considerable poor and isolated population.
- Damazin – Renk (200 km). This road section will break isolation between Southern and Blue Nile States and boost agricultural production and consequently increase regional income. The project will promote social change, political stability, and significantly reduce vehicle operating costs.
- Kadugli - Heglieg – Bentiu Road (520 km).
This main road links Nuba Mountains with the South, and gives access for marketing of agricultural produce in the south. The project would improve farm gate prices and assist in developing natural resources. Responsibility for completion of the section from Heglieg to Bentiu (350 km) would need to be followed up through discussion between NHA and the GOSS Ministry of Transport.

- **Muglad – Abyei road (160 km).**
  This secondary road starts about 135 km south of Babanussa and provides connectivity to large areas with very poor access to town centers and major highways. Once completed, this road would allow a large number of villages to be provided with a basic minimum standard of access to the rest of the country. There are areas infected by unexploded mines ordnance (UXO) and land mines. Responsibility for completion of the link from Gogrial to Wau (280 km) will need to be followed up through discussion between NHA and the GOSS Ministry of Transport. Construction of this section would require a new steel bridge over the Jur River at Gogrial.

42. The feasibility studies may result in a change in the priorities, so the final list of roads to undergo design and tendering may be different from the initial priorities as laid out above.

### 3.5 Studies, Institutional development and Support for Program Implementation

*Various studies to promote improved road sector management and financing (US$0.45 million)*

43. This sub-component provides for several activities on how best to achieve a stable and adequate flow of funds to address the huge backlog in the sector of road rehabilitation and maintenance works would also be completed. The road user charges study would look at all possible sources of revenues from users of road services and develop options for fully funding the road sector as a public utility through levies, license fees, tolls or surcharges on truck tariffs (transport contracts). Studies to elaborate road safety and axle load control plans will also be undertaken under this sub-component as well as a baseline study for this component. These activities span Phase 1 and 2 of the project with an overall budget of US$ 0.95 million.

*Institutional development and capacity building including training, workshops, etc. (US$0.10 million).*

44. Activities under this component provides for the implementation of a training program (in and out of the country) to promote technology transfer to NHA and enhance staff career development. The Sub-Saharan Africa Transport Policy Program (SSATP), a multi-donor assisted program to promote adoption of sound transport policies and practices, has agreed to partner with NHA in some of the above activities. Workshop on various topics will include on road sector management, rural transport and specific aspects of contract law, in particular on dispute resolution alternatives and most common pitfalls for Employer in contract management. Some of these activities will involve contractors and consultants providing services to NHA especially on contract management and design-bid contracting with extended warranty period.

*Establishment of a pavement management system and improvements to materials testing laboratory (US$ 2.75 million)*

45. Under this sub-component, NHA will be assisted to establish a pavement management system so as to improve the timing of its interventions to safeguard the road network. The sub-component will also finance limited laboratory and survey equipment to improve management and the validation of field work (soils and materials and location surveys), (HDM4 software and PC), asphalt materials testing, GPS and total stations, CAD equipment and development of an electronic library.

*PMT - support for project implementation including targeted technical assistance. (US$0.15 million)*
46. A TA would be recruited to assist the NHA in procurement and financial management in the initial stages of Phase 1 of NETREP, while also carrying out formal and on-the-job training for PMT and NHA staff. The PMT would have a local staff as the focal point for environmental and social assessments. He/She would follow up the E&S Management Plans for each of the civil works contracts and conduct consultation sessions and disclose road plans to the public. A TA will be recruited to provide support to prepare E&SMP for early civil works interventions, whether force account or contracting, and train NHA staff in all relevant aspects of Bank safeguard policies and best practices. A baseline for the component will also be funded. A vehicle and some limited office equipment are also provided for under this sub-component.
ANNEX 4: TRANSPORT SECTOR BACKGROUND

A key aspect about transport is demand as transport services are an input into the production and consumption of other goods and services. The nature of demand in Sudan following peace will differ from the normal situation as demand will not only be determined by ordinary production and consumption but also by the needs of

- peace keeping operations
- the distribution of relief goods
- the return of internally displaced persons
- urgent rehabilitation needs.

9. More generally, the transport development needs to contribute to the cohesion of the country. These other sources of demand will be of overriding importance to the identification of projects in the sector in the short to medium term. This has been the starting point for the identification stage of this project.

10. Another starting point for identifying key transport sector issues is by looking at the various components, which have to be in place to ensure a supply of transport service. These are

- a policy making framework,
- a regulatory framework to ensure reliable and efficient infrastructure services while taking into account social and environmental concerns. There are two-sub-components, viz. the legal framework and the regulators,
- the operators and
- the infrastructure, including the capacity to develop and manage this infrastructure.

Key Issues in the Transport Sector in the North

Context:

11. In the North, the four components referred to above are functioning, although reforms are required. The development agenda is the conventional one facing the infrastructure sector of any country, viz. preservation of infrastructure, development of capacity and systems, and reform to improve safety, security and performance. Because of the war and isolation the needs in this regard are larger than otherwise would have been the case, but the needs are nevertheless conventional.

12. In the South, the four components are non-existent or embryonic. The operators are largely foreign-based and have been ‘pulled’ into the market in order to ensure the functioning of the relief operations. Needs are pervasive in all the four areas identified above.

13. In the Three Areas, the road and rail infrastructure is poorly developed and what is there is in poor condition and/or damaged. The lack of connectivity to the paved roads and rail network in the North are limiting transport operations. The regulatory system, which is part of the national system, is also functioning inadequately.

14. The GONU restructured the transport sector recently by amalgamating the Ministry of Transport and the Ministry of Roads and Bridges (MRB). The responsibility for Civil Aviation was moved to the President’s Office. The new Ministry of Transport and Roads & Bridges (MTRB) is responsible for sector policy and

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7 Abyei, Southern Kordofan, and Blue Nile
oversight over sector organizations under its auspices. The Minister has a State Minister as deputy and all public corporations in the transport sector (except Civil Aviation Authority) report to him including Sudan Airlines, Sudan Railways Corporation, National Highway Authority, River Transport Corporation and Sea Ports Corporation. The Under-secretary is responsible for planning/coordination, financial affairs and administration of the ministry.

**Road Sector**

15. Paved roads in the North were mainly developed during the 1970 and 1980s, and the network reached 4357 km in 2004. The road network in the North also includes about 1000 km of gravel roads. About 2,250 km or about half of the paved road network is in need of overlay or rehabilitation, and more than 100 km of paved roads are in need of immediate reconstruction. Although funds from toll collection have been used to overlay/rehabilitate about 100 km each year, the backlog of preventive maintenance needs have accumulated to the extent that between 400 and 500 km of rehabilitation/overlay per year would now be required.

16. The management of the road network in the North of Sudan is today a responsibility of the National Highway Authority (NHA). It was established by Presidential Decree No.12 (2001) as an agency under the MRB to be solely responsible for planning, construction, rehabilitation and maintenance of all national roads. NHA staff includes about 30 engineers.

17. Staff members of NHA belong to the public service. An experienced engineer in the NHA may get up to the equivalent of US$ 200 per month plus modest allowances, whereas a per-son with the same qualifications would get about ten times this salary in the private sector, for example the oil industry. There has consequently been a considerable drain of qualified engineers from NHA to the private sector and from Sudan in general to neighboring countries due to much higher salaries there.

18. The Government levies a considerable number of taxes and fees on vehicles, fuel, spare parts and tires. The range of license fee and taxes is very wide, but the low cost of fuel is negatively affecting cost recovery in the sector. The government introduced road tolls about 1990 to improve cost recovery. Revenues from road tolls are earmarked for the road sector and NHA administer the funds. Toll fees are collected at 46 toll stations spread over the national road network in the North. All vehicles that pass through these toll stations (except government vehicles) have to pay a weight/distance toll according to vehicle type. The company that collects the charges retains 10% of the total as commission. The rest, 90%, is used for the road sector, including for administration, maintenance and rehabilitation. Road toll revenues have increased and are presently the dominant source of revenue in the sector (about US$ 20 m annually). Funds for new in-vestments (National roads) are allocated from the government budget.

19. The States are responsible for other than national roads (feeder roads, rural access roads).

**Issues:**

20. Inadequate funding for road maintenance and lack of cost recovery is causing loss of road assets. About 2,250 km or about half of the paved road network is in need of overlay or rehabilitation, and more than 100 km of paved roads are in need of immediate reconstruction. Although funds from toll collection have been used to overlay/rehabilitate about 100 km each year, the backlog of preventive maintenance needs have accumulated to the extent that between 400 and 500 km of rehabilitation/overlay per year would now be required.

21. Inadequate enforcement of Axle Loads restrictions is accelerating road deterioration. The Highway Protection Act was ratified in 1993 but not made effective until 2001. The act specifies maximum weight as well as the maximum overall length of any vehicle (24 m). The authorities have been reluctant to enforce the law and there seems to have been an agreement between transporters and the Ministry to invoke the act gradually and not
in full before 2005. Many vehicles today exceed the maximum length. These long vehicles were imported some years ago when there were no restrictions. However, today all imported vehicles have to be approved by the Ministry.

22. Six stationary weighbridges have been installed and are operated by a public company. Three more weighbridges will be installed in the near future. Heavy overloading contributed substantially to the premature deterioration of the Khartoum-Port Sudan road that was rehabilitated in the 1990s. Weighbridges are operated 24 hours per day, weighing gross vehicle weights of up to 120 tons, but are not equipped to weigh single axles or bogies.

23. The extreme low density of roads per km square in war-affected areas, and the very poor quality of major (secondary) access roads to the paved highways in the North causes isolation that creates and sustains poverty. Addressing rural isolation by improving road access and reducing the infrastructure deficit in other sectors are key elements in any poverty eradication strategy and in integrating the Three Areas with the rest of the country. Marginalized areas of the North face a more pronounced challenge than other areas in terms of building infrastructure from a very basic level.

24. The roles and responsibilities for management of national roads in the South are unclear. In terms of the Power Sharing Agreement, international and inter-state roads are a national responsibility. Intrastate roads are a responsibility of the states. The powers of the GOSS include on the other hand the reconstruction and development of the South Sudan as a whole. A proposal made in the JAM report for Infrastructure is for MTRB to delegate responsibility for 'national' roads from the new ministry/owner (GONU) to the GOSS. This would at least require changes to the law empowering NHA. By implication, the ownership of all national roads and budget responsibility would remain with GONU. However, in all other respects GOSS would manage the national roads as well as 'regional' roads in the South as an owner. In this way, the current arrangements in place in the South can serve as a basis for implementing the SETIDP as well as other road projects.

**Railway Sector:**

25. The Sudan Railway Corporation is managing and operating a railway network of about 4,578 km of which about a third is not in operation presently. SRC’s operation has been in a steady decline since the 1960s due to losing traffic owing to competition from the trucking industry. Besides this, managerial and operating inefficiency, poor locomotive maintenance, labor union intransigence and internal conflict have exacerbated the situation by reducing rail transport capabilities. There were several external interventions to alleviate these problems, including World Bank investments and TA. These were not entirely successful and SRC reached its nadir in 1990/91. This was followed by a deterioration of Sudan’s relations with the donor community in the 1990s and external financial support petered off. Formal sanctions were imposed by the United States of America (US) in 1997. This has had an impact on SRC’s ability to procure needed spare parts and equipment directly from the US, and thus its carrying capacity. The condition of the railway has been deteriorating, though SRC has developed a series of investments with private sector participation (PSP) to tide over these difficulties. Throughput has stabilized at about a billion ton-km (tkm) per year. Staff productivity levels have been very low by African standards and only about a half to a third of the levels in Tanzania for example.

26. The Ministry of Transport and Roads & Bridges is responsible for overall policy formulation in the sector. The SRC submits performance targets before the start of each year, and the Ministry reviews regular reports and monitors the operation. The Ministry of Finance and National Economy (MFNE) has the task of coordinating GONU capital inputs in the railway. This includes allocations of bilateral loans and credits for railway development or equipment. The Ministry also has a representative on the SRC Board of Directors.

27. Presently, SRC is free to market its services and charge customers tariffs without interference from the Government. Similarly, private sector freight operators (the PSP entities) are free to charge whatever tariffs they...
desire from their customers and pay SRC the ruling tariff for the consignments (tonnage) carried point-to-point. In the case of passenger services the private sector operators charge tariffs with regulation by SRC.

28. The General Manager is responsible for the administration of SRC in accordance with the policies of the ten member Board. Though the Board has representatives from Government stakeholders it does not have anyone specifically representing major users. The headquarters of the railway is at Khartoum and its principal operating and maintenance centre is Atbara, 313 km North of Khartoum. Five Deputy General Managers (DGMs) report to the General Manager. The railway is divided geographically into five Regions each headed by a Regional Manager supported by regional staff pertaining to the major railway functions. The regions are Eastern (Port Sudan), Northern (Atbara), Central (Khartoum), South (Kosti) and Western (Babanusa). The effective span of control of the GM is, therefore, substantial.

Issues:

29. There are 152 locomotives in SRC of which 58 per cent are between 20 and 25 years old. Of the 111 main line locomotives only 24 per cent are less than 20 years old. With low track quality, high ambient temperatures and dusty conditions it is not reasonable to expect high performance considering that SRC locomotives are by no means well maintained. In 2003, 52 locos were operating, achieving on average 47,580 km. Though the total number of wagons on the railway’s books is 7,578 about 44 per cent is older than 60 years and must be well past their working life.

