



THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF NATURAL RESOURCES AND TOURISM



Final report

KILORWEMP

KILOMBERO AND LOWER RUFJI WETLANDS
ECOSYSTEM MANAGEMENT PROJECT

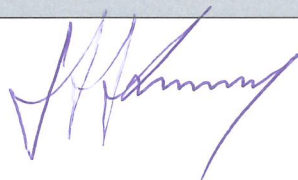
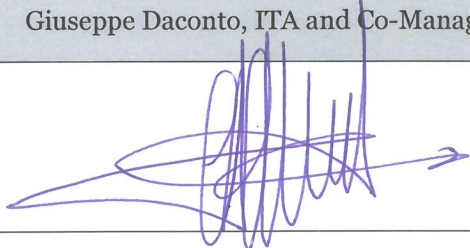
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Intervention form

Country	Tanzania
PROJECT NAME	Kilombero and Lower Rufiji Wetlands Ecosystem Management Project
PROJECT CODE	KILORWEMP / TAN 11 027 11& TAN 12 028 1T
INTERVENTION ZONE	Districts of Kilombero, Rufiji and Ulanga
BUDGET	7.000.000 EUR (inclusive of EUR 3,000,000 EU co-financing from EU)
PARTNER INSTITUTION	Ministry of Natural Resources and Tourism (MNRT)
DATE OF SPECIFIC AGREEMENT	27/9/12 BEL-GoT 25/11/2014 EU-BTC (with retroactive start date on Feb 27, 2013)
PROJECT END	29/10/17 (EU-BTC: 28/2/18)
EXPIRY SPEC AGR	28/9/18
DURATION (MONTHS)	72 (6 years) (EU-BTC: 5 years)
TARGET GROUPS	<ul style="list-style-type: none"> Wetland based resource users engaged in collective action for CBNRM are direct beneficiaries at community level. The benefits include better use of their resource base (result 1) and improved livelihoods including incomes (result 2). The exact number of direct beneficiaries will be estimated once the precise targets for CBNRM and livelihood development are set up after the participatory baseline assessment. Village governments, ward executive offices, district councils, regional administrations and line ministries directly involved in the project are direct beneficiaries at institutional level (result 3). Their benefits include improved governance instruments, human and financial capacities. Private commercial resource users (of great importance and impact in the project area) are direct beneficiaries whenever they will associate themselves to the project implementation in order to improve their management of resources and benefit surrounding communities.
General Objective (IMPACT)	To sustainably manage the wetlands Ecosystem of the Kilombero Valley and Lower Rufiji so that its ecological balance is conserved, the local communities' livelihoods are improved and economic development is sustained.
Specific Objective (OUTCOME)	Strengthened capacities to implement the sustainable management policy and regulations to the Wetlands Ecosystem of the Kilombero Valley and Lower Rufiji, fostering sustainable livelihoods development and more effective natural resources governance within the decentralization framework.
RESULTS (OUTPUTS)	1 Key resource users (wildlife, forest, fisheries, land & water) are organized to manage their resource base on wise principles within the framework of Community Based Natural Resource Management.
	2 Key resource users, transformers and traders (wildlife, forest, fisheries, grazing land, water etc) organized to derive sustainable economic benefits from wise resources management through access to markets and sound business management.
	3 Strengthened capacities of central, regional and local government structures to support and monitor the implementation of policies at local level and improved coordination between Natural Resource governance stakeholders at all relevant levels.

Global appreciation

Global appreciation of the intervention	Global appreciation of the intervention
<p>KILORWEMP project has been implemented, apart from its own overall and specific objectives, with the aim of complementing other efforts such as those of wildlife Sub-sector in the Ministry which is governed by the Vision of “Sustainable conservation of wildlife and wetlands resources” that pillared to a Mission which focuses on conservation, management and development of wildlife and wetland resources and ensure sustainable utilization that will contribute towards poverty reduction” through the following elements: The same is appreciated in other area of intervention of key resources, forestry and fishery.</p> <ol style="list-style-type: none"> 1. Promotion of participation of stakeholders in conservation and sustainable utilization of Wildlife and wetland resources which is appreciated through result area one by forming CBNRM institutions (WMAs, VFRs and BMU) 2. Promotion of wildlife and wetland resources for economic development appreciated through result area two by developing mechanisms (business cases of the resources –Wildlife and Forest) and 3. Promotion of information sharing and exchange of expertise nationally, regionally and internationally and administration and regulation, appreciated through result area three that encompasses landscape issues. 	<p>Results exist which open up opportunities (better information base, formalised devolution in important landscape sites, viable community forestry sites, critical institutional systems, innovative PPP scheme, the foundation of KVRs IMP, lessons about what works, suggested adaptations of policies, standards, strategies). We have striven to build on national systems: agencies, people, laws. The implementation faced fundamental changes in the landscape and institutional sector. The strategy was ambitious and at times stretched between local and regional processes, and across two landscapes. The overall efficiency was lowered significantly midway by the drifting sense of direction arising in the landscape tasks. The project has invested intensely in processes: sometimes, these generate less visible outputs but longer lasting outcomes. The recommended follow-on actions are mainstreamed to seek sustainability.</p> <p>The global trend for wetland is loss. Kilombero Valley has lost a lot of nature while enabling a booming agrarian economy. The Tanzanian society needs to seek a new balance. Worldwide, conservation plays a catch-up game with changes in societies; more so in the project’s context. The frequent risk is that social and economic changes outpace conservation’s ability to sharpen its tools for the new challenges. Raising the institutional capacity to collaborate at all levels is usually very beneficial; this needs sustained effort.</p>
Score your global appreciation of the intervention:	Score your global appreciation of the intervention:
Satisfactory	Satisfactory
National execution official	Enabel execution official
Pellage F. Kauzeni, National Project Coordinator	Giuseppe Daconto, ITA and Co-Manager
	

EXECUTIVE SUMMARY

The project was executed in a **context** of institutional transformation of the wildlife administration and lower profile of the wetland management framework and NRM devolution. The execution benefitted from synergies in the forestry sector and with international research programs. It suffered from weak coordination with the land sector. The project remained relevant to economic sectors including hunting, agriculture, forestry, livestock and fisheries; its outcome is also affected by decisions in the energy sector.

EU co-funding enabled reshaping of the original project's design, increasing its relevance to landscape level environmental management in Kilombero Valley. However, inter sector coordination weakness challenged significantly the efficiency of the execution of the landscape component.

In the **CBNRM domain**, the project established 2 Wildlife Management Areas and 5 Village Forest Reserves. It provided extensive support to capacity development (institutional systems, skills, hardware). It established 7 BMUs with varying degrees of success. It has achieved satisfactory progress in capacity development and networking. Delays in CBNRM establishment, business development and in enabling long-term partnerships have weakened the immediate outcome. GoT and LGAs have been supportive of NGO partnerships; transparency of local governance processes and resource status have partially supported the strategy; limited institutional (budgetary) support to CBNRM, high land pressure, delayed granting of user rights and delayed CBNRM reforms have contributed to limiting immediate outcomes in this domain.

In the **landscape management domain**, the project produced: (1) A set of landscape assessments and consultations which improved the understanding of land use and its change over time; land tenure; fisheries; pastoralism; (2) A set of assessments of the Kilombero Game Controlled Area which improved the understanding of the basis for its consolidation, including tenure and options for consolidation. (3) the Foundation of the Integrated Management Plan for the KVRS. Complementary activities included: 1) Preparation of an Inter-Ministerial Coordination Framework between MNRT and MLHSD to enable synergy and harmonization between the KGCA consolidation, the KVRS management and MLHSD led land tenure regularization across the whole valley: its implementation remained very challenging. 2) Support to WD/TAWA Task force for the KVRS management, including capacity building on wetland landscape management. 3) Public awareness of wetland conservation values in Kilombero valley, via ad-hoc events and district level workshops. 4) The project facilitated an Advisory Mission by the Ramsar Secretariat in October 2016, which provided strategic recommendations to GoT to strengthen the sustainable management of the site. 5) Capacity building of TAWA staff on land and habitat survey via spatial analysis and geotagging ground and aerial photography. TAWA was also equipped with a land reconnaissance survey kit.

In the same domain, the project has contributed very significantly to improving the understanding of environmental change and wetland management priorities; supported capacity development of key stakeholders (national agencies, local government) by engaging them in reviews of analysis and conflict resolution options; identified opportunities for policy review (technical analysis, documented lessons

learned, policy implementation review processes), however these have delivered limited direct results during the project's lifespan; supported extensive processes of networking and dialogue among stakeholders; however it has achieved little institutionalisation of these processes during the project lifespan; generated a vision and priorities for institutionalisation of landscape coordination through the IMP foundation. The outcome is reinforced by political support to wetland conservation in the landscape; is only partially supported by GoT agencies' participation in the IMP process, adaptation and mainstreaming of conservation plans, policy review processes, and interagency collaboration in land use planning. Hindering factors have included the very early stages of implementation of the Rufiji IWRMP and the weak coordination with MLHHSD/LTSP. Uncertainty still surrounds decision making about the KGCA consolidation (ongoing) and follow-on actions towards implementing the recommended wetland management measures.

Infrastructure and main supplies included: 2 offices for WMAs; office for Ulanga DC Wildlife Unit; 2 offices for TAWA Rangers; patrol vessels for TAWA and LGAs; equipment for the CBO game scouts.

