



Green Roads for Water Training in Sudan

Wad Madani, 15-20 January 2023

Stakeholder Cooperation for Green Roads for Water

Anastasia Deligianni & Mohammed Yasir, MetaMeta





Current road development practice

- Road sector is **not well integrated with other sectors** (mainly water, agriculture)
- Road sector **has limited awareness on the benefits that roads could have on water management and climate resilience**
- **Water-related damages on roads and problems roads pose to the landscape and communities around roads increases risks to communities and budget of the government to address both**
- Meeting **political priorities** is major cause of **mismanagement in road sector institutions**



Improving working methods for GR4W



- **Incorporate water management, disaster preparedness and climate resilience** in road development practice
- **Multiply stakeholders** (adding roadside communities, water and agricultural agencies, environmental authorities, disaster management agencies, relevant NGOs, private sector etc.)
- **Take different actions and changed working methods** under each of the resilience approaches (protective, adaptive and proactive)



TABLE 14.1 Working methods in the three resilience approaches

RESILIENCE APPROACH	ACTIVITIES	MAIN STAKEHOLDERS	CHANGED WORKING METHODS
Protective Basic resilience: <i>Protect the road</i>	<ul style="list-style-type: none"> • New specifications for cross drainage and road surface • Catchment management for road protection 	Road authorities; some coordination with land management authorities	<ul style="list-style-type: none"> • Increased construction budgets • Catchment protection program

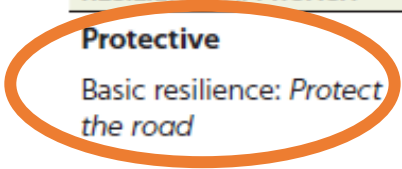


TABLE 14.1 Working methods in the three resilience approaches

RESILIENCE APPROACH	ACTIVITIES	MAIN STAKEHOLDERS	CHANGED WORKING METHODS
<p>Adaptive</p> <p>Resilience plus 1: <i>Make the best use of the road</i></p>	<ul style="list-style-type: none"> • Train farmers and implementers on road-water management techniques • Integrate roads for water in existing catchment management programs • Make complementary investments in roads-for-water measures • Combine road maintenance arrangements with water management measures 	<p>Key stakeholders work in a complementary fashion:</p> <ul style="list-style-type: none"> • Agriculture authorities • Water authorities • Disaster risk reduction authorities 	<ul style="list-style-type: none"> • Complementary programs • Training for roadside users and farmers • Special green funding arrangements for supplementary programs • Memorandum of understanding between main sector departments (roads, water, disaster risk management)

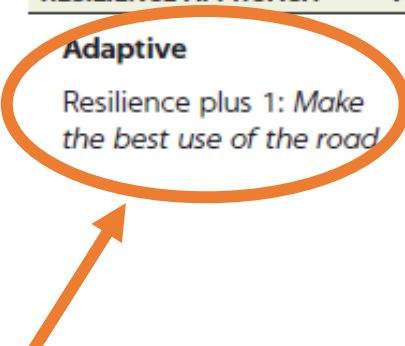


TABLE 14.1 Working methods in the three resilience approaches

RESILIENCE APPROACH	ACTIVITIES	MAIN STAKEHOLDERS	CHANGED WORKING METHODS
<p>Proactive</p> <p>Resilience plus 2: <i>Modify the design and function of the road</i></p>	<ul style="list-style-type: none"> • Changes to legislation covering road authorities, water management authorities, and perhaps others • Changes to road building and watershed management guidelines • Creation of task forces within main government departments (roads, water, and agriculture) • Creation of interministerial steering committee • Incorporate in main country policies and programs (green growth, climate resilience, agricultural growth) • Include the approach in university curriculum • Work with main infrastructure funders 	<p>Key stakeholders work hand in hand:</p> <ul style="list-style-type: none"> • Road authorities • Agriculture authorities • Water authorities • Environmental authorities • Disaster preparedness authorities • Infrastructure investors 	<ul style="list-style-type: none"> • Develop new program goals and criteria • Multifunctional investment formulation • New integrated designs and guidelines • Training for engineers and experts in all related sectors • Modeling for specific geographies • Special green funding arrangements for additional costs • Intersectoral task forces • Interministerial steering committees to ensure programs have necessary support from the top down

Source: MetaMeta (www.roadswater.com).



Group exercise :

Understanding the current institutional arrangement on roads

Roles	Highways	Road type 2	Road type 3	Level
Policy formulation	MoF,...			National /local
Sector Planning and Coordination	Road Authorities,..			
Financing				
Regulation				
Project Planning and Implementation				
Service Provision, Operation and Maintenance	Communities ...			



Example of institutional arrangement on roads on Rwanda

Roles	National Roads	District Roads 1	Districts Roads 2	Feeder roads	Level
Policy formulation	Mininfra, Minirena, Minagri, Minaloc, Minema, MiniCT				National
Sector Planning, Coordination, M and E, Capacity building	Mininfra, SWAP Secretariat Transport, RTDA,				
Financing	Minecofin, RDB, Dev. Partners,				
Regulation	RURA		REMA, RWB, RSB		
	RNP				
Project planning and implementation	RTDA	Districts, COK, RTDA			District
Service Provision, O and M	RMF	LODA			
		Districts, Communities			





Thank you!

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or send an email to adeligianni@metameta.nl