30. SRC is bound by practice to follow the wage norms of civil service. As a result, wage or pay scale revisions of the government almost automatically get replicated in the railway, irrespective of whether such changes are affordable. The financial performance of SRC is also negatively affected by the high proportion of revenues spent on staff salaries being the root cause of lack of funds for maintenance and renewal. Further, the audited Balance Sheet as of end 2003 indicates that SRC was owed about US$ 12 million, a figure equivalent to about six months turnover. It also owed creditors (other than long-term loans) about US$ 37 million, equivalent to nineteen months revenue. This is not a sustainable situation.

31. Summary

- Shortage of funds for spare parts resulting in inadequate maintenance and replacement of assets.
- Difficulties in procuring locomotive spares emanating from US sanctions imposed in 1997.
- Reduced availability and reliability of rolling stock owing to the above.
- Problems exacerbated by poor track conditions, also caused by shortages of funds for renewals.
- Reduced revenue owing to lower freight throughput.
- High expenditure on staff.
- Competition from road traffic particularly on the core Port Sudan to Khartoum route.

Inland Waterways:

32. The Nile River, traversing Sudan from south to north, provides an important inland transport route. Its overall usefulness, however, has been limited by natural features, including a number of waterfalls (cataracts) in the main Nile between Khartoum and the Egyptian border. The White Nile to the south of Khartoum has shallow stretches that restrict the carrying capacities of barges, especially during the period of low water, and the river has sharp bends. Another impediment has been the spread of the water hyacinth, as well as the lack of dredging. Man-made features have also introduced restrictions, the most important of which are dams upriver from Khartoum and on the Blue Nile, and the river has been little used from Khartoum to the old port of Kosti, which has a railroad connection and is on the national road network. At present only two sections of the Nile have commercial transport services on the Southern Reach, Kosti to Malakal, which is served regularly and also between Malakal and Juba, a distance of 936 km.
Operation of Services and Facilities

33. Transport services on tributaries of the White Nile (the Bahr al Ghazal and the Jur River) to the west of Malakal were discontinued during the 1970s mainly because of the fast-growing water hyacinth. Occasional services to Bentiu on the Bahr el Ghazel apparently took place until a few years ago.

34. The public River Transport Corporation (RTC) are now operating the river transport facilities. Before they had been managed by the SRC, essentially as feeders to the rail line. The RTC serves also as the operator of river ports, while construction of river ports are undertaken by the Sea Ports Corporation based in Port Sudan. RTC has its headquarters in Khartoum, but also one headquarters for the Southern Reach at Kosti and for the Northern Reach at Karima. RTC in addition maintains representation at the port of Juba among others.

35. A number of private operators mainly based at Kosti and Malakal, are providing services on the Southern Reach, but the RTC, which had a monopoly by law until 1990, still appears to be the dominant operator. RTC and private operators use (push) tugboats and barges to move traffic. Typically, a RTC tug boat will move four barges, with a loading capacity of up to 500 tons, which is reduced in the period of low water to 300 tons between Malakal and Juba.

36. The Inland River Navigation Directorate (IRND) is responsible for the public functions along the river, including safety, dredging, navigation aids and the registering of vessels and barges. It has a staff of 40, but lacks staff with the required qualifications. Its base is at Khartoum.

37. During the 1970s, roughly 100,000 tons of cargo and 200,000 passengers were carried annually. By 1984, before the Southern Reach was closed, the number of passengers had declined to less than 60,000 per year and the tonnage to less than 50,000. Although no statistics were available, the closing of the Southern Reach had, by 1990 made river traffic insignificant.

38. The RTC fleet comprises the following (including at locations other than the Southern Reach):
   - 17 push tugs (2000 tons/unit), of which 11 are operational
   - 9 Launches of which 3 are operational
   - 76 general cargo barges (500 ton/unit), of which 46 are operational
   - 11 flat deck barges (120 ton/unit); 4 operational
   - 28 fuel barges; 11 operational
   - 4 passenger vessels; 1 operational
   - 3 passenger barges; 3 operational
   - 7 river buses; all operational

39. The private operators, most of which are based at Kosti, have about 25 units in all comprising pushers and barges, some of which are flat deck.

River Ports

40. Generally, all river ports today lack equipment for loading and unloading, and whatever was there before is out of order. Loading and unloading is hence done manually and is very time consuming.

41. Old Kosti port has a main quay with a port shoreline of 800 meters, 115 m of which consists of a vertical quay wall of masonry construction equipped with mooring rings and track for cargo handling cranes. Rail sidings pass along the quay wall on both sides of the sheds in the port but are out of service and require rehabilitation.
The port is mainly served by trucks today. Kosti dockyard provides repair services for boats and engines of small and medium range. The workshop is poorly equipped and machines are dated. There are three fuel depots.

42. The port in Renk is made up of a mooring facility. It consists of an unprotected earth mole extending about 100 m into the river. The mole head serves as a berth.

43. Malakal port suffers no siltation problems and consists of a concrete structure measuring about 300 m, including a stone revetment on the embankment, which flows over into an 8 meter wide berme. Juba had a 430 m long curved unprotected slope waterfront, at which the barges could moor. This port is not used any longer as lack of dredging since the mid-1980s has resulted in considerable siltation. The unloading has hence had to move to another place, which is no more than a stretch of riverbank.

River constraints

44. There are hardly any navigation aids along the river today. At some places between Kosti and Malakal there are buoys to guide vessels through narrow channels and navigation signboards have been placed on the embankment and on some islands. There are a number of shoals, many of which are unmarked, but about which information is partly available from earlier studies. It is likely that there are additional shoals. Navigation constraints between Malakal and Bor comprise one known shoal. The navigation constrains to the south of Bor are mainly caused by inadequate water depths following low discharge volumes. The river section between Juba and Terakeka, about 74 km, is the most critical for navigation. The water depths could be as low as 0.3 m during periods of very low water discharge. But generally adequate channel width and water depths of more than 2.2 m have been measured. The stretch between Malakal and Gemmeiza (south of Bor) is characterized by a number of sharp bends.

Key Issues:

45. Unclear shearing of responsibilities in the Power Sharing Agreement. Inter-state waterways transport is a national power, while river transport is a concurrent power. The interpretation of this is not straightforward. The infrastructure (e.g. dredging of and navigation aids on the White Nile) may be a national responsibility, whilst the concurrent power refers to the regulation of operators, and perhaps operations. There is no reference to river ports. There is, therefore a need to address these unclear roles and responsibilities in a study that is also addressing role of the private sector in river transport and port operations, and also the status of IRND and its powers and operating arrangements. It is to be noted that GOSS and MTRB reported to the March 2006 Sudan Consortium Meeting that they are to form a Joint Coordinating Committee to resolve issues such as this and to also ensure information sharing on their investment programs. The MTRB is understood to be in the process of convening the first meeting of this Committee.

46. Inland waterways transport offers a very good potential for providing inexpensive transport services between the North and the South of Sudan. To build a paved road in Sudan costs at least US$ 350 000 per km. Preliminary studies suggest that rehabilitation of the Southern Reach (altogether more than a thousand km in distance) will cost in the order of US$ 100 million (exclusive of tugboats and barges). In terms of money, that would only suffice for constructing about 300 km of paved road in those parts of South Sudan where road building materials are readily available. Along the White Nile south of Malakal, the sub-grade is unsuitable for road construction without treatment and good materials hard to find.

47. Based on earlier studies carried out during the 1980s and before it is possible to obtain an impression of the river, and its depth as well as the location of shoals, rocks and other bottlenecks. These studies are now dated and the passing of time and the nature of rivers imply that it is necessary to fully map out the river again. In the first instance the route between Kosti and Juba, as a basis for determining the location of navigation aids, the need for dredging, and the preparation of charts as well as to enable Safe River transport in general. It is therefore, proposed that a hydrographic survey is carried out.
48. A primary concern of the RTC is the number and demographic composition of RTC’s river captains. The complexity of the Nile River (particularly the Sudd) and the absence of navigation aids along the route necessitate highly skilled river captains to negotiate the passage. Due in part to the war, there has been no comprehensive program of training for new captains, the result being a heavy reliance on older experienced captains who are nearing retirement. The study on policy and institutional arrangements proposed should also review the manpower development needs in the sub-sector. This review will not only consider the need for captains and other staff of the operators, but also the needs of the regulatory body (IRND) and river ports.

Transport Services.

49. Significant improvement can be achieved in the performance of road transport and multi-modal operations by developing the current regulatory framework for contracting for transport services. The post-conflict situation also makes it necessary to review international road transport operations. These issues are proposed to be addressed under Part D of the Project by way of a new (road) transport policy. Both the North and the South need to develop a regulatory regime for public transport in urban areas. The review of policy and regulatory framework would be including under the MTRB components, all of which is TA.

50. Within Northern Sudan, markets for road transport services are differentiated into six distinct segments. A unique set of rules apply to each of these market segments, and have a significant and direct effect on both carrier and market performance:

- **Product markets**, i.e. the transport of e.g. milled grain products, sugar, cement, other building materials, second hand clothes, dairy products and meat. A noticeable feature affecting this segment is that motor carriers do not operate as agents of either the shipper or the consignee, and do not offer warehouse services. The consequence of this condition is that transaction costs are high.

- **Construction project markets**: Large-scale construction activity has been brisk in Sudan over the past three to four years. Importantly, participants, including transport contractors, in large construction projects are allowed significant tax incentives under the Investment Incentive Law. Tax incentives apply, for example, to imported heavy trucks. As a result, a significant portion of Sudan’s heavy truck fleet enters the country to support tax preferred construction projects.

- **Government service markets**: The government continues to be the largest single purchaser of goods and services in the country. Much of this buying is done through various methods of public procurement.

- **Emergency food and other relief products markets**: Among all of the market segments, the donor market segment is the fastest growing in North as well as in South Sudan; see below. Emergency food relief is administered separately and differently in Northern and South Sudan. Demand for truck transport of aid continues to outmatch supply. The WFP is addressing this issue by importing its own fleet of heavy trucks: 200 arrived during October, 2004. It plans to provide these vehicles to its contract carriers on a lease and service buy back basis.

- **Export and import markets**: Most import and export trade is conducted on a CIF basis (in the case of imports) or FOB basis (in the case of exports). Hence, buyers and sellers based in Sudan are responsible for selecting inland carriers and for absorbing the resulting freight costs.

- **Passenger service markets**: Public transport is limited except in and between major urban areas. Inter-city bus service between major cities is regular and inexpensive. Intra-city bus service in the major urban areas is generally regular. However, most buses and bus stops are unmarked. Public transport service to communities in
the interior is usually limited to irregularly scheduled mini-buses. Most rural communities in the interior have no public transport at all.

Supply of transport services
51. Although it is a relatively new industry in Sudan, long haul trucking industry is quite strong both economically and politically. A strong lobby has built more highways and continued a shift in modal dependence to highway transport. Road building has become a growth sector within Sudan’s economy, along with highway services for both goods and passengers.

52. A thousand or so private carriers supply the road transport services in Sudan. The public sector does not have a presence either in the trucking industry or the bus segments of the transport market. Carriers are organized by mode and by function under the Chamber of Transport, which is one of the primary branches of the Chamber of Commerce. The Chamber of Transport also acts as the primary liaison between for hire carriers and the agricultural and industrial sectors which transporters serve. This liaison is particularly active between the Petroleum Chamber, the Chambers for Sugar Refining and Edible Oils since the rate structures for heavy liquid cargo trucks are regulated on a cost of service basis as are prices for gas, diesel fuel and kerosene.

Economic Regulation
53. Formal barriers to entry are minimal in the trucking and bus transport sectors of Sudan's economy. Importantly, formal set up costs are relatively low as well. Given liberal market entry conditions markets for highway transport service providers tend to be efficient.

54. Business licenses for for-hire motor carriers or bus companies are provided by the Ministry of Justice provided that applicants show documented proof of their having joined the appropriate Chamber of Transport. Membership in a Chamber requires an applicant to possess valid operating licenses for its vehicles. For this, the vehicles must pass an annual safe vehicle operating inspection. The Traffic Police within the Ministry of the Interior performs this inspection function. The carriers must also produce a prepaid insurance policy.

55. The primary restrictions which exist with respect to market entry are not generic but are imposed within the specific market niches described above. Thus, for example, the number of motor carriers whom the WFP engages under contract is limited by the terms and conditions of that agency’s competitive tendering process. Similarly, entry into the construction services market is limited by the conditions which general contractors require from their subcontractors. Similarly freight forwarding and/or shipping industry managers establish barriers to entry into the international segment of the market.

56. The situation for bus operators is slightly different. Bus service providers are free to enter or exit the intercity bus market without cause. What markets do exist for intercity passenger transport in Northern Sudan is therefore open and contestable.