Recommended operational follow on actions are:	
1) Extend support to WMAs and VNRCs in business establishment – support revenue sharing schemes for cost recovery	LGAs with NGOs
2) Allocate own resources to CBNRM support (for monitoring and capacity development)	LGAs
3) IMP Foundation – Essential Plan: establish a committee with 4 LGAs, MNRT (TAWA), VPO, MLHHSD, RBO. Pursue fiscal measures. Pursue and monitor priority action plans already identified. Sustain stakeholder dialogue on vision and harmonization. Engage other actors: NGOs, private sector. Prepare funding for phase III.	TAWA VPO LGAs RAS Moro RBO MLHHSD
Recommended actions for the review of technical standards are:	
4) Adapt guidelines for BMUs to riverine capture fisheries	MLF
Recommended policy review actions are:	
5) Review WMA Regulations: streamline establishment requirements and increase revenue retained by WMAs	WD
6) Review Forestry PPP plan with KVTC and enable conducive royalties' regime	FDB
7) Review evidence for mesh size and effort restrictions in riverine capture fisheries	MLF
8) Review lessons learned from KILORWEMP and identify policy measures to strengthen wetland and landscape management in absence of wetland policy and specific statutory tools for landscape management	VPO WD

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Acronyms

		IUCN	International Union for Conservation of Nature
ASDP	Agricultural Sector Development Program	JFM	Joint Forest Management
AWF	African Wildlife Foundation	JLPC	Joint Local Partnership Committee
BDS	Business Development Services	KDC	Kilombero District Council
BLS	Baseline Study	KGCA	Kilombero GCA
BMU	Beach Management Unit	KVRS	Kilombero Valley Ramsar Site
BRN	Big Results Now	KVTC	Kilombero Valley Teak Company
BTC	Belgian Development Agency	LF	Logical Framework
BTC HQ	Belgian Development Agency Headquarters	LNR	Land and natural resources
BTC TZ	Belgian Development Agency Tanzania	LTSP	Land Tenure Support Programme
CBFM	Community Based Forest Management	LUP	Land Use Plan / Land Use Planning
CBNRM	Community Based Natural Resource Management	M & E	Monitoring and Evaluation
CBOs	Community Based Organizations	MAFSC	Ministry of Agriculture Food Security and Cooperatives
CEPA	Communication, Education and Public Awareness	MCS	Monitoring, Control and Surveillance
CFM	Collaborative Fisheries Management	MEPE	Ministry of Planning and Economic Empowerment
CGMET	Community Based Monitoring and Evaluation Tool	MGCD	Ministry of Gender, Women and Child Development
CMT	Council Management Team	MH	Ministry of Health
COGEST	Co-management (BTC financial management system)	MLCA	Ministry of Law and Constitutional Affairs
CSO	Civil Society Organisation	MLF	Ministry of Livestock and Fisheries
CWMAC	Community Wildlife Management Areas Consortium	MLHSD	Ministry of Lands, Housing and Human Settlements Development
DALDO	District Livestock Development Officer	MNRT	Ministry of Natural Resources and Tourism
DANIDA	Danish International Development Agency	MOEVT	Ministry of Education and Vocational Training
DBO	District Beekeeping Officer	MoF	Ministry of Finance
DC	District Commissioner	MoL	Ministry of Livestock Development
DCDO	District Community Development Officer	MoU	Memorandum of Understanding
DED	District Executive Director	MOW	Ministry of Water
DeNRM	Decentralized Natural Resources Management	MTR	Mid Term Review
DEO	District Education Officer	NAFCO	National Agriculture and Food Corporation
DFO	District Forest Officer	NAWESCO	National Wetlands Steering Committee
DFsO	District Fisheries Officer	NEMC	National Environment Management Council
DFT	District Facilitation Team	NGO	Non Governmental Organisation
DGO	District Game Officer	NORAD	Norwegian Agency for Development Cooperation
DHRO	District Human Resources Officer	NP	National Park
DLNRED	District Lands Natural Resources and Environment Department	NPWP	Negotiated Procedure without publication
DNRO	District Natural Resource Officer	NR	Natural Resource
DPLO	District Planning Officer	NRM	Natural Resource Management
DPT	District Project team	NTFP	Non Timber Forestry Product
DSC	Directorate for Sector Co-ordination	NWMS	National Wetlands Management Strategy
DSM	Dar es Salaam	NWWG	National Wetlands Working Group
DT	District Treasurer	ODCP	Organizational capacity development plan
DWE	District Water Engineer	OD	Organizational development
DWG	District Working Group	PFM	Participatory Forest Management
EA	Execution Agreement	PLUM	Participatory Land Use Management
EU	European Union	PO	Project Officer
FBD	Forestry and Beekeeping Division	PO-RALG	President Office Office Regional Administration and Local Government
FE	Final evaluation	PPP	Private Public Partnership
FMP	Forest Management Plan	PS	Permanent Secretary
FR	Forest Reserves	PTT	Project Technical Team
GCA	Game Controlled Area	RAS	Regional Administrative Secretary
GEF	Global Environmental Fund	RBO	River Basin Office
GIS	Geographic information system	RDC	Rufiji District Council
GoT	The Government of Tanzania	REDD	Reducing Emissions from Deforestation and forest Degradation
GR	Game Reserve	RNRO	Regional Natural Resources Officer
ID	Impact driver	RUBADA	Rufiji Basin Development Authority
IDCP	Indicative Development Cooperation Program	RUMAKI	Rufiji, Mafia and Kilwa
IMP	Integrated Management Plan		

SACCOS	Savings and Credit Cooperative Society	USAID	United State Agency for International
SAGCOT	Southern Agricultural Growth Corridor of		Development
	Tanzania	VAT	Value added tax
SGR	Selous Game Reserve	VC	Village Council
SOW	Scope of Work	VEO	Village Executive Officer
SRESA	Strategic Regional Environmental Assessment	VFR	Village forest reserve
STEP	Southern Tanzania Elephant Program	VICOBA	Village Community Bank
SWMP	Sustainable Wetlands Management Project	VLUP	Village Land Use Plan
TA	Technical Assistance	VNRC	Village Natural Resources Committee
TANAPA	Tanzania National Parks	VPO	Vice President's Office
TANESCO	Tanzania Electric Supply Company	VPO-DE	Vice President's Office - Department of the
TAWA	Tanzania Wildlife Management Authority		Environment
TFF	Technical and Financial File	WCST	Wildlife Conservation Society of Tanzania
TFS	Tanzanian Forest Service Agency	WD	Wildlife Division
TOC	Theory of Change	WDC	Ward Development Committee
TRA	Tanzania Revenue Authority	WEO	Ward Executive Officer
UDC	Ulanga District Council	WMAs	Wildlife Management Areas
UNP	Udzungwa National Park	WO	Ward Office
URT	United Republic of Tanzania	WUA	Water Users Association
		WWF	World Wide Fund for Nature

PART 1: Results achieved and lessons learned

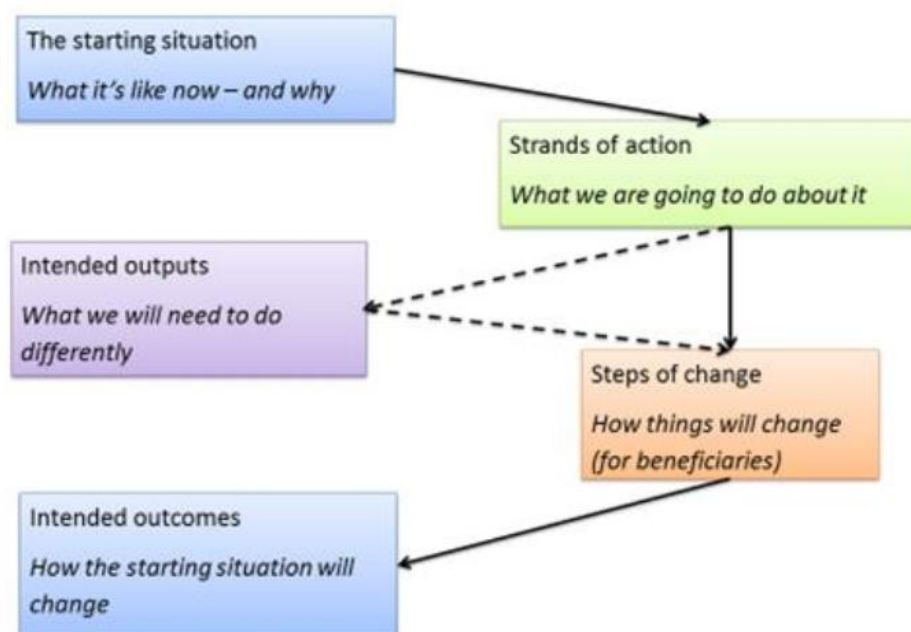
The achievement of the project is analyzed using the Theory of Change (ToC) developed during the Inception Phase. This ToC built on the original project's result framework by proposing:

- 1) How the outputs of the project would enable pursuing the intended impact;
- 2) What were the key assumptions supporting this change process;
- 3) What were the key enabling factors ensuring progress towards the intended goal.

What is a theory of change?

It is an approach to planning, implementing or evaluating change at an individual, organisational or social level. It is relevant when a complex, multi-strand project seeks to pursue change in a intricate context with multiple actors and dynamics at play. In these situations, the impact of activities is often non-linear and predictable and is influenced by many factors, of different degrees of controllability and probability.

A theory of change articulates explicitly how a project or initiative is intended to achieve outcomes through actions, while taking into account its context. Traditional input–output evaluation methods, based solely on either outputs (data relating to practitioner actions) or outcomes, typically do not explain the causal chains that influence outcomes. How do we know why a particular action works? Who does it work for? In what circumstances? If a relationship is not discovered, is this due to implementation failure (i.e. the action was not delivered in the way it was expected) or programme failure (i.e. the action does not work)? Developing a theory of change for an initiative changes the way of thinking from what you are doing to what you want to achieve. We can articulate how we expect outcomes to be achieved:



Based on: Laing, K. and Todd, L. (eds) (2015) Theory-based Methodology: Using theories of change in educational development, research and evaluation. Research Centre for Learning and Teaching, Newcastle University

1 Assessing the intervention strategy

1.1 Context

1.1.1 Institutional Context

We summarise here the evolution of the sector's framework during the implementation period.

1) Wildlife sector:

- a) GoT established the **Tanzania Wildlife Management Authority** (effective May 2014, operational from July 2016) by spinning off to the new parastatal the executive functions previously delivered by the Wildlife Division. WD has remained as a policy and oversight department. The transition has taken the best part of the execution period and to some extent is still ongoing, while TAWA strengthens internal structures and functioning. This reform pursues increased effectiveness in law enforcement, revenue generation, and retention. The authority is established as a paramilitary organization. The implication of this reform over the devolution of wildlife management (i.e., WMAs) did not feature strategically in this reform nor it arises in TAWA's strategy¹. WD has retained oversight on the authorization of WMAs and their performance, through a much smaller CBC Unit. TAWA is meant to support WMAs operationally (and chiefly for law enforcement). TAWA needs to assertively raise own revenues. This drive may provide a disincentive to devolve wildlife resources to WMAs. Part of the renewed law enforcement drive includes the demarcation of protected area boundaries. The Prime Minister in October 2017 directed MNRT to demarcate all PAs countrywide and this effort has been pursued and has also been implicated in the consolidation of the Kilombero GCA.
- b) This **transition** has been marked by significant turnover in MNRT during the implementation period. The Director of Wildlife changed four times. Most staff of WD, including the project NPC, were moved to TAWA after complex transition phases. The project was originally anchored within WD and later maintained a dual reporting channel: TAWA oversees operational PA issues (e.g., the GCA) while WD maintains oversight on WMAs.
- c) The public discourse on conservation has been shaped by a **poaching crisis**. This has dominated the national and international attention in the sector (and especially over the elephant population crash in Africa and in Tanzania in particular²). This focus has placed law enforcement at the center of sector reform and the international conservation agenda³.
- d) The **WMA conservation model** of devolution has nominally spread and capacity development efforts have continued through external financing and with the growth of the national WMA Association. At the same time, the evolution of the model has stagnated under important aspects. A WMA sector

¹ TAWA Medium-Term Strategic Plan: 2018/19 - 2022/23

² Tanzania's dwindling elephants Big game poachers. Claims of links between politicians and poachers merit further investigation
Nov 8th 2014 The Economist

³ THE ARUSHA DECLARATION ON REGIONAL CONSERVATION AND COMBATING WILDLIFE/ENVIRONMENTAL CRIME. November 2014.

review study carried out in 2013⁴ recommended capacity development and the strengthening of economic incentives. These recommendations were echoed at a number of national fora. A seminal impact evaluation study⁵ ⁶ pointed out the limited economic and environmental benefits of WMAs and sometimes their social costs. A regulatory reform to simplify the establishment process and to increase the percentage of revenues accruing to the WMAs has not been delivered, yet.

