

Green Roads for Water Training in Sudan

Wad Madani, 15-20 January 2023

Implementation of GR4W for the Transport Sector

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Transport Sector:

The entity responsible for transport in Sudan is the Federal Ministry of transport.

It operates in four sectors land, air, maritime and river transport sectors. With regard to GR4W approach the focus is the land transport sector and the two units under the supervision of the Ministry are:



Sudan Railways Corporation (SRC)

It is the body responsible for the Railways in Sudan regarding the policies, regulations, operation and maintenance.

GR4W concept can be incorporated by SRC for protecting the railway infrastructure and for guaranteeing the effective operations of railways along the year.

Land Transport Unit

Responsible for the Boarder Crossings and the regulation and supervision of the land transport processes.

The land transport unit is a major stakeholder in the GR4W approach as it represents the users category for the roads (travel buses and trucks).











The need for GR4W approach



Pictures highlighting the damages caused by seasonal floods on railways and roads systems









GR4W Regime: Areas of Intensive Irrigation

Issues:

- 1. Damage of infrastructure
- 2. Increased cost of maintenance
- 3. Stopping of the movement of goods

- 1. Coordination with the Roads and water sectors for finding innovative and integrated solutions
- 2. Include maintenance cost in the operational cost













GR4W Regime: Areas of Intensive Irrigation

Actors:

- 1. Ministry of Transport
- 2. Sudan Railways Corporation
- 3. Land Transport Unit
- 4. Private Sector (Sudanese Chambers of Transport Union)

Responsibilities:

- 1. Supervision, Resource mobilization, coordinate with stakeholders
- 2. Design, Implementation, Operation and Maintenance
- 3. Regulate land transport process with private sector



Expected Challenges:

- 1. Fund
- 2. Community awareness and acceptance for solutions
- 3. Implementation period
- 4. Affects of Climate change









GR4W Regime: Rain-fed Areas

Issues:

- 1. Damage of infrastructure
- 2. Increased cost of maintenance
- 3. Stopping of the movement of goods

- 1. Coordination with the Roads and water sectors for finding innovative and integrated solutions
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Expected Challenges:

- 1. Fund
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GR4W Regime: Agropastoral Areas

Issues:

- 1. Damage of infrastructure
- 2. Increased cost of maintenance
- 3. Stopping of the movement of goods
- 4. Railway stations have major water problems
- 5. Lack of labor
- 6. Sand creep that covers the railway

- 1. Coordination with the Roads and water sectors for finding innovative and integrated solutions
- 2. Include maintenance cost in the operational cost
- 3. Small water harvesting projects
- 4. Strategic Planning for nomadic settlement
- 5. Increase the vegetation











GR4W Regime: Agropastoral Areas

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Responsibilities:

- 1. Supervision, Resource mobilization, coordinate with stakeholders
- 2. Design, Implementation, Operation and Maintenance
- 3. Regulate land transport process



- 1. Fund
- 2. Community awareness and acceptance for solutions
- 3. Implementation period
- 4. Affects of Climate change











GR4W Regime: Coastal Areas (Shidyab region)

Issues:

- 1. Damage of infrastructure
- 2. Increased cost of maintenance
- 3. Stopping of the movement of goods
- 4. High increase in the transport fees causing an increase in the cost of goods
- 5. Connection difficulties

- 1. Coordination with the Roads and water sectors for finding innovative and integrated solutions
- 2. Include maintenance cost in the operational cost
- 3. Contribute to the water management projects













GR4W Regime: Coastal Areas

Actors:

- 1. Ministry of Transport
- 2. Sudan Railways Corporation
- 3. Land Transport Unit
- 4. Private Sector (Sudanese Chambers of Transport Union)

Responsibilities:

- 1. Supervision, Resource mobilization, coordinate with stakeholders
- 2. Design, Implementation, Operation and Maintenance
- 3. Regulate land transport process



Expected Challenges:

- 1. Fund
- 2. Community awareness and acceptance for solutions
- 3. Implementation period
- 4. Affects of Climate change
- 5. Speed of water flow











Thank you!

For more information visit <u>www.roadsforwater.org</u> or send an email to <u>adeligianni@metameta.nl</u>