Price regulation
57. No price regulation applies to Heavy Trucks (Dry Cargo), to Lorries and Light Trucks or to intercity bus operators. Competition within the trucking industry is based primarily on prices offered for point to point truck load service. Large scale shippers including most prominently the WFP and petroleum product distributors and sugar refineries tender their freight requirements to large carriers. The WFP, for example, primarily deals with the five largest carriers. Subsequent to competitive awards based on acceptance of service terms and lowest offered price, carriers are required to comply with the terms of their contracts.
Vehicle regulations

58. Data provided by the Chamber of Transport, shows that currently there are 5,500 heavy dry cargo trucks, 1,200 tank trucks, 900 buses and 10,000 lorries registered for operation in Sudan. No differences exist in the truck and bus regulatory regimes between the North and the South. Both areas require drivers to operate on the right hand side unlike neighboring Kenya and Uganda. Sudan has adopted the truck weight and length regulations which apply generally within COMESA without adopting all of the more detailed regulatory safeguards required to fully comply with COMESA standards.

59. Vehicles operating in Sudan must be registered and have a license. A driver must have an approved driver’s licenses from the relevant authorities. Licenses can be obtained from the traffic police, a customs office, or a branch office of the Ministry of Commerce and Trade. Vehicle registration is carried out by the Inspector of Vehicles (IOV) and the Licensing Board with the approval of the Interior (Home) Ministry.

Issues in the Sub-sector in the North:

- Motor carriers, including owners of warehouses, in Sudan fail to act as effective intermediaries in transferring ownership rights to goods from shippers to consignees and passing on loss and damage risks. Thus, risks associated with the safe and secure delivery of cargos remain higher than they need to be, with adverse consequences for transaction costs.
- One way to increase the nation's freight hauling capacity is to use its transport infrastructure in a coordinated way. Sudan is unique among developing countries in that it has in place the basis for an extensive multimodal transportation service network over which truck/air/water/rail services might be offered under a single bill of lading under the control of a single multimodal transport provider.
- Each individual agency of government has developed its own unique method of procurement and spot buying method and each applies these methods without oversight. Procurement methods vary widely among agencies in their degree of transparency, openness and contestability. This situation is claimed to have resulted in the trucking and bus industry in the North becoming corrupted.
- The taxes and fees paid on imports are the primary instruments, which the government uses to raise revenue, and carriers, freight forwarders and customs brokers operate as the primary collection agents for the government. During the years of conflict taxes and levies imposed on imports and other transported products continued to increase, with the results that Port Sudan has become the “most expensive port on the Red Sea.”
- Public transport within large cities is poorly regulated. For an operator to enter the market for intra-city bus services a license is required and, in some cases, an operating franchise agreement from local municipal governments must also be obtained. The award of service contracts by local government effectively constitutes a franchise, and the requirements imposed on the franchisee effectively constitute the public service obligation of the operator. Passenger facilities are basic and quite crowded, especially during rush hours. Schedules are unpublished and subject to change without notice.
ANNEX 5: PROCUREMENT ASSESSMENT AND ARRANGEMENTS

Background

The JAM report on public procurement concluded that, for the National Government of Sudan, the country’s current public procurement system is deficient to carry out public procurement with economy, efficiency and transparency and to achieve value for money. The Assessment recommended procurement reforms which will include capacity building and logistical support. The reforms will cover use of all public funds by procuring entities, i.e. National Government, State and Local Administrations, Parastatal Organizations, State Owned-Enterprises such as the National Highway Authority (NHA), Sudan Railway Corporation (SRC) and River Transport Corporation (RTC). A Country Procurement Assessment Report (CPAR) is proposed for FY 2007 as a launching pad for procurement reforms.

Summary of key procurement arrangements

1. Procurement under the NETREP consists of Goods, Works and Consulting Services for the three implementing entities namely, the Sudan Railways Corporation (SRC), the River Transport Corporation (RTC) and the National Highway Authority (NHA) The Goods and Works to be financed under the project shall be procured in accordance with the Guidelines for Procurement under IBRD Loans and IDA Credits, May 2004. Consultants Services financed under the project shall be procured in accordance with the Bank’s Guidelines for Selection and Employment of Consultants by World Bank Borrowers, May 2004, The Bank’s standard bidding documents will be used for procurement under International Competitive Bidding (ICB), and for procurement under National Competitive Bidding (NCB) with appropriate modifications. The Bank’s Standard Request for Proposal document will be used in the selection of consulting firms.

2. A GPN will be published in the United Nations Development Business (UNDB) and will be updated annually.

Procurement Capacity Assessment

3. The findings of the capacity assessment conducted by the Bank show that National Highway Authority has adequate experience in public procurement, but it has no experience on procurement under World Bank procedures. There is a need to train NHA staff on procurement following World Bank procedures. Due to its adequate knowledge, the risk is rated as low but because it has no experience in Bank procurement, the risk is rated as Average.

4. Regarding SRC and RTC, their procurement system and procedures are inefficient. They need assistance in every stage of the procurement cycle through a procurement specialist to be hired during the initial stage of the project. Their staff would require significant training on procurement to make these organizations capable of overseeing the procuring of the contracts to be financed under IDA the project. The Risk is high. The procurement units would need to be strengthened in these corporations.

Procurement Environment and Risks

5. Sudan does not have a Procurement Law. Procurement procedures are included in the Financial and Accounting Act 1978 (Article 25) and the Financial and Accounting Regulations 1995 (revised) which encompasses the Procurement Regulations consisting of 11 Articles. The Regulations don’t cover public
procurement procedures and rules in detail. There are no procurement manuals to give more meat to the regulations.

6. The following improvements in bidding procedures will apply to all procurement of Goods and Works under National Competitive Bidding, and other lower procurement procedures in order to ensure broad consistency with the provisions of Section 1 of the Banks’ Procurement Guidelines.

(i) Invitation to bid shall be advertised in at least one national newspaper with a wide circulation, at least 30 days prior to the deadline for the submission of bids;

(ii) Bidding documents shall be prepared in accordance with the Bank approved sample for the proposed procurement;

(iii) Bidding documents shall be made available, by mail or in person, to all who are willing to pay the required fee (where charged);

(iv) Foreign bidders shall not be precluded from bidding and no preference of any kind shall be given to national bidders in the bidding process;

(v) Bidding shall not be restricted to pre-registered firms, if a registration process is required, a foreign firm declared as the lowest evaluated bidder shall be given a reasonable opportunity of registering, without let or hindrance;

(vi) Qualification criteria shall be stated in the bidding documents;

(vii) Bids shall be opened in public, immediately after the deadline for submission of bids;

(viii) Evaluation of bids shall be made in strict adherence to the criteria disclosed in the bidding documents, in a format and specified period agreed with the Association;

(ix) Bids shall not be rejected merely on the basis of a comparison with an official estimate without the prior concurrence of the Association;

(x) Before rejecting all bids and soliciting new bids, the Association’s prior concurrence shall be obtained;

(xi) Bids shall be solicited and contracts shall be awarded on the basis of unit prices and not on the basis of a composite schedule of rates;

(xii) Contracts shall not be awarded on the basis of nationally negotiated rates;

(xiii) Contracts shall be awarded to the lowest evaluated and qualified bidder;

(xiv) Post-bidding negotiations shall not be allowed with the lowest evaluated or any other bidders, except under exceptional circumstances with clearance from the Bank;

(xv) All bidders/contractors shall provide bid/performance security as indicated in the bidding/contract documents;
(xvi) A bidder’s bid security shall apply only to a specific bid, and a contractor’s performance security shall apply only to the specific contract under which it was furnished;

(xvii) Split award or lottery in award of contracts shall not be carried out;

(xviii) When two or more bidders quote the same lowest price, an investigation shall be made to determine any evidence of collusion, following which:
    • if collusion is determined, the parties involved shall be disqualified and the award shall then be made to the next lowest evaluated and qualified bidder and
    • if no evidence of collusion can be confirmed, then fresh bids shall be invited after receiving the concurrence of the Association;

(xix) Bids shall not be invited on the basis of percentage premium or discount over the estimated cost;

(xx) There shall not be any restrictions on the means of delivery of the bids;

(xxi) No firm shall be denied the participation in bidding for reasons unrelated to its capability and resources to successfully perform the contract nor shall it be disqualified for such reasons. Also, larger civil work contractors shall not be prohibited from competing against smaller civil works contractors.

Procedure for Request for Quotations

7. Request for quotations shall be from as many suppliers or contractors as practicable, but from at least three. The request for and quotations shall be in writing and the quotations shall be submitted and opened at the same time. The request for quotations shall contain all required specifications (and drawings, if needed, in case of works), standards, etc. to enable the supplier or contractor provide a complete quotation. Each supplier or contractor from whom a quotation is requested shall be informed of the place, time and method of submission of quotations and whether any elements, apart from the charges for the goods or services themselves, such as transportation and insurance charges, customs duties and taxes, are to be included in the quotations or not. Each supplier or contractor may only give one price quotation and may not change this quotation, once the quotations are submitted and opened. No negotiations shall take place with respect to a quotation submitted by the supplier or contractor.

Bank Guidelines and Standard Bidding Documents

8. Procurement of goods, civil works and employment of consultants will be subject to the provisions of the World Bank Procurement Guidelines for Goods and Works and Guidelines for the Selection and Employment of Consultants (May 2004). Bank’s Standard Bid Documents (SBD) will be used for all ICB contracts and for NCB with appropriate modifications. In the case of small contracts for works, shopping and contracts in community participation, simplified bidding documents based on the SBDs will be used.

Scope of Procurement and Thresholds

9. Civil works generally comprise:
    • Upgrade of Roads: ICB Contracts.
- Road Spot Improvement – Four Road improvement contracts of medium size are expected to be awarded under the project.
- Railway track relaying.
- Dredging of Water course, and.
- Rock blasting in selected stretches of the river.

10. Civil works estimated to cost more than US$300,000 shall be procured through ICB and contracts below that but more than US$50,000 per contract shall be procured through National Competitive Bidding (NCB) procedures acceptable to the Bank. Contracts lower than US$50,000 will be procured through the procedure for quotations described above. However, if foreign firms wish to participate in these contracts, they will be permitted.

11. Goods under the Project would generally include 4 WD vehicles, computer and other office equipment, traffic counters, weigh bridges, special purpose vehicle for pavement management system, laboratory equipment including rotary drilling machine, light falling weight deflectometer, Benkelman beam, various cargo lifting equipment.

12. Goods estimated to cost more than US$200,000 shall be procured through ICB and contracts below that but more than US$20,000 per contract shall be procured through National Competitive Bidding (NCB) procedures acceptable to the Bank. Contracts lower than US$20,000 will be procured through the procedure for quotations described above. However, if foreign firms wish to participate in these contracts, they will be permitted.

13. Consultants’ Services will consist of short and long term technical assistance to support project implementation, various consultancy studies including those related to enhancing private sector participation in both rail and river port services, road sector financing, establishment of pavement management system, feasibility studies and design and works supervision, establishment of an environmental and social safeguards unit and development of an environmental and social assessment framework and provision of advisory services to the Planning Unit of the MTRB.

14. Firms and individuals to provide technical assistance will be selected following the methods described below.

(i) **Quality- and Cost-Based Selection (QCBS)** in accordance with Section II of the consultants Guidelines will be used for all contracts estimated to cost more than US$100,000 equivalent. Shortlists for contracts estimated to cost less than US$200,000 may consist of national firms and NGOs, where available.

(ii) **Least Cost Selection (LCS)** may be used for assignments of a standard and routine nature for accounting, auditing and engineering services of no complex nature.

(iii) Selection based on **Consultants Qualifications (CQ)** may be used for assignments estimated to cost less than US$100,000 and for which the need for evaluating competitive proposals would not be justified.

(iv) **Selection of individual consultants** will be in accordance with the provisions of paragraphs 5.1 to 5.4 in Section V of the Consultants Guidelines.

(v) **Single-Source** Selection may be used for contracts only for emergency situations in accordance with paragraphs 3.8 to 3.11 of the Guidelines for the Selection and Employment of Consultants in the case of firms; and with section (v) Selection of Individual Consultants in accordance with paragraphs 5.1 to 5.3 of
the Guidelines. This may include recruitment of NGOs and UN agencies which possess specific experience relevant for project purposes, as for sections 3.15 and 3.16 of the Consultants guidelines.

Procurement Planning

15. A procurement plan will be prepared by negotiations for all major contracts for key contracts for goods, works and consultants’ services expected under the Project. Procurement under the project will be carried out in accordance with this procurement plan. Procurement plans will be closely monitored and updated on a quarterly basis.

Review of Procurement by the Bank (Table A)

16. For goods and works, all ICB contracts, the first NCB contract for goods and the first contract for works irrespective of value and all contracts awarded on basis of sole source irrespective of value, will be subject to prior review.

17. All Terms of Reference (TOR), all contracts for consulting services estimated to cost more than US$100,000 equivalent, all contracts for individual consultants estimated to cost more than US$50,000, all single source contracts, and the first consulting services contract with individual consultants (by each Agency, irrespective of value) will be subject to Bank’s prior review.

18. All other contracts will be subject to Post-Review by the Bank. Each implementing agency will send to the Bank on a quarterly basis, a list of all contracts subject to post-review.

Capacity Enhancement

19. Immediately after the Grant agreement is signed, the Project will hold a ‘Project Launch workshop: to all implementing Agencies and other participating partners to explain the objectives, outcomes and implementing arrangements and procedures. In this Workshop, procurement arrangements will be explained in great detail. Thereafter, a procurement seminar will be conducted for all procurement staff of the implementing entities, including hands-on training in procurement tasks and processes. Recommendations will be made for specific staff to attend the Bank-supported procurement training at GiMPA or EASMI. As recommended in paragraph 4 above, SRC and RTC will each hire, during the first year of project implementation, a procurement specialist to assist them carry out required procurement.