- e) There was an expectation of **regulatory development** under the Wildlife Conservation Act, beyond revised WMA Regulations. The preparation of regulations for GCAs (foreseen by the WC Act 2009) is directly relevant to the project. The unavailability of this regulatory framework contributed to the challenges in shaping the project's approach under Result area #3. MNRT initiated the preparation of **GCA Regulations**; these have not been gazetted, yet. MNRT also prepared **Regulations for Wildlife Corridor, Dispersal Areas, and Buffer zones**; these were gazetted in 2018 and KILORWEMP PIU provided some technical inputs during the preparation and consultation process. The very recent finalization of these regulations and the limited technical review of its final shape do not allow to examine them in detail in this report. We highlight that they provide opportunities for rationalization of often contentious areas near PAs (including within the project's target area); it will also be important to assess their implications for conservation models over village land, including WMAs.

2) Wetland management:

- a) The MNRT's **Sustainable Wetland Management** project (SWMP) spearheaded the preparation of a national framework for wetland management. The project was completed in 2013, during the inception phase of KILORWEMP, whose design was shaped directly by the SWMP strategy. It produced a set of technical guidelines on wetland management. These guidelines were based on CBNRM and devolution across the five sectors of wildlife, forestry, fisheries, land and water resources. The reform process did not establish wetland management as a separate policy domain, hindered by two major hurdles: (a) the establishment of a central level inter-sectorial coordination platform (NAWESCO) could not be sustained effectively and eventually waned; (b) a **sector approach to NRM devolution (DeNRM)**, proposed during the early 2010s, did not gain Government's support and momentum. Therefore, the wetland management model by default relied on sectorial instruments of devolution, each with their strengths and weaknesses. KILORWEMP's implementation represents an attempt at delivering and consolidating this model at the local scale, and to overcome its limitations at the ecosystem scale (see IMP analysis and outputs).
- b) The **policy mandate** over wetland management has gradually shifted from MNRT (where it originated) to VPO. However, this transition remains an unfinished business and has had a very low profile:

⁴ USAID. TANZANIA WILDLIFE MANAGEMENT AREAS (WMA) EVALUATION FINAL EVALUATION REPORT. July 15, 2013

⁵ <https://www.ucl.ac.uk/pima/>

⁶ Bluwstein, J. et al. A quasi-experimental study of impacts of Tanzania's wildlife management areas on rural livelihoods and wealth. Sci. Data 5:180087 doi: 10.1087/sdata.2018.87 (2018).

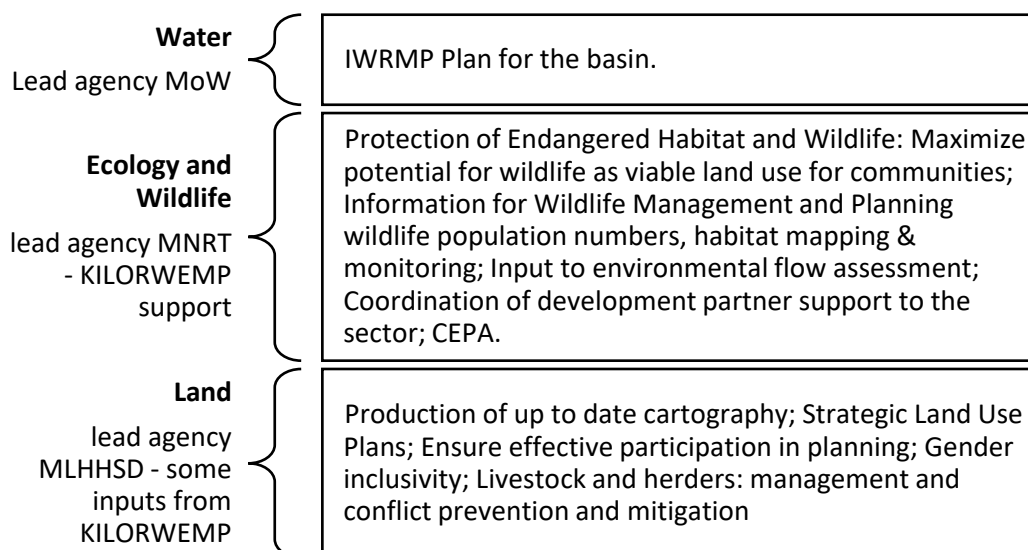
- i) the preparation of a regulatory framework for wetland under EMA2004 has been in the making since 2012 but remains in the drafting stage;
 - ii) VPO has gradually assumed a policy level role under the purviews of EMA 2004 but has not and may not develop in the near future the operational capacity to manage wetland sites;
 - iii) MNRT (via TAWA) has maintained its focus on wetland site management, its Ramsar site managers, and has increased resources to them at least in the Kilombero Valley; nevertheless, the Wetland Unit (now absorbed in TAWA) has seen a much-diminished role and resourcing after the termination of the SWM project. Other Ramsar sites remain underfunded.
 - iv) The connection between VPO as policy body and MNRT as executive agency on wetlands remains ad hoc and generally loose.
- c) We refer to our IMP Institutional feasibility study for a more comprehensive review of the institutional framework for wetland management and of environmental management at the landscape scale.
- 3) Forestry sector. This underwent a similar transition with the establishment of a parastatal (Tanzania Forestry Service). TFS oversees all state forest reserves and plantations. The CBNRM system has remained in place under the supervision of the Forestry and Beekeeping Division, retained under MNRT. In 2017 MNRT launched a revision of the National Forestry Policy.
- 4) Local government: LGA subdivisions progressed steadily. In 2015 Ulanga District split into two districts of Malinyi and Ulanga; Kilombero District split with the establishment of Ifakara Town Council in 2016. Several villages in Kilombero and Ulanga Districts have been or are being subdivided. Rufiji District split in two Districts of Rufiji and Kibiti Two villages in Rufiji were upgraded into township status. This rapid evolution in local government authorities raised challenges with regard to consultative processes, absorption capacity, and priorities of the LGAs. It also raised the bar with regard to land conflict mitigation and land use planning.

1.1.2 Harmo-context

During the initial phase of the project, there was an attempt, spearheaded by DPs⁷, to strengthen coordination among donor-funded initiatives in the Kilombero Valley. This was driven by the prominence of agriculture development in this region under SAGCOT and BRN initiatives. This momentum peaked with the preparation of an SRESA by GoT/WB in 2013. The SRESA⁸ recommended a three-pronged sector coordination effort, under the overall coordination role of the Prime Minister Office and SAGCOT Centre. The three legs were:

⁷ Development Partners Group on Environment in June 2013

⁸ THE UNITED REPUBLIC OF TANZANIA. PRIME MINISTER'S OFFICE. Southern Agricultural Growth Corridor of Tanzania (SAGCOT). Investment Project. Strategic Regional Environmental and Social Assessment (SRESA). December 2013.

Figure 1. Landscape coordination framework foreseen by SAGCOT SRESA 2013.

KILORWEMP adapted its agenda (i.e., revised work plan under R#3) by and large in line with the above recommendations, to assist MNRT in fulfilling the proposed role. However, the expected overarching coordination effort never gained momentum with the exception of the attempted coordination MNRT-MLHSD, of which more below. Information sharing remained patchy, made of ad-hoc initiatives and without sustained coordination. Donor-funded projects proliferated along with GoT sector's initiatives; coordination attempts were more temporary than sustained over time. Eventually, SAGCOT shelved Kilombero Valley as a priority cluster and has concentrated on other clusters.

A new project on Land Tenure Regularization (LTSP) targeting the same area as KILORWEMP was launched in January 2016 by the Ministry of Land (MLHSD). The project is funded by DFID, SIDA, and DANIDA. A significant potential overlap of agendas arose about the KGCA boundary consolidation and major confusion of roles arose in early 2016 when KILORWEMP was about to scale up its R3 activities. At the same time, this represented a major opportunity for synergy and inter-ministerial collaboration. The Belgian Embassy and EUD facilitated harmonization and coordination among Development Partners. A coordination framework between the two Ministries was eventually elaborated by the PIUs of the two projects, and signed by both MNRT and MLHSD. However, its execution mostly waned after the first phase and agendas diverged due to the inability to maintain coordination momentum. This is reviewed more in detail below.

KILORWEMP established in 2013 a close cooperation with the Finnish MFA- funded project "National Forestry and Beekeeping Project II" via a Memorandum of Understanding. This MoU enabled the joint financing of a feasibility study of a forestry scheme on private land for community benefit identified by the project along with the private partner and landholder (Kilombero Valley Teak Company). The partnership enabled KILORWEMP (a multi-sector project anchored in WD) to align more closely its forestry activity with the national framework of participatory forest management.

The feasibility study informed the formulation of a follow-on PPP concept. A MoU was signed among BTC, KVTC and the NGO AWF (executing a Dutch-funded environmental project contracted to IUCN). The MoU, witnessed by MNRT, was to enable the co-financing of the PPP scheme. The three parties pledged about 100,000 USD each for the first phase. However, the implementation did not take off for the lack of a conducive tax scheme, as presented below.

The project established direct collaboration with the SWOS project⁹ on wetland monitoring (funded by EU Horizon 2020) and the wetland ecosystem research project GlobeE¹⁰ (funded by the German Ministry of Environment). This collaboration produced joint landscape analysis and tangible outputs such as land cover and use assessment (see KQRS land Diagnostic Study Report) and a research paper¹¹.

