RUMBEK-LEER-BENTIU-YIROL ROAD ASSESSMENT MISSION

Date(s): 30 August - 06 September 2012
Location(s): Rumbek, Mayendit, Leer, Mir Mir, Bentiu, Aluakluak and Yirol
Participant(s): Logistics Cluster GIS Officer, WFP Roads Engineer
Security: Level 2

1.0 MISSION OBJECTIVES
1. Using GPS and SDI-T tools, track and assess roads into Rumbek, Mayendit, Leer, Mir Mir, Bentiu, Aluakluak, and Yirol for humanitarian access.
2. Identify damaged roads, bridges, and culverts for possible repair; improve knowledge of access for Common Transport Service (CTS), and for the humanitarian community.
3. Assess and mark GPS locations of the flooded zones for the above road transport corridors.

2.0 BRIEF
The Logistics Cluster and WFP Roads Unit carried out a joint rapid assessment during the period from 30 August to 06 September 2012 in Lakes and Warrap States of South Sudan. The purpose of the mission was to assess the Rumbek-Bentiu and Rumbek-Yirol road corridors which were recently damaged by heavy rains and flooding. Currently, the flooding in Rumbek-Yirol road corridor has expanded and is affecting approximately 10km to 18km of road section before River Payi between Aluakluak and Yirol. The Yirol road section from Rumbek has flooded with more than 50 water crossing locations. Rumbek-Bentiu Road corridor has two critical road sections which are flooded: before Mayendit County Centre (from Rumbek) and between Leer Junction and Mir Mir Town. These damages not only resulted in deteriorated conditions of the road, but also caused a complete closure of the corridors and truck traffic along these road sections. In addition, the travel time along these sections of road have more than tripled when compared to the dry season (Rumbek-Bentiu: 3 days vs 1 day during dry season; Rumbek-Yirol: 12 hours vs 4 hours during dry season).

3.0 SUMMARY OF FINDINGS/RECOMMENDATIONS/OBSERVATIONS

3.1 RUMBEK-MAYENDIT-LEER-BENTIU ROAD
• The Rumbek-Maper road, which is gravel and rough, has deteriorated and currently has many potholes.
• The road from Maper to Mayendit Junction has been upgraded recently: the first section (Maper-Madol Payam) is now gravelled; the remaining section (Madol Payam-Mayendit Junction) is now clay. Both of these roads are passable during the rainy season for all traffic, after one day of dry conditions.
• Recent heavy rains have severely damaged the road from Mayendit Junction to Rupkuai. Many sections of this road have been washed away by flooding. As a result, the road is only passable, with difficulty, for 4-wheel-drive (4WD) light vehicles after three days of dry conditions. This situation is expected to continue until the end of October 2102 (see photo C).
• Mayendit Culvert has been recently repaired. However, the sides of the culvert have since eroded by severe flooding at many points. Currently the road is only passable for 4WD vehicles after three days of dry conditions. If flooding continues over the coming weeks, the road is not expected to be passable for any traffic (see photo B).
• Mayendit County Commissioner has expressed concerns that the situation is worsening due to the increased water levels caused by floods. Through the fuel contributed by the community, the County has constructed a wall around Mayendit Town with local black cotton soil in order to reduce the impact of the floods.
• The first 8km road section from Rupkuai to Mir Mir is submerged; flood water has also damaged the culverts (the assessment team witnessed two trailers stuck, and one truck overturned on this road). Currently the road is passable for 4WD vehicles, with difficulty, after one day of dry conditions. However, use of this road is not advised as the current level of damage is severe and expected to deteriorate should the flooding continue. It is not expected that this road will be passable for all traffic until the end of October 2012 and the condition might worsen (see photo D, E, F).
• The first 15km of the road from Mir Mir to Bentiu is in very bad condition; trucks and 4WD vehicles frequently have become stuck, causing the road to narrow into a single lane. After removal of these vehicles, the road situation is expected to improve and become passable for all traffic, with some difficulty due to the damaged sections (see photo G).
• The road to Wathiech/Kilo 29 Port is a single lane (4m wide) and partially gravel with the remaining section surfaced with compacted clay. The road section is passable only for 4WD and trucks in all seasons. Currently, WFP Logistics is using this road to access the Nile River corridor. The Kilo 29 Port area is 200m by 250m of compacted gravel and is usable for medium and large barges in all seasons; it is also a transit port.
point for travel to Bentiu during the rainy season as both the road corridors from Wau/Wunrock and Rumbek/Leer are closed (see photo H).