Procurement Information and Documentation

20. Each Agency shall maintain for each contract, procurement records of the procurement proceedings containing the following information

(i) A brief description of the goods, works or services to be procured, or of the procurement need for which the Agency invited proposals or offers;

(ii) Contract documents, including bidding documents, advertisements, bids received, bid evaluations, letters of acceptance, contract agreements, securities, related correspondence,

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8 A Procurement Plan was provided to the Bank during the Pre-appraisal Mission. This was discussed and the Implementing Agencies were requested that the plan should be updated in line with discussions with the Mission. The plans are expected to be completed during Appraisal.
certified payments, any disputes and information on their resolutions, etc. These records will be maintained in an orderly manner so as to be readily available for audit and any reference.

(iii) Contract progress reports and updated Procurement Plans indicating a comparison of originally planned and actual dates of the procurement actions, and where possible expected completion dates of key activities;

(iv) The names and addresses of suppliers or contractors that submitted tenders, proposals, offers or quotations, and the name and address of the supplier or contractor with whom the procurement contract is entered;

(v) Information relating to the qualifications, or lack of qualifications of suppliers or contractors that submitted tenders, proposals, offers or quotations;

(vi) The price, or the basis for determining the price and a summary of the other principal terms and conditions of each tender, proposal, offer or quotation and of the procurement contract if these are known;

(vii) Evaluation reports and comparison of tenders or proposals, offers or quotations;

(viii) If the tenders, proposals, offers or quotations were rejected a statement to that effect and the grounds for the rejection;

(ix) If the procurement proceedings did not result in a contract, a statement to that effect and the reasons;

(x) A statement of the grounds and circumstances upon which the Agency relied to justify the selection of the method of procurement used;

(xi) In procurement proceedings involving direct invitation of proposals for services, a statement of the grounds and circumstances on which the Agency relied to justify the direct invitation;

(xii) A summary of any requests for clarification of the pre-qualification or invitation documents, the responses received as well as a summary of any modification of the documents; and

(xiii) A record of any complaints received from suppliers, contractors or consultants and the responses received.

21. Procurement Records maintained by the implementing agencies shall upon request be made available for inspection by authorized officials of the Government, Audit Service, Monitoring Agent and World Bank.
<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>Contract Value Threshold (US$)</th>
<th>Procurement Method</th>
<th>Contracts Subject to Prior Review (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Works</td>
<td>Above US$300,000</td>
<td>ICB</td>
<td>All contracts</td>
</tr>
<tr>
<td></td>
<td>US$50,000 to US$300,000</td>
<td>NCB</td>
<td>The First Contract</td>
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<td></td>
<td>Below US$50,000</td>
<td>Selective bidding</td>
<td>None</td>
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<td>2. Goods</td>
<td>Above US$200,000</td>
<td>ICB</td>
<td>All contracts</td>
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<tr>
<td></td>
<td>US$20,000 to US$200,000</td>
<td>NCB</td>
<td>The First Contract</td>
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<td></td>
<td>Below US$20,000</td>
<td>Selective bidding</td>
<td>None</td>
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<td>3. Services and Training</td>
<td>With firms &gt; US$100,000</td>
<td>QCBS/Least Cost</td>
<td>All contracts</td>
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<td></td>
<td>With individuals &gt; US$50,000</td>
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<td>With Firms &lt; US$100,000</td>
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<td></td>
<td>All types of contracts</td>
<td>Sole source and TORs</td>
<td>All contracts</td>
</tr>
</tbody>
</table>

Frequency of procurement supervision missions proposed: One every four months (includes special procurement supervision for post-review/audits). Shortlist of consultants for services less than US$200,000 may consist of only National firms, if available.

| QCBS = | Quality and Cost-based Selection (in accordance with sections 2.1 - 2.28 of the Guidelines) |
| LCS =  | Least-Cost Selection (in accordance with section 3.6 of the Guidelines)                   |
| NA =   | Not Applicable                                                                           |
ANNEX 6: FINANCIAL MANAGEMENT ARRANGEMENTS

1. Introduction:

The financial management assessment was carried out in accordance with the Financial Management Practices Manual issued by the Financial Management Board on 3 November 2005. The objective of the assessment was to determine whether the implementing entities have acceptable financial management arrangements, which will ensure: (1) the funds are used only for the intended purposes in an efficient and economical way; (2) the preparation of accurate, reliable and timely periodic financial reports; and (3) safeguard the entity’s assets.

The financial management assessment was carried out by the Bank financial management team and included interview with key staff at the Ministry of Finance and National Economy (MoFNE), Ministry of Transport, Roads and Bridges (MTRB), Sudan Railway Corporation (SRC), River Transport Corporation (RTC) and the National Highway Authority (NHA) in May 2006.

2. Country context:

Sudan’s almost fifty years of independence have been marked by two rounds of civil war, three periods of military rule and a number of tribal and ethnic conflicts. The twenty year old civil war with the South ended in January 2005 with the signing of the Comprehensive Peace Agreement (CPA). This had been preceded with the signing of the Machakos protocol in 2002, a Wealth Sharing Agreement in January 2004, a Power Sharing Agreement and two significant protocols on key disputed areas in June 2004. The process of implementing these agreements is underway, with the Government of South Sudan (GOSS) having been officially formed in October 2005.

The Government of Sudan at the National level and in the 16 Northern states has a fairly well developed cash based public financial management system. An effective cash rationing system exists with disbursements linked to availability of cash. This ensures aggregate budget discipline at the National level. A monthly reporting system is in place in order to closely monitor government accounts and to avoid overspending. All spending is classified into four “Chapters”. Strict rules establish first priority for release of funds to federal wages and salaries (Chapter I), O&M has second priority (Chapter II), transfers to the states have third priority (Chapter III), and the development budget is last (Chapter IV).

The National Government has traditionally dominated both revenue and expenditure decisions. On average it accounts for around 77 percent of total public expenditures and about 87 percent of aggregate public revenues. As can be expected, there is wide variability in the systems, accounting practices and capacity in the 16 states. The Auditor General of Sudan’s (AGS) Reports on State Accounts highlights the weak capacity that exists in many states. Some of the issues highlighted are the large discrepancies between amounts reported by the National government as having been transferred and what is reported by the States as having been received, unrealistic receipt and expenditure estimates in the budget, large extra-budgetary funds, outdated management principles, poor investment planning and accounting practices.

Some of the challenges facing the Public Financial Management (PFM) system are that:

- The accounting system is almost entirely manual, at both the National level and the States;
- Approximately 50% of the staff have had no formal training in accounting;
- There is no commitment control system;

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9 UN JAM: Sudan: Joint Assessment Mission Report (2004); available at the UN Sudan website.
Budget classification needs to be revised to comply with international norms and to generate the information necessary for financial reporting purposes at the local, state and national levels;

Debt management needs to be improved and the process for approving guarantees needs to be revamped;

Financial and accounting procedures need to be modernized;

Cash management needs to be improved to deal with the chronic cash shortages and periodic build up of arrears;

Revenue management improvements are required for halting the practice of netting of expenditures against revenues as well as offsetting payments by public enterprises;

Reconciliation between accounting and banking figures and the quality of fiscal data needs to be improved;

There are severe constraints affecting the accounting and auditing profession in Sudan. ¹⁰

The legal framework with regard to accounting and auditing needs updating. The Sudan Companies Act 1925 which requires all registered companies to present annual audited financial statements is outdated; and there is a need for substantial revision to the Act in line with the international best practices.

There is no legally mandated accounting and auditing standards applicable to corporate financial reporting in Sudan. The Sudan Council of Certified Accountants, in early 1990s, adopted a resolution requiring its members to observe International Accounting Standards (IAS) and International Standards on Auditing (ISA). Since IAS and ISA do not have any legal backing in the country, different preparers and auditors of financial statements take different approaches to the application of these standards.

Most of the auditors and accountants hardly comply fully with the requirements of international standards. The non-compliance practice is the result of various factors including:

(i) Lack of easy access to the latest versions of International Accounting Standards (IAS)/International Financial Reporting Standards (IFRS), International Standards on Auditing (ISA), related interpretations and implementation guidance.

(ii) Inadequacy of knowledge about practical application of IAS/IFRS, ISA, and IFAC-issued code of ethics for professional accountants.

(iii) Absence of incentive to comply with the requirements—there is no monitoring and enforcement of the application of standards and codes.

(iv) Old fashioned accounting & auditing curriculum and teaching in higher educational institutions.

There is a great shortage of qualified accountants. Sudan has about 40 qualified accountants with ACCA membership, 13 with Sudanese professional accountancy qualification, and about 100 with accountancy qualification from other developing countries (mainly Iraq and other Arab countries). Less than 50 professional accountants are involved in the public practice of accounting, and most of the remaining professionals work in commerce and industry.

Accounting and auditing practices in the public sector are much weaker than the private sector.

3, Overview of program and implementing agencies:

This project focuses on improving the road, rail and river transport infrastructure in Sudan principally the in the North, and complements the SETIDP project which is supporting infrastructure related improvements in Southern Sudan.

¹⁰ World Bank (February 2005). Note on “Need for capacity building to improve Accounting and Auditing Practices” by M. Zubaidur Rahman.
<table>
<thead>
<tr>
<th>No.</th>
<th>Implementing Agency</th>
<th>Component</th>
<th>Cost US$ Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sudan Railways Corporation</td>
<td>Rehabilitation of critical rail infrastructure and services.</td>
<td>41.95</td>
</tr>
<tr>
<td>2</td>
<td>River Transport Corporation</td>
<td>Improvements to river transport services</td>
<td>10.96</td>
</tr>
<tr>
<td>3</td>
<td>National Highway Authority</td>
<td>Road improvements in the Three Areas</td>
<td>89.27</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>142.18</strong></td>
</tr>
</tbody>
</table>

Of the total project cost of US$142.18 million, US$ 48.5 million is to be provided by MDTF and the remainder of about two thirds US$ 93.68 million by GNU.

Several alternative structures were considered while designing the project implementation arrangements. One alternative considered was that of a centralized project financial management unit located in the Ministry of Transport, Roads and Bridges. This was not adopted since it would not help build capacity within the different implementing agencies. After discussions with MTRB what was agreed was that the project would be implemented through three Project Management Teams (PMT’s), located within each of the implementing agencies, viz. SRC; RTC; and NHA.

SRC, NHA and RTC have taken steps to set up their PMTs. All three PMT heads have been appointed and the staffing plans are being finalized. In addition to Project Managers, PMT staff would include senior technical staff (engineers), procurement specialists, financial managers, environmental specialists, and administrative support staff. It has also been agreed with the respective PMT’s that initially there would be full time external experts supporting them in establishing and implementing appropriate fiduciary arrangements.

FM and Procurement members of these teams have also been identified. The Bank team met with the heads of the Finance and Accounting units of these three undertakings. They unanimously supported the option of setting up three PMT’s with qualified staff, adequate resources and a computerized accounting system. They see establishment of the PMT within their entity as only the first step for modernizing their FM procedures and systems. Their expectation is that successful operation of the PMT in implementing the project would enable them to implement modern accounting and procurement systems enterprise wide.

The PMTs being established are responsible for managing all project activities under their respective jurisdictions, including contract management, supervision and quality control, reporting, and administration of project funds. Making payments to suppliers, consultants and contractors, and ensuring that funds are disbursed according to Bank guidelines and procedures will also be the responsibility of the PMTs. The PMT model will provide the skills needed for effective project implementation, and yet permit the reintegration of seconded staff into the respective agency’s structure at project completion.

The summary financial position of these enterprises is as follows:

**Sudan Railways Corporation:** The loss of the SRC increased thrice over during the last four years. (see details in the annex). In 2004 it had a loss of over SD 3 billion (US$13.35 million). A major factor contributing to this is the escalating wage bill, competition from private sector rail service providers, competition from the road sector, and poor capacity utilization and operating practices.

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11 The PMT at SRC would also be responsible for implementing the small component of US$ 1.5 million for the Ministry of Transport and Roads and Bridges.
Liquidity is severely constrained at SRC as operating expenditures are substantially greater than operating income. Wages account for over 77% of operating income - including miscellaneous receipts, and more than 100% of operating income – excluding miscellaneous receipts. SRC’s Annual Report for 2004 summarized the liquidity bind it finds itself in: 12

“In the financial side the year witnessed the huge upsurge in the salaries which was approved by the government for all employees in the public sector. As a result of the huge increases in salaries and allowances, proportion of salaries and allowances from total revenue increased from 48% in the year 2003 to 77.4% in the year 2004. Liquidity position has been affected to a greater extent and the railways forum great difficulty in meeting financial obligations of most of employee allowances.”

Despite the staff strength of SRC having reduced from 14,553 in 1998 to 11,773 in 2004, the annual increase in public sector salaries has put SRC in an extremely difficult liquidity position.

(b) National Highway Authority: With 300 employees in 2005, NHA had an operating income of SD10,601 million (99% from Road Tolls), and easily met its operating expenses (SD 2133 million). (See details in the annexe). It is an organization that is currently implementing large developmental projects (worth SD 7,533 million in 2004) with support from several multilateral banks.