The project maintained a dialogue with USAID funded interventions and namely: the IRRIP project, funding the feasibility of irrigation schemes in the valley and an Environmental Flow Assessment of the Kilombero river catchment. Data and information exchange were pursued. And PROTECT (wildlife conservation at national scale): we established collaboration to support the preparation of the MNRT regulations for wildlife corridors.

1.1.2.1 Complementary Belgian Financing

The project availed of a contribution from the Scholarship Project of BTC Belgian Aid funding. While technically this is not a KILORWEMP resource, practically this represents a net contribution to the KILORWEMP's result framework. This synergy derives from the BTC's strategy of closely coordinating its capacity building support via the Scholarship Project with its portfolio of ongoing projects.

Table 1. Budgetary contribution from other BTC sources to KILORWEMP.

Project	Activities	EUR
Scholarship project	<ul style="list-style-type: none"> Capacity building on WMA business Planning Capacity building on legislative drafting for MNRT staff Capacity building in forest inventories for DFOs Capacity building in fisheries management 	46,554
Belgian Tanzania Study and Consultancy Fund	<ul style="list-style-type: none"> Ramsar Advisory Mission Stakeholder workshop 	54,797
Grand total		101,351

⁹ <http://swos-service.eu/>

¹⁰ http://www.ilr.uni-bonn.de/agpo/rsrch/globe_wetlands/globe_wetlands_e.htm

¹¹ Leemhuis, Constanze, et al. "Sustainability in the food-water-ecosystem nexus: the role of land use and land cover change for water resources and ecosystems in the Kilombero Wetland, Tanzania." Sustainability 9.9 (2017): 1513. <http://www.mdpi.com/2071-1050/9/9/1513/htm>

The project has further benefitted from additional resources of BTC through the **Junior Programme**: BTC has mobilized 41 person-months of Junior Assistants since inception, as net input (no cost) to the project.

1.1.2.2 Overall co-financing leverage

The project (original BEL budget) leveraged co-financing as follows:

Table 2. Leveraged cofinancing.

Source	Purpose	Euro
Effective		
EU IMDA		3,000,000
BTC Scholarship Project	Capacity building activities	54,797
Belgian Tanzania Study and Consultancy Fund	Ramsar Advisory Mission	46,554
Kilombero Valley Teak Company	Forestry PPP feasibility	17,982
Nat. Forestry and Beekeeping Project, Finnish MFA	Forestry PPP feasibility	19,988
Total		3,139,321
Pledges ¹²		
Kilombero Valley Teak Company (pledge)	Forestry PPP pilot phase	140,000
African Wildlife Foundation (pledge)	Forestry PPP pilot phase	90,000
Total		230,000

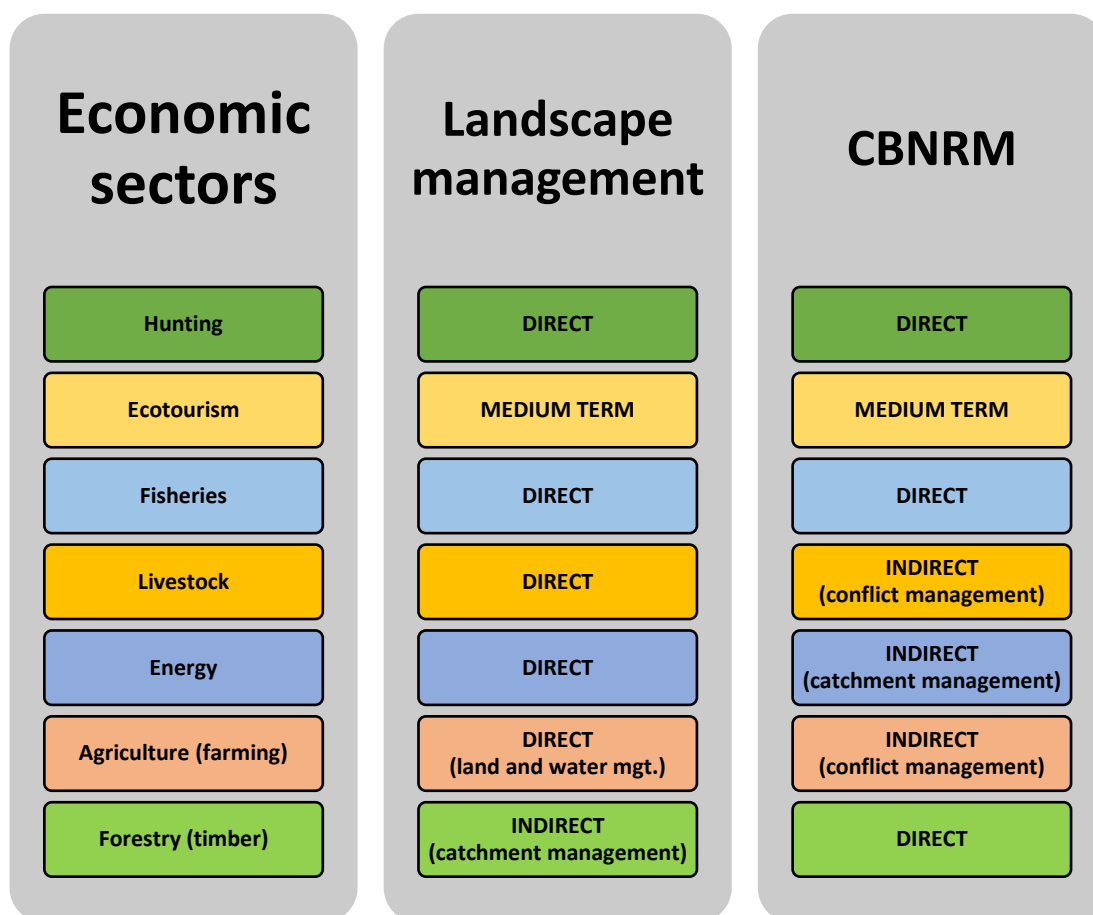
Therefore, the total funds leveraged by the original Belgian funding amount to 3,4 M Euro (inclusive of EU co-funding), determining a leverage ratio of 85 % of the Belgian Aid project budget.

¹² Based on signed MoU in 2016. Not realised due to inability to kick-off PPP implementation. See later in this report.

1.1.3 Economic Context

The project's strategy is related directly or indirectly to the economic sectors identified below. The cross-cutting administration sector of land is also relevant.

Figure 2. Economic sectors of interest (direct/indirect) for the project.



Land. The land sector needs to equip itself with growing multi-sectoral land uses (farmland expansion, energy, mining, conservation and lateral expansion of urban areas)¹³. Implementation of the existing land administration framework across the country is very limited due to capacity bottlenecks. About 43.7% of the total land area is somehow protected (or conserved) whereby wildlife protected areas (including Game Controlled Areas) cover at least 28% of the total land area of mainland Tanzania, while forest reserves cover around 15.7%. The reserved land is under growing land pressure due to demographic growth and economic development. In a recent survey of perceptions among LGAs countrywide, 68.8% of respondents indicated growing forest losses¹⁴. Fertile alluvial plains such as the Kilombero and Rufiji's floodplains are hotspots of land pressure and conflicts. GoT has prioritized Kilombero valley for land regularization with donor support. Assessment of land use

¹³ Kimaro, Didas N., and Proches Hieronimo. "Land for Agriculture in Tanzania: Challenges and Opportunities." *Journal of Land and Society* 1.1 (2014): 91-102.

¹⁴ URT. National Audit Office. Study on The Status of Environment with A Focus on Land Degradation, Forest Degradation and Deforestation. A Report of The Controller and Auditor General of Tanzania. March 2018

changes, regularization of land tenure and strengthening of land use planning at regional and village scales were core project's domains.

Hunting. The hunting industry in Tanzania has been on a rapidly accelerating decline, under the double weight of ever decreasing wildlife populations and international sanctions on trophy trade. Consumptive wildlife use represents the main revenue source for the conservation of GRs and GCAs, as well as WMAs and open areas. WMAs are meant to enable hunting on village land, however their performance is hindered by high transaction costs. In 2014 MNRT suspended local hunting due to concerns over the sustainability and transparency of its operations supervised by LGAs. This impacted directly the project, as local hunting had been identified during the baseline as an early win for WMAs with encroached habitats such as those in the project's area. Concessionaires returned about half of the hunting blocks country-wide by 2017. The leading company in the country abandoned the sector in early 2018. Concessionaires abandoned the hunting blocks across the KGCA in the late 2000s, except a viable concession in the southern end of the valley (the project developed a consolidation action plan for this site). The re-establishment of the KGCA and the WMAs offer medium term opportunities for the re-establishment of hunting in the landscape.

Fisheries. Artisanal capture fisheries are a minor sector in official statistics. This is due more to the informality of the sector than its real economic and social significance¹⁵. Our estimate of the total direct sale value of fisheries in Kilombero Valley exceeds 25 million USD per year¹⁶. Lower Rufiji's fisheries are also very productive. This long-established sector supports a very extensive trading network that sustains food security and supplies proteins to a large population. This sector also plays an economic role of social security as it usually attracts large numbers of economically marginal people. The sector's productivity depends on maintaining the river's natural hydrological cycle and the seasonal flood, more than any direct management measure. CBNRM intends to establish an institutional framework via Beach Management Units (BMUs). The KGCA re-establishment may have important implications for over 15,000 fisherfolks plus the wider value chain, depending on the management regime.

Eco-tourism. In 2016 tourism and travel generated¹⁷ directly USD 2.1 billion in 2015, or 25% of foreign earnings, and constituted 4.7% of GDP. Its total contribution was estimated at 5.9 b USD or 13.3% of GDP. Since 2004 tourism has been growing at a rate of 10% per annum¹⁸. It directly employs 600,000 people and up to 2 million people indirectly. The sector will increasingly be the main economic underpinning of conservation, with lingering question-marks over areas with marginal suitability for it (many in the south). TANAPA, NCCA, and the private sectors are solid players mostly in the North. TAWA (which oversees 79% of the total size of protected areas) and the southern sector are the new players. Ecotourism is already the main source of revenues for those WMAs which have significant revenues. MNRT with support from WB launched in early 2018 a large-scale project (REGROW) to support the stabilization of conservation and the growth of the southern tourism circuit. A regional growth of this sector (lack of transport infrastructure is a major bottleneck)

¹⁵ Béné, Christophe. "Small-scale fisheries: assessing their contribution to rural livelihoods in developing countries." (2006). FAO.