- Kilo 29 to Bentiu road is gravel and passable for all traffic, with difficulty, in the rainy season.

RECOMMENDATIONS:
- Mayendit Culvert and other water crossing sections need to be repaired immediately. There is a construction company based in Mayendit County Town with heavy machinery, including some assets currently located at Leer that could be used to support rehabilitation works. The company manager has expressed willingness to work after 3 days of dry conditions, provided the works fall within the contract period. However, the manager did indicate that limited fuel is a major constraint (see photo A, B).
- Traffic should be restricted during the rainy season as many transporters travel without adequate knowledge of the road conditions and are getting stuck along this road, further damaging and making the road impassable for light vehicles.
- Installing temporary culvert pipes will at least allow 4WD vehicles to pass after one dry day of conditions.

![Photo A: Flooding - Mayendit county commissioner on site](image1)

![Photo B: Mayendit Culvert side wall eaten by flood water](image2)

![Photo C: Land cruiser has breakdown before Mayendit](image3)

![Photo D: Truck blocked the road between Rupkcaul and Mir Mir](image4)

![Photo E: Flood water has damaged the road before Mir Mir](image5)

![Photo F: Truck has over turned before Mir Mir Town](image6)
3.2 RUMBEK-ALUAKLAUK-YIROL ROAD

- The Rumbek-Aluakluak road, which is gravel and rough with many potholes, has deteriorated further due to recent heavy rains.
- The Aluakluak-Yirol road has many swampy sections that start at approximately 25km away from the Aluakluak Payam Centre. At more than 50 different locations the road has been crossed by flood waters, 10 of which are in extremely poor condition and impassable. The road has been damaged (marked with GPS) and might be deteriorated further if flooding continues (see photo I).
- The Payii River is full to capacity and as a result it is pushing water out of the river channel thus feeding the swamps with more water.
- The rate at which the flood water is eroding the road at those locations crossed by flood water, coupled with the anticipated heavy rains expected in the last weeks of September, make it likely that the two centres (Alauklauk and Yirol) will be completely cut off from road access in the coming weeks (see photo L).
- The bad condition of the road is further worsened by the heavy commercial traffic driving on the wet road surface, further deepening the developed potholes (see photo J).
- Some heavy trucks have been stuck deep in the black cotton soil along the road for over four days according to drivers interviewed (see photo J).
- Some of the locations have more than 1m deep of flood water standing on the road crossings between Aluakluak and Yirol road section (see photo K).
- The Rumbek-Aluakluak-Yirol road is not passable for all traffic; however some 4WD vehicles are passing, with difficulty, after 2 days of dry conditions and frequently become stuck in the mud.
- Eyat Construction Company is working on this section of road, at the request of the Yirol County Commissioner and the State Minister for Physical Infrastructure. These works are only intended to complete spot repairs and install a few critical culverts. The tentative date for completion is the end of September 2012 (see photo M, N).
- The Yirol County Commissioner has stated that traffic is restricted, as spot repair work is ongoing.

RECOMMENDATIONS:

- The Aluaklauk-Yirol road section requires many culverts to serve as water crossing points.
- Traffic should be restricted during the rainy season, as many transporters travel without adequate knowledge of the road conditions and are getting stuck along this road.
- Installing temporary culvert pipes will at least allow 4WD vehicles to pass after one dry day of conditions.
The Logistics Cluster in South Sudan maintains a number of e-mail lists for the dissemination of information and discussion on logistics topics. For more information about Logistics Cluster in South Sudan, please visit our website at www.logcluster.org/ops/XXXXXX or send an email to XXXXX.logs@logcluster.org

Photo I: Flooding between Aluaklauk and Yirol road

Photo J: Vehicles got struck between Aluaklauk and Yirol road

Photo K: Vehicles got struck between Aluaklauk and Yirol road

Photo L: Flooding at many locations

Photo M: Road spot repairs by a Construction Company

Photo N: Road spot repairs by a Construction Company
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