



## Report on Logistics Mission to Kosti

December 2004

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## **1. Access:**

### ***1.1. Road:***

Access by road to Kosti from the north is via Khartoum. A good quality paved road links the two locations and was undergoing maintenance at the time of writing. The 380km road takes three and a quarter hours in a 4x4 or six to seven hours in a truck. One checkpoint was in evidence north of Kosti. The majority of traffic on the road appeared to be buses and trucks transporting sugar from Kosti to Khartoum.

Road access from Kosti to Malakal is dry season only for normal vehicles, while 4x4 can operate throughout the year. Transport time during the dry season is one day. The road is considered insecure and there are reportedly at least 10 mobile checkpoints along the route manned by various militias.

Kosti is positioned along the paved road running from Khartoum to Rahad, a town approximately 20km south of el Obeid. Rahad is envisaged as a major hub for the return of IDPs. By car, the journey from Kosti to Rahad takes around four hours and is a distance of 380km. By truck the journey takes between seven to 10 hours. There are nine fixed checkpoints along the route.

### ***1.2. Rail:***

A single-track railway links Kosti with Khartoum and Port Sudan to the north-east, and Babanusa and Nyala to the west.

Rail track from Sennar to Kassala is non operational therefore trains must pass from Kosti through Khartoum to reach Kassala and Port Sudan.

An average of three trains pass through Kosti each day. Trains are comprised of around 75% fuel wagons (traveling between el Obeid and Khartoum) and 25% general cargo. An average of 17 wagons (with a total carrying capacity of 500MT) and one service wagon are pulled by each train. Wagons are on average 41ft long, 8ft wide, and have a volume range of between 2000 ft<sup>3</sup> and 2900 ft<sup>3</sup>.

Currently there are no passenger trains traveling between Khartoum and Kosti. Insecurity has resulted in all passenger services being suspended although as the peace deal matures it is hoped passenger wagons will again be utilized. All passenger wagons are privatized. Historically, a one way ticket between Khartoum and Nyala cost SD2000.

Historically passengers did not travel from Khartoum to Kosti by train as road routes were faster. Passengers would only board at Rahad, 240km west of Kosti, where the road deteriorated. With the current absence of passenger services, returning IDPs are traveling to Kosti from Khartoum on top of the goods wagons. The 381km trip takes 12 hours, with trains traveling at an average speed of 30 – 50km per hour.

From Port Sudan trains can supply Kosti in between five and 15 days, depending on transit times.

The load capacities of the Sudanese rail track vary according to stretch. While the load capacity at Port Sudan is higher than certain parts of the network, wagons are loaded to the capacity of the track at their final destination. Rail weights are as follows:

Port Sudan to Khartoum: 90lbs/yard  
Khartoum to Kosti: 75lbs/yard (currently being upgraded to 90lbs/yard)  
Kosti to Babanusa: 75lbs/yard (currently being upgraded to 90lbs/yard)  
Babanusa to Nyala: 50lbs/yard  
Babanusa to Aweil: 50lbs/yard

The authorized axle weight, total wagon weight, and payload weight for each category of track are as follows:

90lbs/yard: 16.5MT per axle – max wagon weight 59MT – payload weight 40MT  
75lbs/yard: 16.5MT per axle – max wagon weight 17MT – payload weight 35MT  
50lbs/yard: 13.0MT per axle – max wagon weight 15MT – payload weight 30MT

Contacts for the National Railway are as follows:

Kosti: Eng. Mussa el Gome el Gahadi +249 912738109, Office +249 571 8 22429

Khartoum: General Manager Omar Mohammed Mouf

The majority of additional information can be sourced from headquarters in Khartoum. For technical information, the technical headquarters in Atbara is the best point of contact.



Kosti railway station

### **1.3. River/Ports:**

A number of barge assessments have been undertaken by Agencies therefore this report does not attempt to provide anything more than an overview of the barge/river situation.

Barges and pushers available from Kosti are as follows:

Barges:	Pushers:
36 cargo barges of 500T each	10 working condition available for the Juba convoy
8 flat top barges of 500T each	3 working condition for short haul (e.g. Malakal)

8 fuel barges 300T each                      1 working standby pusher  
5 third class passenger barges (200 pax each)

The 10 pushers for the Juba convoy have a capacity of 2000MT each, while the three short haul pushers and the standby pusher have a lesser capacity. Max load capacity for each barge is 500MT, however depending on river levels, this may not exceed 400MT.

A weekly barge/pusher combination travels from Kosti to Malakal. Composition is usually four barges and one pusher. One stop is made at Renk, and the convoy does the trip from Kosti to Malakal in four days, with another three days to return.

A bi-yearly convoy of around 36 barges and nine pushers travels the route from Kosti to Juba. The convoy takes around one month and travels at approximately 5-6km per hour, although this time fluctuates due to the security situation along the route and delays in off/onload at the various stopover points.

To reach Juba from Kosti each pusher requires approximately 70MT / 420 drums of fuel. Each pusher is assigned to around 4 barges, giving each pusher a total cargo of 1600MT.