¹⁶ KVRIS Fisheries Diagnostic Study. KILORWEMP. 2017.

¹⁷ World Travel and Tourism Council. Tanzania Tourism Outlook 2017.

¹⁸ Tanzania Tourism Sector Report of 2015

will favor the KILORWEMP's target areas (WMAs, KGCA), which now are at the margin of the industry's attention. An important exception is the thriving sport fishing enterprise in the southern end of the KQRS. Iluma WMA is also negotiating a possible similar enterprise.

Forestry (Timber). Wood product demand¹⁹ is expected to grow strongly, more than doubling in round wood equivalent between 2013 and 2035, driven primarily by the construction sector and paper consumption. When compared to the demand forecast, there remains a supply deficit in the market, which is projected to increase significantly between 2025 and 2035. The supply is mainly from plantations and the growth of small and medium sector. Timber sourcing from natural forests and especially CBFM is relatively marginal. However, market demand supports their business case and will increasingly do so. Our own market study for the PPP scheme supports this positive outlook on demand²⁰. The PPP scheme shaped by the project intends to support the establishment of a viable enterprise by linking CBFM with a major private sector player already established within the landscape. Kilombero Valley's ecosystem's continued functionality depends on the management of the catchment's water tower, partially covered by forest plantations.

Livestock. The livestock sector is large and culturally important. It contributes only 7.4% to Tanzania's GDP and grows at 2.6% reflecting increases in livestock numbers, rather than productivity gains²¹. Our subsector assessment estimates a total annual direct sale value of the sector in Kilombero Valley at around 25 million USD²². Country-wide it has proven difficult to transform this sector through modernization and intensification strategies. Pastoralist practices pursue other economic goals than increased productivity and market supply. Traditionally, livestock grazing is seen as the main driver of protected area degradation and remains the focus of conservation agencies' attention. Most pastoralists especially in the project's area are mixed agro-pastoralists: livestock rearing represents a factor of a more complex traditional pattern of land access and agriculture establishment and growth. The IMP Foundation Plan includes an appraisal of investments to support the modernization and transformation of the sector within the landscape²³.

Agriculture (Farming). The average annual growth rate for the agriculture sector during the period 2006–2014 was 3.9%, lagging far behind services and industry. However, agriculture contributes towards 23% of Tanzania's GDP, employing 70% of the nation's labor force, accounting for 30% of exports and 65% of inputs to the industrial sector. The sector remains mired in low productivity. Land availability is a contested domain: assessments are caught between optimistic projections and indicators of land scarcity. Conversion of marginal (often forest) land and conflicts with reserved land are widespread and probably rising. The present lower profile of Kilombero Valley for SAGCOT after the initial enthusiasm is probably a consequence of the challenges in driving agriculture development plans in contested domains like this area. GoT is launching in 2018 phase II of the Agriculture

¹⁹ UNIQUE. Forestry and Land use GmbH. Tanzanian Wood Product Market Study. Final report for the Forestry Development Trust. November 2017.

²⁰ UNIQUE Forestry and Land use GmbH Feasibility Study for a Management Model of Participatory Forest Management – Final Report. KILORWEMP, KVTG and NFBPII. 2014

²¹ Michael S., Stapleton J., Shapiro B. Tanzania livestock master plan—key findings . October 2017. International Livestock Research Institute

²² KQRS Pastoralism Sector Diagnostic Study. KILORWEMP. 2017.

²³ KQRS Integrated Management Plan. Appraisal of livestock sector investments. KILORWEMP: 2018.

Sector Development Programme. The KGCA consolidation and the KVRs IMP have profound implications for the rice farming subsector.

Energy. Tanzania's demand for energy is growing by 10 % every year reflecting the country's high economic growth. Yet electricity access reaches on 30% of the population and 11 % of the rural population. Growth in energy generation is seen as crucial to supporting industrialization and mining. The project's target area is directly affected by hydropower generation plans: these include 2 schemes (one under extension) already operating in the Rufiji basin upstream of Kilombero Valley; and moreover, the development of the Stiegler's Gorge 2GW dam. The latter project represents a top infrastructure priority for GoT currently. All GoT services including MNRT are sharply focused on this project as of late 2017. Additional hydropower projects are in pipeline for the upstream Kilombero basin²⁴. In addition, GoT granted a gas exploration license to a private company in the center of the KVRs²⁵.

1.1.4 Security concerns

In the course of 2017, the security situation in Rufiji precipitated as a consequence of widespread murderous activity striking villages directly adjacent to the rural area of intervention. Local government officials and office bearers were the targets. The situation received national and highest GoT attention. BTC suspended the deployment of own staff to field areas as a precaution for about 6 months. Normal activities were later resumed following the normalization of the context after security forces' operations.

1.2 Important changes in intervention strategy

1.2.1 Co-financing.

The EU granted a 3M Euro support to the project via a delegated cooperation agreement (IMDA) with BTC. This agreement required extensive negotiations and was eventually signed in November 2014. The co-financing enabled an expansion of landscape-scale activities (see below). It did not introduce a duplication of reporting mechanisms as the IMDA performance was embedded in the existing project cycle. There were implications for the execution modalities (see below). The EUD joined the project's JLPC as a non-voting member.

1.2.2 Result framework.

The RF comprises 3 result areas: (1) the establishment of CBNRM units; (2) the establishment of livelihood returns from them; and (3) the establishment of landscape-level management systems, capacity building processes and policy review feedback.

The RF was validated and evolved during the Inception Phase and baseline study process²⁶. These produced a Theory of Change that confirmed the overall original design; clarified the change pathways sought through the delivery of project outputs; introduced a governance or demand side lens in the CBNRM devolution strategy (this

²⁴ KVRs Integrated Management Plan .Strategic Issues Report, 2018.

²⁵ Ibidem.

²⁶ Explained in detail in ARR2013.

was originally framed as a service supply strategy); it clarified assumptions and “impact drivers”, i.e., the preconditions to achieve impact; and provided a framework for reflective practice beyond result accountability.

The Baseline Study²⁷ further identified and confirmed the priority CBNRM targets, and led to dropping village land use plans and water resource user associations among the R#1 & 2 targets (because the project’s sectorial agenda was too dispersed and there were other donor-funded initiatives supporting those domains).

Figure 3. Original LFA from TFF

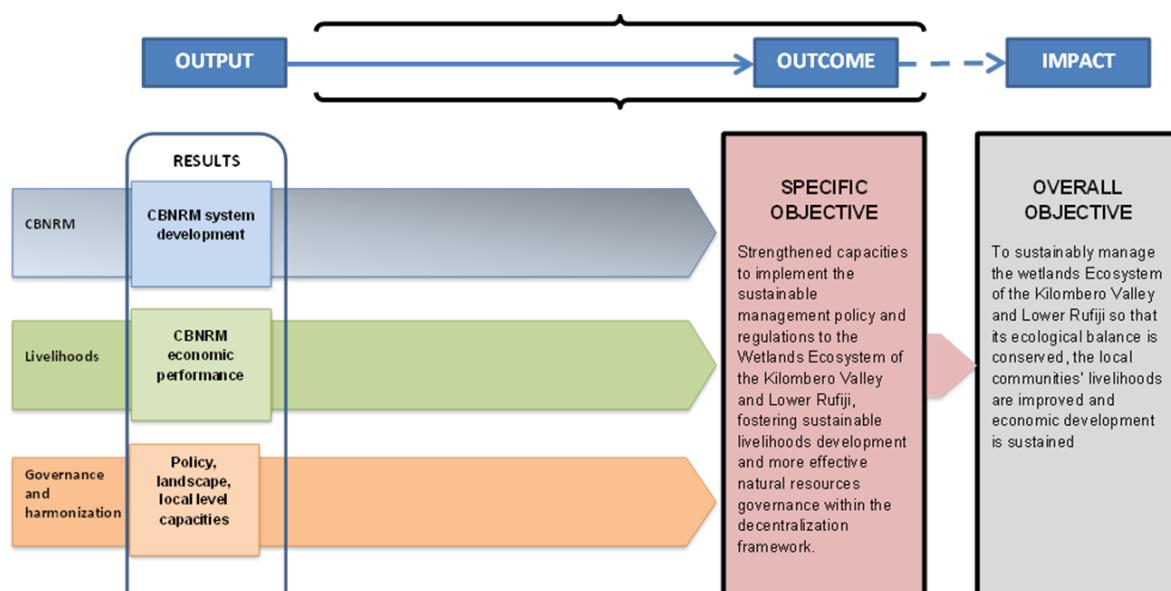
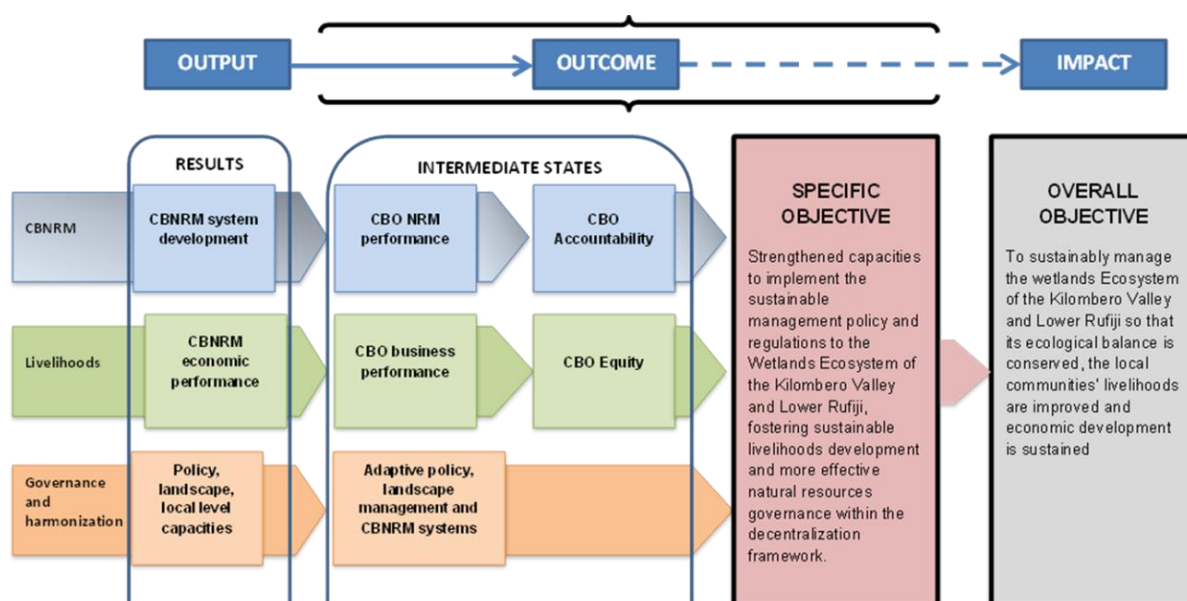


Figure 4. Theory of Change built on the original LFA.