(c) River Transport Corporation: Director (Finance) of RTC provided the Bank with the some financial information that he noted still needed to be fully verified. As per this data RTC has consistently made operating profits, although escalating operating expenses has severely reduced margins. The operating margin of RTC has come down from 45% in 2003 to 6% in 2005.

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12 General Manager’s Statement: SRC Annual Report, 2004
SRC and RTC have not implemented large scale capital development programs in recent years. Even where budgetary provisions were made, release of funding for such programs has been erratic. The example of the Central Bureau of Statistics (CBS) is illustrative - with it receiving only a fraction of its annual outlay for developmental expenditures.

<table>
<thead>
<tr>
<th>Year</th>
<th>Allocation agreed with MOFNE</th>
<th>Actually Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Dinar Mn.</td>
<td>Dinar Mn.</td>
</tr>
<tr>
<td>2004</td>
<td>500</td>
<td>46</td>
</tr>
<tr>
<td>2005</td>
<td>700</td>
<td>107</td>
</tr>
<tr>
<td>2006</td>
<td>1000</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: CBS, 2006

Over the last three years it has received less than 15% of the annual budgetary allocation for development projects. Since successful implementation of this project depends upon both timely and adequate resource flows there is need to link releases from the MDTF with releases by GNU which is funding 66% of project costs.
### 4. Risk Assessment:

<table>
<thead>
<tr>
<th>Inherent Risk</th>
<th>Risk Rating</th>
<th>Risk Mitigation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country does not have a robust PFM system..</td>
<td>S</td>
<td>Special arrangements will be put in place to ensure that Bank funds are safeguarded from weak country PFM systems.</td>
</tr>
<tr>
<td>No Country wide FM diagnostic exists.</td>
<td>S</td>
<td>Reliance is not being placed on country or PFM systems unless additional special arrangements are developed to ensure that project funds are safeguarded. A CIFA is planned for FY07 and its findings will impact the need for additional controls, if any.</td>
</tr>
<tr>
<td>The country does not have adequately qualified FM professionals.</td>
<td>M</td>
<td>Competitive recruitment will be extended to the sub-regional market if adequately qualified staff is not available locally. The selection process will ensure that the PMT is staffed with adequately qualified personnel with supplemental training where needed who will ensure adequate fiduciary controls.</td>
</tr>
<tr>
<td><strong>Entity Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entity Management may interfere with project financial management controls.</td>
<td>S</td>
<td>PMT’s are being staffed with internal experts with external consultancy support. The staffing plan will be designed to ensure that fiduciary systems perform as expected.</td>
</tr>
<tr>
<td><strong>Overall Inherent Risks:</strong></td>
<td>S</td>
<td></td>
</tr>
<tr>
<td><strong>Control Risk:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ministry of Transport and Roads and Bridges and three implementing agencies:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staffing:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Implementing entities do not have the full complement of required accounting staff.</td>
<td>M</td>
<td>Project will support the establishment of three PMT’s with full time support provided by external experts during the start up period.</td>
</tr>
<tr>
<td>b) Accounting staff in these entities does not have experience in World Bank FM and disbursement procedures.</td>
<td>M</td>
<td>Project resources will be made available for the recruitment of qualified accounting staff for the PMTs. Qualifications and experience will be set out clearly in the TOR for the positions.</td>
</tr>
<tr>
<td>c) Public sector salaries may not be adequate to recruit the required competent and capacity building may take time.</td>
<td>M</td>
<td>PMT staff will train government staff to improve their capacity during project implementation.</td>
</tr>
<tr>
<td><strong>Internal Control Procedures:</strong></td>
<td>S</td>
<td>Project will require that FM procedures, with adequate internal controls, be documented in a Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Implementing entities have not documented any of the FM procedures in a manual.</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>a) Implementing entities have not documented any of the FM procedures in a manual.</td>
<td>Implementation Manual (PIM) which will be cleared by the World Bank. The creation of the PMTs with qualified financial staff with specific job descriptions will minimize any control override that may occur under the projects. Frequent Bank oversight and periodic external reviews will be instituted.</td>
<td></td>
</tr>
<tr>
<td>b) FM policies may not be adequate and may not even be in place.</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>c) That management may override any existing controls.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Budgeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) GNU may not provide adequate budgetary allocation, and even if it is provided fund releases may not be timely.</td>
</tr>
<tr>
<td>GNU commitment regarding timely and adequate provision of budgetary funds will be obtained prior to project implementation. After effectiveness, MDTF / GNU releases into the Designated Account and Project Account will be linked, with releases monitored on a six monthly basis.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fund Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Project may not submit withdrawal applications on timely basis, thereby causing possible implementation delays.</td>
</tr>
<tr>
<td>Accounts staff of PMTs will monitor the timeliness of the submission of withdrawal applications.</td>
</tr>
</tbody>
</table>
2. Internal Audit (IA)

| a) The implementing entities do not have well functioning IA units. The PMTs may not establish an IA as part of their operations. | S | The PIM will ensure adequate internal checks to address any weaknesses that the absence of an IA is likely to create. |

**External Audit**

| The audited financial statements of the project will be submitted late. | M | The selection of independent auditors would be completed prior to the end of the first fiscal year. |

**Information Systems**

| A computerized accounting system may not be implemented in a satisfactory manner. | M | The PMTs will implement such a system within six month after their establishment. |

**Overall Control Risk.**

| S |

H-High, S-Substantial, M-Moderate, L-Low

2.1.2 Strengths and Weaknesses

**Strengths**

There is a strong commitment from the GNU to support the implementation of the project. The three PMTs as well as the MTRB will ensure effective project management. The staff of these units have been selected in accordance with agreed TOR satisfactory to IDA. In addition, financial management and procurement experts recruited competitively will support the project implementation process in each PMT. This will ensure speedy and timely implementation of projects. The Monitoring Agent of the MDTF will monitor the PMT’s on a regular basis and ensure that appropriate financial management systems and practices that meet the World Bank FM requirements are being enforced.

**Weaknesses**

As in other post conflict countries, the overall fiduciary environment in Sudan needs to be substantially strengthened. The accounting staff at MTRB and the three implementing agencies have no experience with World Bank financial and disbursement procedures since the bank has been absent from Sudan for around 15 years. The PMTs’ will in the long run be required to build FM capacity within the implementing entities and MTRB. Successful implementation of this project will require ownership and active support from governmental authorities with timely and adequate release of resources.

5. Implementation arrangements:

**FM Staffing for the Project**

The weak financial management capacity at the MTRB as well as in the three implementing agencies is a major area of concern. Building their FM capacity is a longer term objective. In order to ensure efficient, effective and timely project financial management services internally seconded staff to the PMT’s will be against clearly defined TOR’s and their assignment will be subject to a no objection from IDA. The expertise of the internally seconded staff in the 3 PMT’s will be supplemented through open competitive recruitment of 3 FM and 3 Procurement specialists. It will be the responsibility of the implementing agency to recruit this staff component. PMT staff will be trained in World Bank disbursement procedures, to enable them manage the resources of Bank funded projects in Sudan.
6. Project Financial Management

Each PMT will be responsible for the day to day financial management of the project components assigned to it. Each PMT will be staffed with a qualified accountant with experience in project financial management acceptable to IDA. It will establish an effective accounting system that provides for adequate segregation of functions, capable of recording all accounting transactions, and reporting correctly all assets and liabilities of the project. The system should also be capable of producing accurate periodic financial reports including interim un-audited financial reports (IFR) and annual project financial statements.

The project will adopt the cash basis in the treatment and recording of all transactions. In addition, the project will maintain a statement of liabilities outstanding at all times to correctly reflect the projects indebtedness to suppliers and third parties. The financial management system should be documented in a financial accounting procedures manual which must be cleared by the World Bank.

6. Fund Flows, Disbursement and Auditing Arrangements

6.1.1. Budgeting Arrangements

The project will prepare an annual budget for the project based upon the agreed program to be financed by the project. Most of the activities of the key components are already known and these will be included in the project annual budgets. The annual project budget will be reviewed and agreed with the World Bank, and No objections will be issued for only activities agreed in the budget.

6.1.2. Retroactive Financing

In accordance with OP12.10, the Project will be able to charge up to 10% of the grant amount for expenditures occurring on or after July 31, 2006, and up to the grant signing date. The retroactive financing will apply to ALL categories of the Disbursement Schedule.

6.1.3 Flow of funds

Each PMT will open a Grant Designated Account (DA) at a commercial bank, under terms and conditions satisfactory to the IDA. The grant DA can only be opened and operated after the full establishment of the PMT. There will therefore be three designated accounts. The designated account for the project funds will be maintained in Euro. The first year’s disbursement is expected to be US$ 3 million from the MDTF and US$ 6 million from GNU. Upon grant effectiveness, an amount equivalent to four months of estimated expenditures (viz. US$ 1 million) will be deposited into the three designated accounts. The share of the amount to be deposited into the designated account will be determined on the basis of the annual disbursement table (below) Further deposits would be made into these accounts against withdrawal applications supported by appropriate documentation. All three designated accounts will be opened in a single commercial Bank to facilitate accounting of fund flows for the project.

Each PMT will also open a Local Currency Account in a commercial bank. This commercial bank could be the bank with whom the enterprise has existing banking arrangements. Based on approved work programs, the GNU will transfer four months’ estimated expenditures from the Designated Account to these local currency accounts. The initial amount transferred will be the equivalent of US$ 2 million. The advance will be deposited in the three local currency accounts on the basis of anticipated disbursements by the PMT’s and as specified in the disbursement estimate below.
Allocation of Grant proceeds:
The grant will be allocated in the following proportion:

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>SRC</th>
<th>RTC</th>
<th>NHA</th>
<th>% of Expenditures to be Financed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Works</td>
<td>2.72</td>
<td>0.49</td>
<td>21.96</td>
<td>33 and 1/3</td>
</tr>
<tr>
<td>2</td>
<td>Goods</td>
<td>8.62</td>
<td>1.45</td>
<td>0.23</td>
<td>33 and 1/3</td>
</tr>
<tr>
<td>3</td>
<td>Consultant Services</td>
<td>0.54</td>
<td>1.35</td>
<td>3.10</td>
<td>33 and 1/3</td>
</tr>
<tr>
<td></td>
<td>including Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Unallocated</td>
<td>3.21</td>
<td>0.36</td>
<td>4.47</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Total</td>
<td>15.09</td>
<td>3.65</td>
<td>29.76</td>
<td></td>
</tr>
</tbody>
</table>

Disbursement Methods
Disbursements from the Designated Account will be on disbursement methods based on Designated Account Advance, Direct Payment and Special Commitment. These methods will be used at the beginning of the project shift to the quarterly un-audited financial report based disbursement as soon as the Bank will be satisfied with the capacity of the PMT.

Minimum Value of Applications
The minimum value of Direct Payment and Special Commitment will be US$300,000.

Reporting on Use of Credit Proceeds
The supporting documentation for reporting eligible expenditures paid from the Designated Account should be a summary report of the Statement of Expenditures and records evidencing eligible expenditures for payments against contracts valued US$200,000 for goods, US$ 100,000 for consulting firms and US$50,000 for individual consultants and a list of payments against contracts that are subject to the Bank’s prior review. The supporting documentation for requests for direct payment should be records evidencing eligible expenditures (copies of receipt, supplier’s invoices, etc). PMT’s will be required to submit a Bank statement and a reconciliation of the Designated Account together with the withdrawal application on a monthly basis. All supporting documentation for SOEs will be retained at the concerned PMT and made available for review by periodic World Bank review missions and external auditors.

The project will prepare quarterly project interim un-audited financial reports or statements (IFR) in the areas of finance, procurement, including complaints from bidders, and project progress. The financial management system put in place should be capable of producing these reports. The reports are:

The Quarterly Financial Reports: which would consist of a statement of cash receipts by sources and expenditures by main expenditure classifications for the period and cumulatively; cash balances of the project; and supporting schedules comparing actual and budgeted expenditures;
Quarterly Physical Progress Report: include a narrative information and output indicators, linking financial information with physical progress and report on issues that require attention; Quarterly Procurement Management Report: would consist of information on procurement for goods and works and that for consultants’ services and compliance with agreed procurement methods. The report compares procurement performance against the plan agreed at negotiations and appropriately updated at the end of each quarter. The report should also provide any information on complaints by bidders, unsatisfactory performance by contractors and any contractual disputes.

Each PMT will be responsible for preparing the financial reports required as part of the interim un-audited financial reports required to be produced under the project. Individual PMT financial reports will be consolidated by the NHA PMT for onwards transmission to the Bank within 45 days of the end of each quarter. The content and format of these reports will be agreed upon 2 months after the full establishment of the PMT’s.

Financial Statements
The project financial statement shall be in accordance with Generally Accepted Accounting Practice These Financial Statements will comprise of:

a. A Balance Sheet reflecting the assets, liabilities and funding of the project based on the cash bases.
b. A Statement of Sources and Uses of Funds / Cash Receipts and Payments, which recognizes all cash, receipts, cash payments and cash balances controlled by the entity for this project; and separately identifies payments by third parties on behalf of the entity.
c. The Accounting Policies Adopted and Explanatory Notes. The explanatory notes should be presented in a systematic manner with items on the Balance Sheet and Statement of Cash Receipts and Payments being cross-referenced to any related information in the notes. Examples of this information include:
d. A Management Assertion that program funds have been expended in accordance with the intended purposes as specified in the relevant World Bank legal agreement. Auditing Arrangements.