The docks at Kosti are in a relatively good condition; there is a small warehouse at the dockside as well as some currently non operational cranes. As a result loading is done manually with at an estimated price of SD50 per sack. Kosti railway station is adjacent to the RTC docks, but is too far for manual on/off load. Therefore transportation between the dock and the railway is best carried out by truck.

Contact point in Kosti is the General Manager of RTC Southern Region, Mr Mohamed al Moltosso, cell 01912153362.



Cargo barge 500T



Kosti docks

## **2 Infrastructure/Assets:**

### **2.1. Power:**

Kosti is connected to the national grid, power being generated through hydropower dams in the river Nile.

Supply of power is 24 hours, with only short duration cuts due to local problems.

The town has two transformers; one 75MvA, and one 17.5MvA.

The main consumers of electricity in the area are the Asaraya pumping station, and the local cement factory.

The main contact point in Kosti for power supply issues is the Regional Manager, Mr Mohammed Hassan.

### **2.2. Water:**

A physical inspection of the water station at Kosti was not undertaken, however water in Kosti was reported to be filtered and relatively clean. Water shortages are extremely rare, only occurring when maintenance of the pumping station disrupts operations.

### **2.3. Bridges:**

Kosti has the first bridge crossing of the Nile north of Juba. Passage across is free, but there is considerable military control on both sides of the bridge.

The bridge is constructed of concrete and is around 700 metres long. There are two lanes of seven metres width each. An exact load bearing capacity was not evident but 70MT trucks were seen crossing, therefore suggesting that there are no weight limitations for normal cargo transport.

North of the bridge is a one track steel rail bridge. No assessment was undertaken.



### **2.4. Road Transport Sector:**

While Kosti reportedly has a transport union for local transporters, contact with its representatives could not be made.

The majority of movements between Khartoum and Kosti and onwards to el Obeid are done by the larger transport companies based out of Khartoum. A number of these transporters have branch offices in Kosti but detailed information on their operations is best collected via their head offices in Khartoum.



One transporter visited (IAD Forwarding) had 10 6x6 vehicles stationed in Kosti. The vehicles were in relatively poor but working condition. The Manager of IAD Forwarding is Mr Abdel Aziz and can be contacted in Khartoum on 0912131082.

### ***2.5. Fuel Storage/Supply:***

Several commercial fuel stations are located in Kosti. These have their own supply lines from Khartoum and are not dependent on Government fuel supplies. In addition, a Government fuel depot is located at Kosti and the fuel available for sale. Government fuel storage capacity is 217,000 gallons for petrol, and 1,251,000 gallons for diesel. Further Government storage is located at Rabak, adjacent to Kosti. The Rabak facilities hold 440,500 gallons of petrol, and 1,200,000 gallons of diesel. There is a daily supply from Khartoum.

Kosti's commercial fuel stations only utilise the Government fuel depot stores as an emergency when their supply lines from Khartoum break. The depot supplies all other White Nile State with fuel.

The Government fuel depot in Kosti has two 10,000 gallon tanker trucks which can supply upon demand. The depot can and does supply locations outside of White Nile State when demand is evident.

Fuel supplies for Government controlled towns in Southern Sudan are supplied from Renk.

At the time of writing fuel supplies in Kosti were SD377 a gallon of diesel and SD620 a gallon of petrol. JET A1 is not available in Kosti.

Contact with the Government fuel depot can be made on 0912619039.

### ***2.6. Warehousing:***

Warehousing is available in Kosti. Empty warehouses of 3,500m<sup>2</sup> and 4,000m<sup>2</sup> were visited. Neither had been used before and were currently available. Both had large sliding doors that would allow entry of heavy vehicles. The concrete slab flooring of both structures was poor and would not, in its current state, allow for automated loading equipment. Flooring is slightly above ground level therefore flooding is unlikely. The maximum weight per m<sup>2</sup> advised is 2.5MT. Prices range from between USD0.80 and USD1 per m<sup>2</sup>. While accurate figures for



labour costs was not forthcoming, the average price is thought to be around USD11 per labourer per day. The land the warehouses are located on is owned by the Government.

### ***2.7. Communication:***

Kosti is linked to the Sudantel landline phone network. Internet can be used on the same network at an approximate speed of 40Kb/s

Mobitel provide a mobile phone network although the network is irregular.

### ***2.8 Accommodation:***

A range of accommodation options are available in Kosti, however demand often exceeds supply and booking in advance before departure to Kosti is strongly advised. Prices for a night's accommodation are around USD20 to USD30.

## **3. Humanitarian Presence:**

### ***3.1. Organisations on the Ground:***

WFP maintain a logistics hub in Kosti as well as some small programme activities. The hub serves el Obeid, Kordofan, Bentiu, Nuba Mountains, Malakal, Blue Nile State, and Juba.

IDPs in the Kosti area are assisted through ADRA and FAR (international NGOs) programmes.

A number of local NGOs are present in Kosti. The majority of their programmes support the local population although a number of initiatives are aimed at IDPs.

### ***3.2. Maps:***

No maps of Kosti were in evidence.