²⁷ Baseline Study Report, 2013.

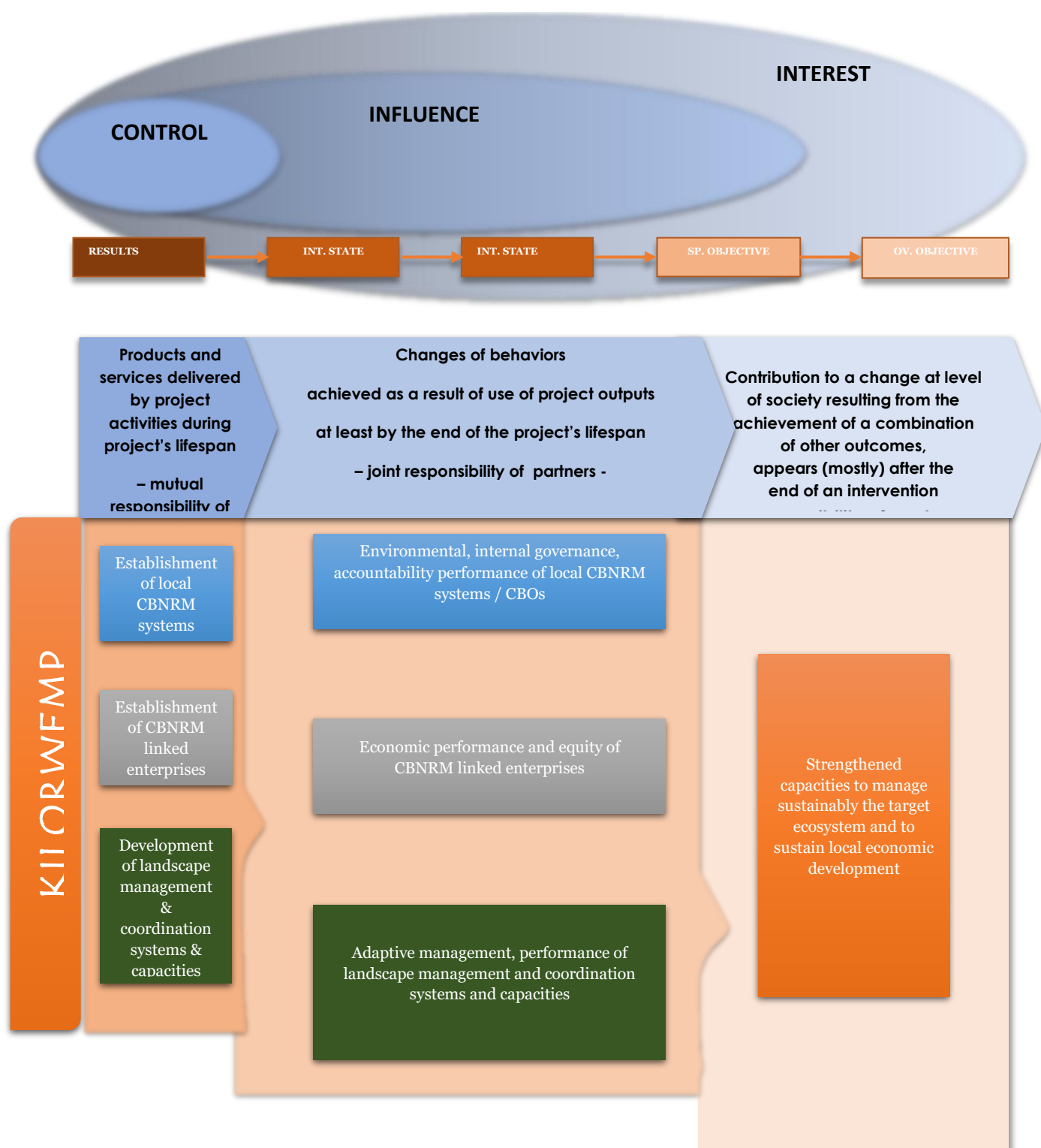
Figure 5. Conceptual map of KILORWEMP's results levels.

Table 3. Summary of project CBNRM targets

	RDC				UDC/KDC	UDC					KDC			
	WMA: Juhivungumwa WMA	CBFM: Mtanza Msona VLFR	CBFM: Mtalula VLFR	BMU: Zumbi Lake	WMA Iluma	CBFM: Libenanga	CBFM: Idunda	CBFM Kichangani	BMUs within Iluma WMA	BMUs in KGCA	PFM-Uhanila VFR	BMUs in Iluma WMA	BMUs in KGCA	LUPs KGCA boundary conflict sites
Baseline set target	1	1	1	3	1	1	1	1	2	1	1	1	2	0
Performance	P	P	A	P	P	P	P	P	P	P	P	P	P	M
P= pursued throughout execution A= Abandoned during execution due to persistent village boundary disputes M= modified due to the evolution of approach to KGCA consolidation task.														

The R#3 component was radically reshaped following the securing of co-financing from the EU. The original design of this component included monitoring of CBNRM; policy review and feedback based on field experiences; and general capacity building. The revised design foresees direct support to the establishment of landscape-scale conservation systems, i.e., the re-establishment of the Kilombero Game Controlled Area and the preparation of an Integrated Management Plan for the Kilombero Valley Ramsar Site.

The Result Framework was later reviewed and marginally amended during the MTR²⁸. The key modifications included: rephrasing of a few indicators to update their relevance to context, especially with regard to R#3; and maintaining focus on the consolidation of existing CBNRM targets rather than pursuing a scale-up strategy.

The execution of R#3 remained complex throughout and is reviewed in detail below. It hit major uncertainties right when the field execution was meant to scale up, due to the unexpected inception of a separate aid funded intervention in the land sector. The project later brokered an inter-Ministerial Coordination Framework between MNRT and MLHSD and adjusted its result framework accordingly (namely, the support to the consolidation of the KGCA shifted to MLHSD, while KILORWEMP would focus on environmental safeguards).

The execution of that Framework soon waned due to coordination issues, right when the expectations among MNRT and stakeholders surged with regard to the consolidation of the Kilombero Game Controlled Area. A stalemate ensued within the project about this component (technical aspects summarized below in this report),

²⁸ See ARR2015.

with major downstream implications: diverging expectations, overall delay in execution (the 2017 R#3 workplan was only approved by the JLPC in November 2017), fundamental uncertainty about the project, loss of a key staff member responsible for CBNRM business development; over-absorption of the PIU in troubleshooting of regional activities and lowering of its inputs to R1+R2 domains; MNRT shifting focus towards the KGCA consolidation and less so on the wider landscape domain / IMP process. These developments not only delayed core activities but also had ripple-on effects on the project's ability to sustain corollary activities such as landscape level public awareness and stakeholder dialogue, due to the fragmented agenda; the uncertainty also led to deferring the contracting of NGOs for business development and governance capacity building as foreseen in the final phase.

These differences were later reconciled (November 2017) through a clarification of the project agenda and the dropping of the support to the preparation of the KGCA GMP among the project's deliverables. The preparation of the KQRS IMP was originally foreseen to last 18 months but had to be compressed to within 7 months; a few foreseen IMP related tasks had to be dropped.

1.2.3 Anchorage within GoT.

The project was originally anchored within WD consistently with the wetland management setup foreseen under the SWM guidelines and intended framework. We have recapped above how this wetland-specific framework lost policy level momentum later.

The project's anchorage remained relevant with regard to the focus on CBNRM and field level execution. The project invested heavily, especially during the first half, in team processes to link the MNRT hosted PIU to the LGA driven execution (Project Technical Team, District Facilitation Teams).

The establishment of an institutional process within MNRT to support the execution of landscape-scale activities remained at times challenging. MNRT established an ad-hoc project Task Force to strengthen the project's anchorage for landscape and policy level activities; this group met somehow regularly to shape the R#3 component during 2014-2015. Later, internal efficiency issues, the TAWA established transition, the major uncertainty and delays hitting the R#3 component in 2016-2017, weakened the team effort. A TF also involving other agencies and LGAs was re-established in late 2017 to drive the IMP process.

The JLPC played effectively its strategic guidance role. MNRT PS chaired regularly all JLPC meetings since 2016. Membership of the JLPC was gradually broadened to include VPO, MLHHSD and Malinyi District. Senior GoT officials (MNRT PS, Morogoro RC) maintained regular attention and presided over most of the key project events. The same applies to the role played by DCs in the District level fora.

Inter-agency harmonization results were modest and hindered by long-term challenges as well as the frequent birth of unexpected activities, such as Task Forces spurred by emergencies and political initiatives. The Inter-Ministerial Coordination Framework MNRT-MLHHSD foresaw a few levels of coordination mechanisms which did not establish momentum. We review more in detail this aspect below.

The ability to convene and sustain stakeholder coordination, which is central to the project's agenda, was mixed. At the local level, the District Natural Resources Advisory Boards played a regular role especially on land conflicts related to WMAs. The project launched an agenda on stakeholder consultations for R#3 activities in 2016. The momentum and consistency later lapsed due to the uncertainty and coordination issues hitting this project component. An intensive process of stakeholder consultations was resumed in the final phase to support the IMP preparation. Solutions have been proposed for a structured, permanent stakeholder coordination platform dedicated to the landscape, which is now lacking and is essential to move forward.

1.2.4 Execution modalities

Execution modalities originally included OWN MANAGEMENT (REGIE) for about 2/3 of the budget and GoT systems (COGEST) for 1/3 of the budget across all components. BTC staff worked in direct execution support to counterparts. There was a joint responsibility towards execution and results.

The balance of financial management modalities changed in 2013 following the signing of the BTC-EU IMDA because the IMDA conditions did not allow the use of GoT administrative systems. Under the General Conditions of the EU IMDA, BTC is meant to play the role of contracting authority, fully responsible for the achievement of results. It can sub-delegate activities, but only under strict conditions which make formal sub-delegation to MNRT and LGAs not possible. BTC was expected to deliver the project by and large via procurement. However, a direct complementary execution role was also allowed possible.