Independent and qualified auditors, acceptable to the Bank, would be selected to carry out the audit of the project. The selection of auditors shall be on competitive basis and in accordance with the Bank's guidelines and would be in place six months after the effectiveness of the project or on an agreeable date after effectiveness.

The project financial statements including movements in the special accounts will be audited in accordance with International Standards of Auditing (ISA) and a single opinion will be issued to cover the project financial statements, SOEs and the special account, in accordance with the Bank’s new audit policy.

The auditors’ report and opinion in respect of the financial statements including the management letter would be furnished to the World Bank within six months of the close of each fiscal year.

Project Implementation Actions:
The following actions are to be implemented as specified:

<table>
<thead>
<tr>
<th>Action</th>
<th>By Whom</th>
<th>By When</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PMT staff in place – both the individuals seconded by the enterprise and those that are to be externally recruited. Monitoring Agent would be required to certify that PMT is adequate staffed for project implementation.</td>
<td>PMT’s</td>
<td>Effectiveness</td>
</tr>
<tr>
<td>2. Banking arrangements satisfactory to IDA have been completed by the three PMT’s.</td>
<td>PMT’s</td>
<td>Effectiveness</td>
</tr>
<tr>
<td>3. PMT to ensure that a financial management</td>
<td>PMT’s</td>
<td>Effectiveness</td>
</tr>
</tbody>
</table>
system is operational, it has adequate fiduciary controls and that supporting documentation and procedures are fully documented and available. This FM system could either be a manual accounting system or an integrated accounting software acquired off the shelf for project accounting. Monitoring Agent would certify that the system is in place, capacity exists for accurately recording transactions, fiduciary controls are robust and that FM and Procurement procedures are fully documented in the Project Implementation Manual for the PMT.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>GNU releases are linked to MDTF releases, and reviewed on a six monthly basis by both the parties. Release by GNU of its share of four months anticipated expenditures into the three Local Currency Accounts would be a condition of effectiveness.</td>
</tr>
<tr>
<td>PMT’s</td>
<td>Effectiveness</td>
</tr>
</tbody>
</table>

**Supervision Plan**

During the first year of the project implementation, intensive World Bank supervision will be required in order to ensure that the project financial management arrangements are in place and functioning. This will be supplemented through regular and intense supervision by the Monitoring Agent. The first supervision mission after effectiveness will take the form of an FM Specialist visiting PMT’s to review systems and operations introduced. There will be a minimum of two supervision missions per year. There will be other FM missions if the situation demands it.

**Conclusion of FM Assessment**

The financial management assessment has concluded that the risk for the project is Substantial and actions have been put in place to ensure that the identified risks are adequately mitigated. The engagement of an externally recruited full time professionally qualified accountant as part of the establishment of the PMT, the requirement for the establishment of systems and procedures by the PMT as part of their assignment, and the agreed auditing arrangements for the project will ensure that the project risks are minimized. This will also require intensive Bank supervision in the first year of project implementation to ensure that introduced systems by the PMT’s are functioning well and that all agreed actions have been fully implemented.
Annex “A” – Operating Results of Implementing Entities

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise</td>
<td>5,479</td>
<td>5,575</td>
<td>5,188</td>
<td>5,786</td>
</tr>
<tr>
<td>Passengers</td>
<td>722</td>
<td>352</td>
<td>394</td>
<td>274</td>
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<tr>
<td>Livestock</td>
<td>7</td>
<td>246</td>
<td>49</td>
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<td>Misc</td>
<td>408</td>
<td>452</td>
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<tr>
<td>Income</td>
<td>6,616</td>
<td>6,624</td>
<td>6,361</td>
<td>7,100</td>
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<tr>
<td>Wages</td>
<td>3,323</td>
<td>3,610</td>
<td>3,792</td>
<td>5,498</td>
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<tr>
<td>Stores</td>
<td>951</td>
<td>1,539</td>
<td>937</td>
<td></td>
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<tr>
<td>Fuel</td>
<td>1,498</td>
<td>1,083</td>
<td>1,272</td>
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<tr>
<td>Depreciation</td>
<td>136</td>
<td>143</td>
<td>147</td>
<td></td>
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<tr>
<td>Misc</td>
<td>1,525</td>
<td>1,598</td>
<td>1,999</td>
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<tr>
<td>Op. Exp</td>
<td>5,767</td>
<td>7,719</td>
<td>8,155</td>
<td>9,853</td>
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<tr>
<td>Other Exp.</td>
<td>147</td>
<td>126</td>
<td>251</td>
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<tr>
<td>Total Expenditure</td>
<td>7,722</td>
<td>7,866</td>
<td>8,281</td>
<td>10,104</td>
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<tr>
<td>Loss</td>
<td>-1,106</td>
<td>-1,242</td>
<td>-1,920</td>
<td>-3,004</td>
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Source: SRA Annual Reports

National Highways Authority – Financial results for 2005:

<table>
<thead>
<tr>
<th>Revenue</th>
<th>SD (Million)</th>
</tr>
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<tbody>
<tr>
<td>Road Tolls</td>
<td>10,484</td>
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<tr>
<td>Laboratory Fees</td>
<td>32</td>
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<tr>
<td>Ministry of Finance {MoF}</td>
<td>2,092</td>
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<tr>
<td>Others</td>
<td>85</td>
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<tr>
<td>Total Revenue</td>
<td>12,693</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Expenditure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter One : Salaries</td>
<td>205</td>
</tr>
<tr>
<td>Chapter Two : Administration</td>
<td></td>
</tr>
<tr>
<td>Running Costs</td>
<td>648</td>
</tr>
<tr>
<td>Purchase of Tangible</td>
<td>1214</td>
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<tr>
<td>Assets</td>
<td>66</td>
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<tr>
<td>Total:</td>
<td>1928</td>
</tr>
<tr>
<td>Development Projects:</td>
<td></td>
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<tr>
<td>Financer / NHA</td>
<td></td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>6,601</td>
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<tr>
<td>Maintenance</td>
<td>932</td>
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<tr>
<td>Sub Total</td>
<td>7,533</td>
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<tr>
<td>Financer / MoF Studies and Construction Total</td>
<td>2,092</td>
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<tr>
<td>---------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Liabilities</td>
<td>115</td>
</tr>
<tr>
<td>Debts</td>
<td>754</td>
</tr>
<tr>
<td>Grand Total</td>
<td>12,627</td>
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<table>
<thead>
<tr>
<th>River Transport Corporation – Operating Results (SD Million)</th>
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</thead>
<tbody>
<tr>
<td>Income</td>
</tr>
<tr>
<td>Passengers (January to March)</td>
</tr>
<tr>
<td>2001</td>
</tr>
<tr>
<td>7.33</td>
</tr>
<tr>
<td>Goods and Baggage</td>
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<tr>
<td>429.76</td>
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<tr>
<td>Vessel Income</td>
</tr>
<tr>
<td>263.33</td>
</tr>
<tr>
<td>Tourism</td>
</tr>
<tr>
<td>1.01</td>
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<tr>
<td>Trading Works</td>
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<tr>
<td>79.43</td>
</tr>
<tr>
<td>Cranes</td>
</tr>
<tr>
<td>1.31</td>
</tr>
<tr>
<td>Deferred Income</td>
</tr>
<tr>
<td>2.52</td>
</tr>
<tr>
<td>Port Fees</td>
</tr>
<tr>
<td>1.41</td>
</tr>
<tr>
<td>Operating Income</td>
</tr>
<tr>
<td>783.38</td>
</tr>
<tr>
<td>Expenditure</td>
</tr>
<tr>
<td>603.26</td>
</tr>
<tr>
<td>Chapter I (Salaries)</td>
</tr>
<tr>
<td>2001</td>
</tr>
<tr>
<td>961.57</td>
</tr>
<tr>
<td>Chapter II (Administrative)</td>
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<tr>
<td>269.72</td>
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<tr>
<td>Chapter II (Operations)</td>
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<tr>
<td>227.08</td>
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<tr>
<td>Chapter II (B) (Capital Expenditures)</td>
</tr>
<tr>
<td>60.25</td>
</tr>
<tr>
<td>Operating Expenditure</td>
</tr>
<tr>
<td>603.26</td>
</tr>
<tr>
<td>Operating Profit</td>
</tr>
<tr>
<td>180.13</td>
</tr>
</tbody>
</table>
The objective of the SEA is to ensure that proposed rehabilitation and construction activities supported by the project will be implemented within a rigorous environmental management framework as well as addressing systemic issues in the sector. Although it is not possible at this time to determine the extent of potential impacts that might result from the proposed activities, it is anticipated that they will be local and temporary. Thus, the SEA is designed to ensure that the appropriate level of environmental management is applied ranging from the application of simple mitigation measures to conducting a suitably scaled environmental or social assessment or analysis. Although resettlement is not anticipated under the project, the opportunity is being taken to help the government develop guidelines for resettlement action plans that may be applied to future projects. In addition:

- All required mitigation measures will be identified by site specific Environmental Assessments (EAs) disclosed and implemented prior to the start of land clearing or construction. In this regard, all detailed designs of affected works will include preparation of an appropriate EA;
- Mitigation measures proposed in the detailed designs will be part of the civil works contracts; and
- Whilst no resettlement or land acquisition is anticipated for the first phase of the project, where an EA or pre-construction field investigation reveals that there are people needing to be relocated or land to be acquired, a Resettlement Policy Plan (RAP) will be prepared, approved by the Bank, disclosed and implemented prior to the start of land clearing or construction.

To monitor compliance with environmental and safeguards requirements, the Monitoring Agent will prepare monitoring and evaluation reports relating to these requirements. These reports shall be distributed to and discussed with the Environmental and Social Safeguards Unit in the MTRB and implementing agencies. The conclusions reached on the report and agreed action shall be compiled and made available to the Environmental Management Task Force that will be set up under the project.
ANNEX 7.1: TORS FOR AN ENVIRONMENTAL AND SOCIAL ASSESSMENT FRAMEWORK (ESAF).

1. INTRODUCTION

The Government of Sudan is in the process of preparing a project for the transport sector covering rehabilitation of road and rail infrastructure (including bridges), river transport and port container traffic. The project, called the National Emergency Transport Rehabilitation Project (NETREP), is designed to cover the period from August 06 to December 08 and is to be implemented by the Ministry of Transport, Roads and Bridges (MTRB), National Highway Authority (NHA), Sudan Railways Corporation (SRC), River Transport Corporation (RTC) with some involvement of the Inland River Navigation Department (IRND) and the Sudan Seaport Corporation (SSC) and funded by the World Bank. The MTRB now requires the services of a team of consultants to conduct an Environmental and Social Assessment Framework (EASF) covering environmental and social management needs for both the proposed NETREP components and future sector operations.

The ESAF will involve: reviewing Sudan’s environmental laws and regulations and baseline conditions; identifying generic impacts of transport sector operations and necessary mitigation measures; defining institutional arrangements for mainstreaming environmental and social safeguards within the sector while ensuring cross-sectoral integration; stipulating actions to strengthen environmental planning and management capacity and organization; and, providing a framework for incorporating environmental and social concerns into long-term development and investment planning and policy. Environmental Guidelines will be completed for each of the transport sub-sectors covering roads, railways, ports (inland and coastal) and airports (guidelines being completed for the road sector in Southern Sudan will be integrated into the Guidelines).

The assignment will be carried out in compliance with requirements of the Government of Sudan (GoS) and the World Bank. It will build on the Government’s existing environmental laws and regulations and World Bank Safeguard Policies covering social and environmental dimensions, including health and safety.

2. BACKGROUND

NETREP consists of three parts covering physical interventions in three sub-sectors: Component 1 comprises railway related components; Component 2 includes sub-projects related to river transport, in particular the Kosti - Juba corridor; and Component 3 deals with road sector related activities. Components 1, 2 and 3 would be implemented independently by the SRC, RTC and the NHA respectively. Included in Component 1 also are activities related to improving (i) multi-modal operations; (ii) the capacity of the MTRB to manage the sector; and (iii) establishment of an Environmental and Social Safeguards Unit and conduct of a Sectoral Environmental and Social Assessment Framework (ESAF). The Sea Port Corporation (SPC) will assist RTC with port development activities (civil works) and the Inland River Navigation Department (IRND) with oversight of the planned dredging and hydrographic survey studies. In addition and related to NETREP, there is support proposed under the Technical Assistance Facility (TAF) to carry out a Transport Master Plan which new policy directions will be defined and the supportive institutional, legal and regulatory frameworks and development plans will be elaborated. This activity would be managed by MOTRB with close involvement of the above sector agencies.

The project is to be implemented in phases (programmatic approach), with the commencement of each phase dependent upon funding availability and readiness for implementation. This project description covers what is to

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13 Environment includes conditions covering physical, chemical, biological and socio-economic factors likely to be impacted by development actions.
be financed under Phase 1. The activities, costs and implementation period for Phases 2 and 3 as presented below are tentative and subject to change. When MDTF funding for these phases becomes available, the components will be firmed-up and presented to the OC for financing approval.

Component 1: Rehabilitation of critical rail infrastructure and services

This component comprises of: (i) Rehabilitation of Babanousa-Wau Railway Line; (ii) rehabilitation of Bridge Number 353 on the Khartoum to Port Sudan rail section; (iii) rail connections to the container depot in the Damadama area of Port Sudan; (iv) improving rail connections at existing and new Port at Kosti; (v) studies on enhancing private sector participation in railway operations; (vi) project management; (vii) enhancement of sector management capacity; and improving inter-modal operations at Port Sudan.

Component 2: Improvements to River Transport Services

This component comprise of: (i) Provision of Equipment in Support of Port Operation; (ii) concessioning of the new port at Kosti; (iii) study to establish emergency dredging and navigational needs; and (iv) support for project implementation including targeted institutional development and capacity building.

Component 3: Road Improvements with focus on the Three Areas

The component has the following elements: (i) program of spot improvements on Kadougli to Kaouda road (135 km) and section 2 of the E’ Damazin to El Kurmuk road (55km) and Hamashkaired to El Gahwa road (90 km); (ii) detailed design of Abu Jubayah to Talodi to Kadugli road (310 km), Damazin to Geissan road (160 km) and Toker to Garora road (215 km); (iii) feasibility studies and detailed design of Geissan to Kurmuk road (160 km), Damazin to Renk road (200 km), Kadugli to Hegleig road (170 km), and Muglad to Abyei road (160 km); (iv) project management and institutional development and capacity building including (a) carrying out of various studies on sustainable road sector financing, road safety and axle load control, (b) establishment of pavement management system, (c) improvements to materials testing laboratory, and (d) training, workshops, study tours and targeted TA.

LAWS, REGULATIONS and GUIDELINES

The EASF should identify and comply with any Sudanese laws and regulations and Bank safeguard policies likely to govern the conduct of the assessment. These shall include but not be restricted to the following:

- Environmental Health Act (1975), amended (1993)
- Road Traffic Act (1983)
- Antiquities Ordinance (1952)
- Industrial Safety Act (1978)
- Terrestrial Waters and Continental Shelf Act (1970)
- River Transport Ordinance (1958)
- Lands and Planning Act (1994)

The Higher Council for Environment and Natural Resources (HCENR) has developed by-laws for the Act and these are currently under review.
• World Bank Safeguard Policies, including: Environmental Assessment (OP 4.01); Natural Habitats (4.04); Forestry (OP 4.36); Pest Management (OP 4.09); Involuntary Resettlement (4.12); and, Cultural Property (OP ..).

OBJECTIVES

The overall objective of the EASF will be to ensure that Sudan’s environmental legislation procedures and the Bank’s environmental and social policies are effectively applied to the preparation and implementation of individual EAs for the project components and that in-country capacity and administration is sufficiently enhanced to guide environmental planning and management in the transport sector over the longer term. It will also provide transparency in the planning/decision-making process, including public participation. More specifically, the purpose of the EASF will be to:

• Demonstrate the objectives and functions of the EASF process, its integration with the implementation of transport policy and development programs, the project cycle and regulatory and administrative procedures (capturing cross-sectoral impacts) to support the incorporation of environmental and social concerns into project preparation and implementation and overall investment planning;

• Identify major environmental (biophysical, health and safety) and social issues (including direct, indirect and cumulative impacts) that relate to sector project planning, construction, upgrading, rehabilitation and maintenance and that are likely to affect investment decisions;

• Review existing/proposed national environmental policies and regulations and transport sector policies and the investment planning process (objectives, methodology and procedures for review and approval of plans and projects) and World Bank environmental policies and guidelines and identify gaps/complementarities issues;

• Review current institutional arrangements for conducting environmental/social planning and management across the transport sector covering roads, railways, ports (inland and marine) and airports and recommend pragmatic measures to sustain the effective implementation of environmental assessment and other safeguards. In keeping with the Environment Act, 2000, propose institutional arrangements (formation of an environment/social unit or equivalent and staffing needs) to support safeguards management in the sector while ensuring cross-sectoral interaction and integration; TORs should be provided for the functions of the unit within the MTRB, including environmental/social review of investment operations and policies for compliance with legislation and safeguards, training and capacity building, promoting the use of Environmental Guidelines to be developed under the project, and ensuring coordination across the sub-sectors and with MEDP and HCENR and other institutions as appropriate. The unit should serve a steering committee for review of policy or project issues and recommend appropriate actions.

• Provide a Transport Sector Environmental and Social Management Framework for implementation by the MTRB. This shall include priority measures to mainstream environmental and social assessment in the sector and enhance and upgrade overall environmental performance for the short and long term, including strengthening capability, establishing training programs for staff (engineers and technicians), consultants and contractors in the transport sector and determine human and financial resources requirements for a five year horizon;

• Provide practical Environmental Guidelines to integrate environmental and social assessment into the transport project cycle, covering routine maintenance, periodic maintenance and upgrading and new infrastructure. This shall include:
• Establishing a process, as part of environmental and social assessment, to undertake an analysis of alternative investment options and strategies in terms of associated environmental and social costs and benefits (this is particularly critical to addressing cross-sectoral/cumulative impacts);

• Outlining requirements to conduct consultation and public participation and awareness;

• Detailing requirements for the production of Environmental Management Plans (EMPs) and Resettlement Action Plans (RAPs), particularly responsibilities for implementing mitigation measures, monitoring, scheduling, costs, etc;

• Provision of input into operational manuals as guidance of PIUs, consultants, contractors, etc. and contract clauses for the implementation of environmental protection measures;

• Establishing a program to monitor the implementation of EMPs and RAPs – including enforceable protection measures that may be incorporated in the clauses of civil works contracts --with performance indicators and needed reporting arrangements;

• Providing mechanisms to review the adequacy of EMPs and RAPs and effectiveness of consultation and public participation; and

• Providing guidance in undertaking an evaluation of EAs/EMPs and RAPs and how lessons learned may help improve the processing of future investments.

A separate document will be completed on Resettlement Policy Framework

• The consultant should ensure that frequent discussions are held with key stakeholders during the assignment and conduct workshops with relevant stakeholders on the draft Environmental Guidelines and recommended institutional arrangements, capacity strengthening and longer-term needs, to garner support for implementation under the project.

• A final chapter should provide conclusions and recommendations concerning the integration of environmental and social safeguards in transport sector projects, institutional reform and capacity building and training.

SCOPE OF SERVICES

The Consultant shall regard the completion of the individual EAs for the project’s investment components as a priority. For the rest of the assignment, the following paragraphs should serve as a guide and in no way limit the responsibility of the Consultant in achieving the overall purpose stated above, namely to: demonstrate how to integrate environmental and social concerns with short- and long-term investment planning needs of the sector; define and recommend institutional arrangements and strengthening capability and a framework for environmental planning and management in the sector and the MEPD/HCENR, as appropriate; and, produce the Environmental Guidelines.

Scoping

This involves scoping of the sector’s field of influence, activities and potential generic impacts that will have to be studied to complete the assignment. Accordingly the Consultant will briefly describe and evaluate the current environmental/social situation of the country, including:
- An overview of biophysical and socio-economic aspects, including areas of high priority for conservation of natural habitats, including protected areas such as National Parks, Game Reserves, etc., fragile ecosystems, demographics, ethnicity, gender aspects, HIV/AIDS etc. The Consultant will identify sensitive state/district biophysical/socio-economic areas within Northern Sudan likely to be impacted by transport sector development;

- An overview of national environmental policy, legislation and regulations relevant to the Transport Sector;

- A review of institutional arrangements and capacity (including training needs) within the MTRB, and the MEPD), other relevant government institutions and the private sector to monitor and enforce environmental legislation and to review and help prepare and implement EAs for investment projects; and,

- A review of mechanisms for public consultation and participation.

**Description of the Proposed Transport Sector Project**

A description of the proposed project is given in the document entitled *Final Project Proposal for the National Emergency Transport Rehabilitation Project* and this should be consulted for its relevance to the assignment, especially regarding the administrative framework in the implementing agencies, project planning and implementation procedures as well as technical design, and how these aspects may be better organized so that the environmental/social implications of the proposed components can be easily identified for the purposes of conducting environmental/social assessments at policy and project levels.

**Baseline Data**

The Consultant will briefly review the current environmental situation in Sudan, including environmental information relevant to the project. One important issue is biodiversity conservation and this section of the SEA should identify areas of special sensitivity to disturbance likely to result under the project and future planning and investments, e.g., the protection of wetlands, coral reefs and other sensitive ecosystems.

The Consultant will identify areas of high priority for conservation of natural habitats, including protected areas such as National Parks. This would include, among other reviews, an inventory of protected areas, ecosystem types (forest, savannah) cultural heritage sites, etc. Major information/data gaps relevant to the transport sector should be noted.

Further analysis will include assessments of impacts arising from recent and on-going transport projects, and prediction of typical impacts expected of activities and projects included in the project, as well as assistance in the costing and formulation of environmental protection measures and resettlement and compensation requirements.

The importance of maps and GIS should be stressed to illustrate where and how potential environmental and social impacts may be anticipated as a result of proposed interventions and can then be used as tools to rigorously monitor the impacts during and after implementation.

**Policy and Regulatory Framework**

Identify the country’s policies concerning environmental planning and management in transport sector activities, as well as laws and regulations for environmental assessment and accounting relevant to the sector and assess needs for their effective application.
The Consultant will also analyze transport sector policies, laws and regulations that have environmental implications and review the sectoral investment planning process, in terms of objectives, methodology and procedures for review and approval of plans and projects. Recommendations should be made of how environmental and social issues may be effectively accommodated under current procedures.

**Analysis of Environmental Impact Issues and Mitigation Measures for the Transport Sector**

This section will identify and assess the major environmental issues of the transport sector, such as loss of biodiversity, soil erosion, desertification, disruption of hydrological conditions/drainage, secondary development when access to new areas are improved, involuntary re-settlement, new settlements, visual intrusion, noise and disturbance of wildlife distribution/migration. Special attention should be given to cumulative effects – direct, indirect and cumulative, long-term and short term. The consultant will also identify potential environmental/social impacts that should be studied and assessed as part of EAs for road, rail, river and port and airport projects.

Mitigation measures are usually of a detailed, technical nature and therefore normally addressed in project-specific EAs. However, by drawing upon findings from the analysis of policy, legal and institutional issues as well as the analysis of impacts and alternatives, the study should consider sector-wide mitigation solutions that require economies of scale in order to be cost-effective.

**Analysis of Alternatives**

An analysis of alternative investment options in terms of environmental and social costs and benefits will be undertaken whether complimentary or alternative to GoS/Bank investment options. Methods to undertake a comparative analysis, applying indicators of environmental and social impacts and methods to evaluate and compare the indicators and ultimately alternatives should be indicated for future use. Where several donors are involved in the sector, the study should suggest ways to coordinate efforts.
Environmental Guidelines

The Consultant will propose practical environmental guidelines to be used in the context of conditions in Sudan for the individual transport projects on roads, railways, rivers, ports and airports to mitigate negative impacts and enhance positive impacts. Specific recommendations with respect to coordination between the MTRB/DEPD and other relevant agencies on screening of projects and undertaking EA should be provided. The guidelines will cover:

- Purpose of the guidelines
- Legal and regulatory framework for environmental planning and management
- Anticipated environmental impacts and mitigation measures
- The EA process, including the incorporation of EA into the project cycle
- Environmental screening of proposed projects (standards for categorization)
- Scoping
- Managing the environmental impact assessment of projects, including analysis of alternatives
- Institutional responsibilities, including coordination with other agencies; public participation and consultation
- Design of Environmental Management Plans and Resettlement Action Plans, including mitigation measures, monitoring and supervision requirements, institutional arrangements, scheduling and costs
- Means to integrate EMPs, RAPs, etc, in project operational manuals
- Conditions of Contract for civil works contracts and works specifications to incorporate environmental requirements in works activities
- Monitoring and reporting
- Reviewing the adequacy of the EA report, EMP and RAP
- Evaluating the effectiveness of the EA, EMP and RAP and using lessons learned
- Annexes

Institutional Framework

Strengthening of institutions and building of capacity will be one of the main outputs of the assignment for improving environmental management in the sector. Thus, the consultant should examine the need for in-house arrangements for environmental assessment and safeguards compliance in MTRB and MEPD and HCENR and other relevant agencies, and recommend means to organize and strengthen sector units with the responsibility for policy and regulations and conducting or supervising the environmental aspects of policy formulation and implementation and individual transport project proposals. The relationships with MEPD/HCENR and other relevant bodies charged with environmental protection and handling social issues in the transport sector should be reviewed and improvements recommended as appropriate.

This will include:

(a) Recommendations for organizing arrangements for conducting environmental planning and management in the MTRB and relationships with MEDP, HCENR and for strengthening in-house environmental capacity. This will cover policy and regulatory instruments for environmental management and enforcement in the sector and institutional procedures for the preparation, implementation and supervision of individual EAs for transport projects including organizational structure at national and district levels and human and financial resources;

(b) Budget estimates for required staffing and other resource allocations for equipment, purchase of vehicles, etc

(c) Assessment of local private sector consulting capacity for undertaking EAs and routine environmental monitoring of civil works projects;
(d) Recommendations for allocating specific responsibility for monitoring consultant/contractor performance at site level.