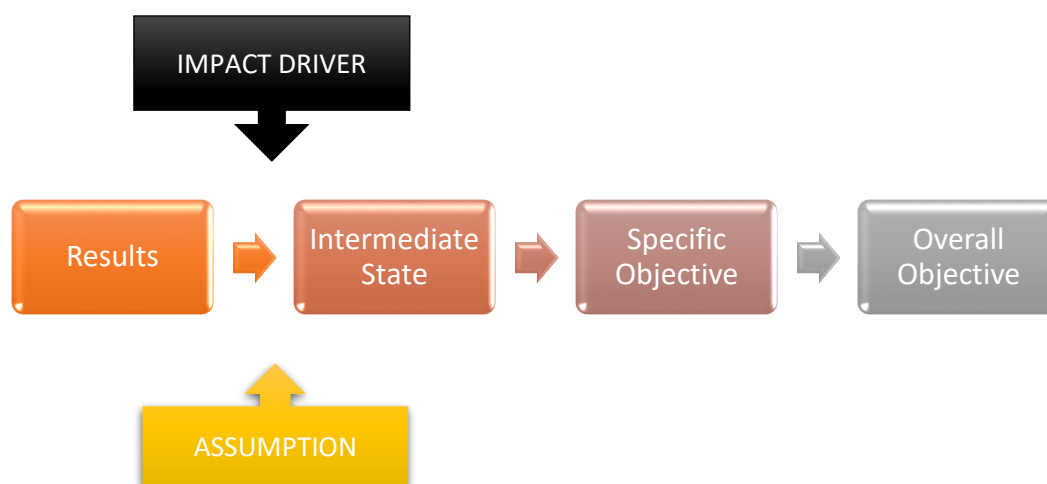
The two systems (IMDA and original Belgian Aid's design) were blended by earmarking the total budget to two components: a "Belgian component" (2M Euro) managed through the BTC system, including COGEST (as per TFF); and "Cofinanced component" (5M Euro) in compliance with EU's General Conditions, whereby BTC administers resources under REGIE to (a) Procure services, supplies, and works (b) Executes directly via own staff and with inputs from MNRT and LGAs (including payment of their staff's travel costs).

Additional changes execution modalities during the implementation were:

- 1) Execution Agreements with LGAs for the execution of CBNRM activities were discontinued in 2015 after the first cycle because the system proved cumbersome to administer and moreover did not enable the planning flexibility required in view of the pilot nature of most CBNRM activities. Execution through annual plans contracted to the LGAs proved too rigid and increasing transaction costs. The project continued the execution of CBNRM activities via imprest through the project teams and relied on internal LGA team management mechanisms and the LGA (Council, Ward, Village meetings) oversight and approval mechanisms for accountability and ownership.
- 2) Procurement of services via GoT (MNRT) system proved difficult and was eventually discontinued by JLPC decision in 2015. The project adopted BTC procurement systems also for the COGEST budget. The regional activities under A3 budget heading were transferred to the REGIE modality to enable this (this system was not 100% perfect and had his own delays).

- 3) Granting to NGOs proved challenging. This was foreseen in the project's ToC to enable inputs from civil society to the demand side of the devolution agenda. However, BTC did not have a subgrant mechanism until 2016. The subgrant procedures were not part of the EU 6 pillar assessment and therefore could not be used or the co-financed budget. They (as well as the previous Execution Agreement modality) also had demanding administrative provisions for the relatively small grants foreseen in this project. This fact, combined with the fundamental uncertainty generated in 2016-17 for the R3 stalemate, as well as the delay accumulated for the forestry PPP activity (see below) and the overall stalemate in the R#3 component caused a deferral of NGO engagement. Two NGOs were eventually engaged during the phase-out phase, via service contracts.

2 Results achieved



Legend for KILORWEMP's Theory of Change.

Results: These are produced by project activities, i.e., tangible outputs defined as being mostly in control of the project.

Intermediate States. These are conditions that are expected to be produced on the way to delivering the intended impacts. They provide a pathway to reach outcomes (e.g., towards the project's Specific Objective). They want to capture behavioral changes (of beneficiaries, partners, stakeholders, institutions or individuals, as relevant) influenced by the project activities and results. They are influenced but not controlled by the project.

Impact Drivers. These are significant factors or conditions that are expected to contribute to the ultimate realization of project impacts. Existence of the Impact Driver (ID) in relation to the project being assessed suggests that there is a good likelihood that the intended project impact will have been achieved. Absence of the ID suggests that the intended impact may not have occurred, or may be diminished.

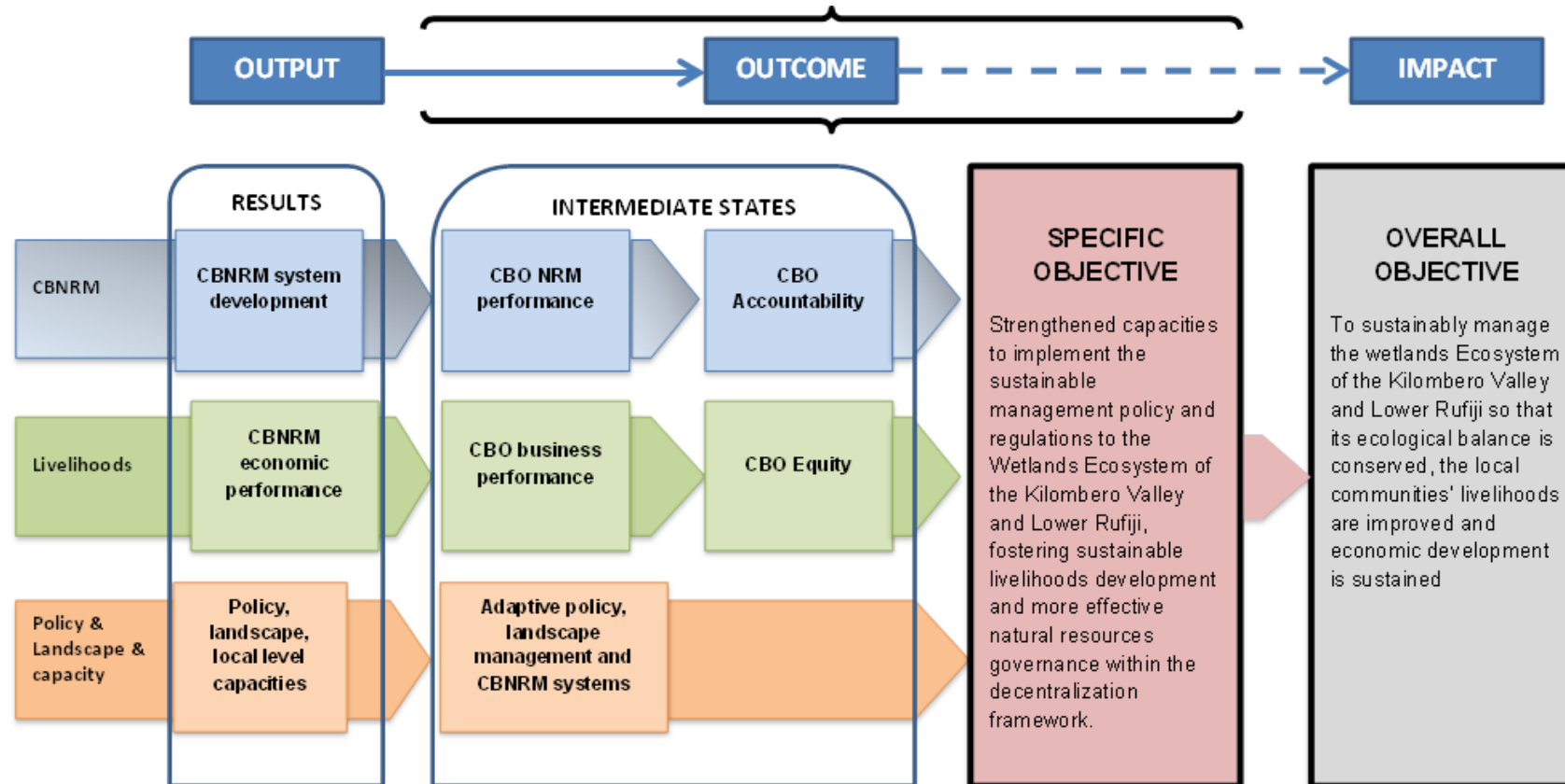
Specific Objective: Contribution to a change at level of society resulting from the achievement of a combination of project's outcomes and other outcomes, appears (mostly) after the end of an intervention.

Overall Objective: the overall domain of interest of the project in the sector of intervention. It captures the policy level goal or strategic framework.

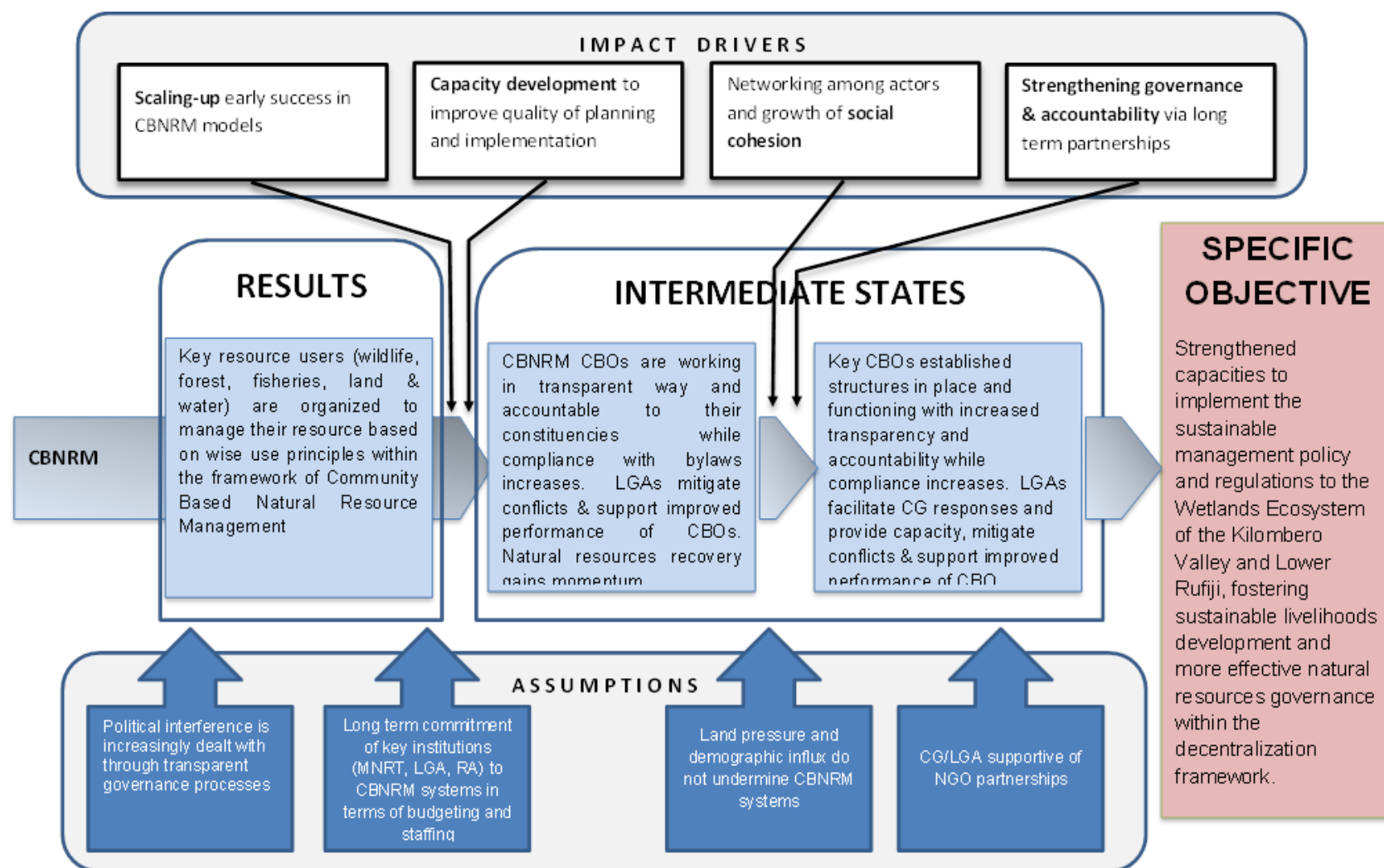
Assumptions. These are potential events or changes in the project environment that would affect the ability of a project outcome to lead to the intended impact, but that are largely beyond the power of the project to influence or address.