(e) Consideration of the functions and duties of an Environment/Social Unit and its position in the MTRB, e.g. within a Policy and Planning Unit, focal points in the sub-sectors, and an Environmental Management Task Force (covering all sub-sectors) guided by the following TORs:

**Environment Unit**
- Apply Environmental Guidelines and best practice within the sector
- Review of investment projects and advise staff in the preparation of EAs and Social Assessments.
- Assist in the preparation, review and implementation of EMPs/RAPs and ensure that mitigation measures are effectively applied (this will require visits to project sites - Establish arrangements for effective functioning/reporting of the sub-sector focal points
- Advocate at senior levels of government the importance of environmental planning and management at policy and project levels.
- Collaborate with line ministries and the DEPD/HCENR in the review of relevant policies affecting the transport sector
- Compile monthly reports for submission to senior management
- Promote environmental due diligence by consultants/contractors and other stakeholders in the transport sector
- Undertake training programs for sector staff (ensuring the involvement of sub-sectoral agencies and others as pertinent) and produce guidance materials as appropriate.

**Environmental Management Task Force**
- Oversee the operations of the environment/social unit and liaison functions for at least 3 years
- Oversee initial implementation of EAs/SAs and mitigation measures adopted in the sub-sectors
- Advocate the importance of environmental and social assessment and interventions concerning policy and planning
- Assist the working relations between the sub-sectors and government agencies such as DEPD/HCENR
- Review the 5 year work program for environmental and social assessment and help facilitate environment policy formulation and review
- Report to the Minister, MTRB on progress in mainstreaming environmental and social assessment made by the Environment/Social Unit

**Training Needs**

Based upon an analysis of the institutional framework, the consultant will identify the needs for environmental training within the sector and in other government institutions dealing with environmental issues, private sector contractors and consultants and within concerned communities at large. A proposal for training programs for each group of stakeholders will be prepared along with indications of targeted audiences, scheduling arrangements, outline of course content/manuals needed, and required staff and financial resources. It is especially important that staff benefit from field visits involving case studies that review cross-sectoral impacts and how they were mitigated.

**Monitoring and a Sustainable Development Strategy for the Program**

The Consultant will identify environmental and social performance indicators to be used for monitoring of the implementation of environmental planning and management requirements and prepare a monitoring plan, including specifications for identifying required expertise and determining cost estimates.
Following review of environmental planning and management in the transport sector, the consultant will develop a Sustainable Development Strategy to enhance/upgrade institutional performance. This would include consideration of the organization of an Environment/Social Unit, Focal points in the sub-sectors and definition of roles and functions and additional staffing over a 5-year period.

Public Consultation

Public consultation is an integral part of the EA process and the consultant should maintain contact with selected communities, national NGOs, scientific experts, relevant government agencies and the private sector. The Guidelines and recommendations of the study will be discussed with the key stakeholders at a seminar to be held with MTRB, MEDP/HCENR, etc.

DURATION OF THE CONSULTING SERVICES

It is estimated that not more than 12 person months will be required for this consultancy service. Production of the individual EAs will be accomplished within 6 months of project effectiveness and the entire assignment within 9 months. It is envisaged that some traveling will be required to collect key missing baseline environmental and social data, confer regularly with major stakeholders and conduct workshops on the draft Guidelines and key recommendations of the final report.

REPORTS

The following reports will be expected from the consultant:

Individual EAs

Produced within 6 months of effectiveness and in accordance with the Environment Act of 2000 and the Bank’s safeguards policies/

Inception Report

The Inception report will outline initial findings and scoping and will describe the planning established by the consultant for the study phase, staffing levels, and detailed work plan/program for executing the services. Where appropriate, the consultant will make recommendations to strengthen the outcome of the assignment.

The report must be submitted within three (3) weeks of the commencement of the services.

Draft final Report

The Draft Final Report may be organized according to the following outline:
- Executive summary
- Introduction/purpose
- Outline of Guidelines for the railway, port and harbor and airport sub-sectors (detailed Guidelines to be provided in an annex or separate volume)
- Framework for integrating environmental dimensions into policy and long term investment decisions
- Institutional arrangements within the sub-sectors and means to cross-sectoral coordination
- Steps to strengthen capacity, including training
- Monitoring requirements
- Sustainable Development Strategy
- Conclusions and recommendations
- Annexes
Detailed reports on the different technical subjects should be presented in annexes.

The Draft Final Report will be presented to two workshops (one in Dar, the other at an agreed location in the field) of relevant stakeholders and the consultant will prepare and circulate summaries of the discussions, comments and concerns raised at the workshops.

**Final Report**

The Final Report shall reach MTRB not later than two weeks after the stakeholders’ workshop and upon the receipt of the various comments on the Draft Final Report.

All reports, documents and drawings developed by the Consultant and paid under these services shall become the property of the Government of Sudan upon completion of the services. The language of the documents and reports shall be in English. All reports will be submitted with 10 copies to the client and two copies to the World Bank. In addition, the consultant will submit two cd/diskette copies of all reports, drawings and other materials in an approved computing format.

**QUALIFICATIONS AND EXPERIENCE REQUIRED**

The Consultant is required to provide suitably qualified and experienced experts, support staff and resources to complete the services. The team shall have substantive expertise, covering as a minimum, the following areas:

- Environmental and Social Assessment, especially in the transport sector and covering one or more of the fields of ecology, natural resources management/hydrology or earth sciences
- Institutional arrangements and capacity building and training
- Social assessment, including gender, HIV/AIDS prevention, resettlement action plans

Previous experience with donor funded transport sector EAs is considered essential.

At a minimum, the professional staff shall be graduates (preferably with a higher degree), led by a Team leader who shall be a professional in a relevant discipline with a minimum of 10 years experience in conducting EAs in East Africa, especially in the transport sector.

**CLIENT SUPPORT**

The MTRB will appoint the Environment Liaison Officer to handle all requests for information, guidance and assistance. All reasonable assistance will be provided, including liaison with other government departments and access to any relevant data not classified as restricted.

MTRB shall provide the Consultant, without charge, such support facilities as may reasonably be needed for the expeditious performance of the required services, including reasonable access to pertinent files, documents and working papers.

The client shall provide, at no cost to the consultant: a counterpart staff member, an office with adequate office furniture, and access to a photocopier, printer, and telephone/ fax facilities. The consultant will be responsible for the payment of the telephone/fax bills as well as the bills for all office consumables and any repair/maintenance costs for the office equipment of which the consultant has exclusive use.
Annex 7.2: Examples of Environmental Contract Clauses for Roads

Before the order to commence civil works, the contractor is required to implement the Environmental Management Plan (EMP) and the Resettlement Action Plan (RAP) prepared for the particular road works. The Plans shall spell out how the contractor should achieve environmental and resettlement targets and objectives specified under the Environmental and Social Assessment Framework (ESAF).

Notwithstanding the contractors’ obligation under the above clause, the contractor shall implement all measures necessary to restore the sites to acceptable standards and abide by environmental performance indicators specified under the ESAF to measure progress in achieving objectives during execution or upon completion of civil works. These measures shall include but not be limited to the following:

Minimize the effects of dust on the surrounding environment resulting from asphalt mixing sites, dispersing coal ashes, temporary access roads, etc. to ensure safety, health and protection of workers and communities living downwind of dust producing activities.

Ensure that noise levels emanating from machinery, vehicles and noisy construction activities are kept to a minimum for the safety, health and protection of workers in the vicinity of high noise levels and communities near rock-blasting areas.

Ensure that existing water flow regimes in rivers, streams and other natural or irrigation channels is maintained and/or re-established where they may be disrupted due to civil works (scouring control is especially important).

Prevent bitumen, oils, lubricants and waste water used/produced during the execution of works from entering rivers, streams, irrigation channels and natural water bodies/reservoirs and also ensure that stagnant water in uncovered borrow pits is treated to avoid creating possible breeding grounds for mosquitoes.

Prevent and minimize the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access roads on the natural environment and local communities and their settlements. Restore/rehabilitate all sites to acceptable standards.

Upon discovery of relicts of archaeological, religious or historical importance, determine and implement measures aimed at protecting such features.

Implement soil erosion control measures to avoid surface runoff and prevention of siltation, etc.

Ensure public safety and meet traffic safety requirements for operations to avoid accidents.

Specific environmental and social issues and their handling by contractors should be provided following completion of the ESAF.

Annex 8.3: ESAF - Outline of Contents

Introduction

Project Description
  Background and objectives
  Components
  Location
  Project coordination and implementation
Approach and Methodology
   Objectives and scope of the ESMF

Environmental Policies, Laws and Regulations
   National, regional laws, regulations, etc
   Applicable World Bank environmental and social safeguard policies

Identification of Environmental and Social Impacts of the project
   General
   Environmental review: Medical wastes handling and disposal
   Road rehabilitation
   Rehabilitation of buildings
   Rural water rehabilitation
   Water supply and sanitation
   Solid waste management

   Social review: displacement of persons/communities along rehabilitated roads

Environmental and Social Assessment Framework
   Environmental assessment and management
   Project cycle and screening criteria
   Screening process
   Standards and codes of practice
   Mitigation measures for the project
   Implementation of mitigation measures
   Environmental Management Plan (EMP)
   Potential impacts: nature and extent
   Planned mitigation measures, incl. monitoring and institutional arrangements
   Institutional strengthening/training
   Costs/sources of funds
   Resettlement Action Plan (RAP)
   Determining need
   Preparation of the RAP
   Requires resettlement
   Census and valuation of assets
   Entitlements
   Resettlement sites and programs
   Responsibilities and arrangements for implementation and monitoring
   Resettlement timetable and budget

Consultation and Disclosure

Implementation Arrangements
   Institutional arrangements
   Monitoring and evaluation
   Review and auditing

Capacity Building, Training and Technical Assistance
   Institutional capacity assessment
   Training
ESAF Implementation Budget

Annexes
ANNEX 8: LETTERS OF ENDORSEMENT BY SECTOR MINISTRIES AND MINISTRY OF FINANCE OF THE GNU
<table>
<thead>
<tr>
<th>Item no.</th>
<th>Activity</th>
<th>Planned</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Identification</td>
<td>September 2005</td>
<td>October 2005</td>
</tr>
<tr>
<td>2.</td>
<td>Initial Project Proposal submitted by GNU to Interim Oversight Committee and approved by Committee</td>
<td>December 11, 2005</td>
<td>December 11, 2005</td>
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<tr>
<td>3.</td>
<td>Project Preparation Mission</td>
<td>February 2006</td>
<td>29 August to 17 September, 2005</td>
</tr>
<tr>
<td>5.</td>
<td>Submission of Final Project Proposal to MDTF Secretariat for transmittal to Oversight Committee</td>
<td>August 2006</td>
<td>August 12, 2006</td>
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<tr>
<td>6.</td>
<td>Signing of Grant Agreement</td>
<td>By end September, 2006</td>
<td>-</td>
</tr>
<tr>
<td>7.</td>
<td>Project Effectiveness</td>
<td>October 1, 2006</td>
<td>-</td>
</tr>
<tr>
<td>8.</td>
<td>First works contracts awarded</td>
<td>January 2007</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>Early Implementation Assessment</td>
<td>October, 2007</td>
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<tr>
<td>10.</td>
<td>Mid- Term Review</td>
<td>April, 2008</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Closing Date (six months after project completion)</td>
<td>June 2010</td>
<td></td>
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</table>
ANNEX 10: NAMES OF STAFF/ CONSULTANTS/ GOVERNMENT OFFICIALS WHO WORKED ON THE PROJECT

This operation was prepared by a joint Government of National Unity and World Bank team comprising of:

**World Bank:** George Banjo (Team Leader, AFTTR), Victor Ocaya (Highway Engineer, AFTTR), Sidi Boubacar (Lead Counsel, LEGAF), Parminder Brar (Lead Financial Management Specialist, AFTFM); Mbuba Mbungu (Senior Procurement Specialist, AFTPC); Nina M. Jones (Program Assistant, AFTTR); Anne Njuguna (Program Assistant, AFTTR); Terje Wolden (Highway Engineer, Consultant); Vijay Raman (Transport Operations Specialist, Consultant); Francesco Sarno (Procurement Specialist, Consultant); Narayan Sharma (Procurement Specialist, Consultant); Colin Rees (Environmental Specialist, Consultant); Hassan M Hassan (Environmental Specialist, Consultant).

The **Government** Team was led by Mr. Madawi Tiraifi (first Under Secretary, MTRB, then Advisor to Minister, MTRB) and included Messrs Hamid Wakeel (MD, NHA), A. Sumaya (Project Manager, NHA); Engr. Adam Mohakar (Project Manager, RTC), Engr. El Fatih and Engr. Salama (RTC); Engr. Abdelrahim M. Abdelrahim (Project Manager, SRC) and Mr. Usman (SRC); Mr. Hussein El Khazin (MoFNE).

The team benefited from inputs from Mr. Asif Faiz (Country Manager, Sudan).

Peer reviewers were Dieter Schelling (Lead Transport Specialist, AFTTR) and Justin Runji (Senior Transport Specialist, AFTTR).

The Sector Manager was C. Sanjivi Rajasingham (AFTTR) and the Country Director Ishac Diwan (AFC06).