2.1 Monitoring matrix

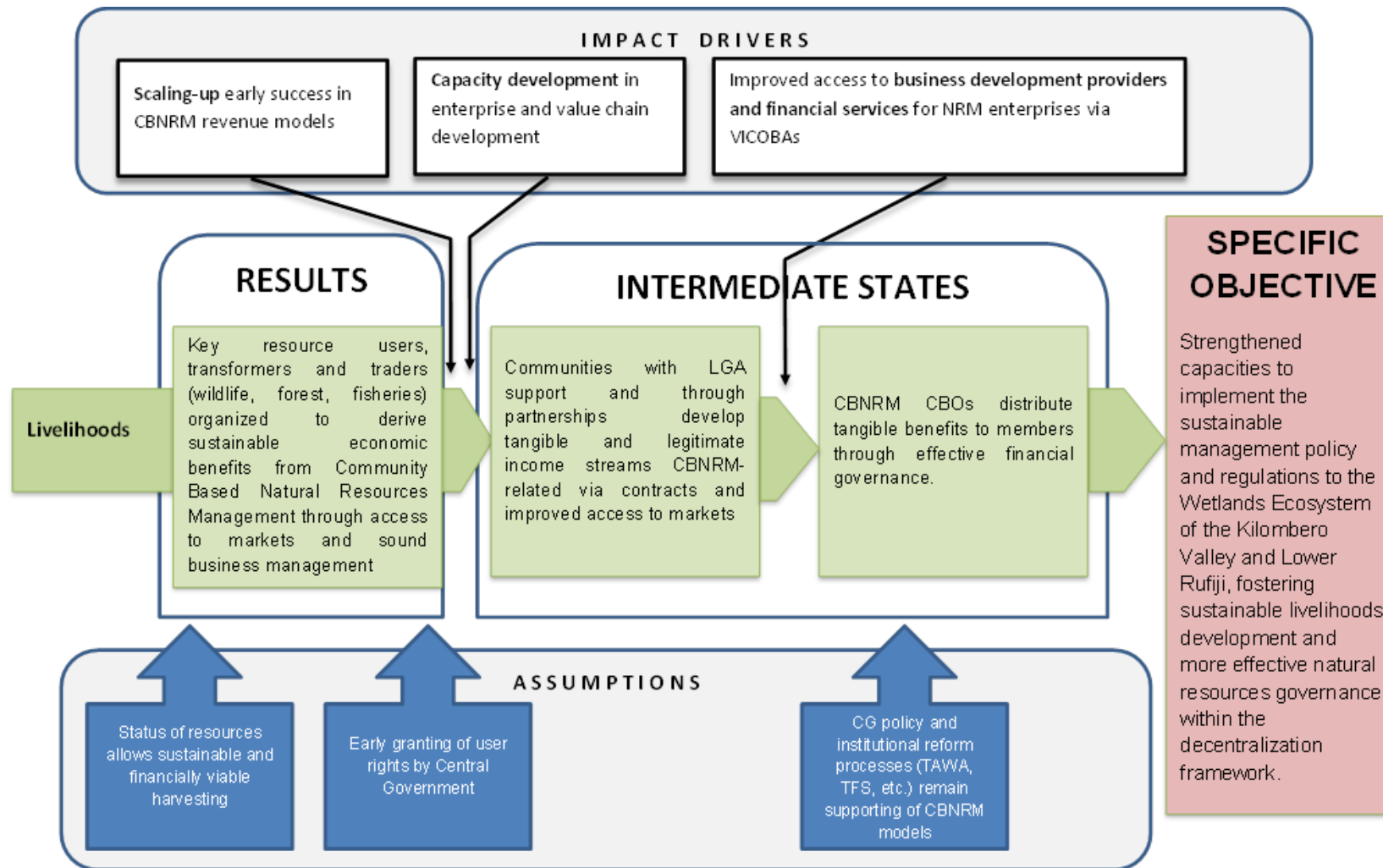
This report provides an updated monitoring dataset for result level indicators, which are mostly monitored semiannually. Intermediate States indicators are monitored annually.



2.1.1 Change pathway (1) – CBNRM



2.1.2 Change pathway (2) – CBNRM-related livelihoods



2.1.3 Result level – CBNRM (R1&2)

Results = Output = Sphere of control	Indicators	Project Targets	Baseline value	Achievement	Comments
Result 1: Key resource users (wildlife, forest, fisheries, land & water) are organized to manage their resource based on wise use principles within the framework of Community Based Natural Resource Management	1.1 # of WMAs planning processes supported along legal steps by year 4.	2	0	2	Both WMA s have tourism hunting business plans
	1.2 # of BMUs planning processes supported along legal steps by year 4.	8	0	7	Progress for Ngapemba MU was paused in 2017.
	1.3 # of CBFM planning processes supported along legal steps by year 4.	5 ²⁹	0	5	
	1.4 # of LUPs planning processes supported along legal steps by year 4.	31	0	33 UDC: 10 RDC: 13 KDC: 10	LUPs: achievement data is from 2016 for project supported VLUPs. Land regularisation taken over by MHLSSD/LTSP. VLUP Data not available
	1.5 # of CBOs / villages supported with gender balanced capacity building by year 4.	47	0	18	All CBNRM CBOs were involved in gender training
	1.6 # of partnerships and networking processes established by year 4 between CBNRM CBOs and NGOs/CSOs to strengthen governance and accountability of service delivery and social cohesion	TBD	0	3	Forestry PPP scheme Both WMAs are members of the CWMAC (former AAC) CBFM VNRCs linked to Mjumita
Result 2: Key resource users, transformers and traders (wildlife, forest, fisheries) organized to derive	2.1 # of WMA associations supported to develop business plans by year 4	2	0	2	

²⁹ This target has been changed from 6 to 5 during MTR due to persistent boundary conflicts in one VFR in RDC.

Results = Output = Sphere of control	Indicators	Project Targets	Baseline value	Achievement	Comments
sustainable economic benefits from Community Based Natural Resources Management through access to markets and sound business management	2.2 Better understanding of the fish resources, value chain and bottlenecks identified	8	0	Zumbe lake preliminary review delivered to stakeholders. Fisheries diagnostics in KVRs completed.	See main text.
	N of villages/CBFM areas supported to develop business plans by year 4 through sustainable timber harvesting, sustainable charcoal production	6	0	38 villages <u>Detail :</u> 2 WMAs (27 villages) 6 forestry PPP villages 5 CBFM villages	2 WMAs have business plan for Tourism hunting 6 villages are involved in the forestry PPP scheme for which a BP was assessed. 5 VNRCs have been assisted in developing timber sales plan.

2.1.4 Intermediate states – CBNRM (R1&2)

Intermediate states	Indicators	Baseline values ³⁰	Baseline at Project Level ³¹	Achievement	Comments
IS-1.1 Key CBOs established structures in place and functioning with increased transparency and accountability while compliance increases. LGAs facilitate CG responses and provide capacity, mitigate conflicts & support improved performance of CBO. Resource degradation slows and then recovers	N of WMA, CBFM, BMU, LUP gazetted and registered	1 WMA gazetted; 1 WMA in step 5; 1 WMA in step 3; 3 WMA in step 0	1 WMA in step 5; 1 WMA in step 3	2 WMA: step 6	
		24 BMU in step 6; 39 BMU in step 0	8 BMU in step 0	7 BMU: step 5 1 BMU: step 3 <u>DETAIL:</u> Mbuti: 5 Gundu: 5 Ngapemba: 3 Mikeregembe: 5 Abdalangwira: 5 Nyaminywiri: 5 Kipugira: 5 Kipo: 5	7 BMUs have completed the establishment process and are waiting for the official registration by MoLF Ngapemba BMU : progress was paused for inclusion in area conservation plan and also pilot adaptation of BMU standards, which was dropped from IMP plan for delayed approval (see main text below).
		7 CBFM in step 6; 9 CBFM in step 5; 9 CBFM in step 4; 8 CBFM in step 3; 7 CBFM in step 2; 9 CBFM in step 1; 6 CBFM in step 0	2 CBFM in step 5 4 CBFM in step 0	4 CBFM: step 6 1 CBFM: step 5 <u>Detail:</u> Mtanzamsona: 6 Uhanila: 5 Idunda: 6 Libenanga: 6 Kichangani: 6	FDB has not yet approved FMPs and granted hammer for 3 VFRs. 1 VFRs in RDC was dropped at MTR due to protracted village boundary conflicts.

³⁰This column shows the baseline values for PFM, WMA and BMUs referred to the universe of CBNRM in the Districts, over and above project target sites. For LUP, given the large number of villages, we only refer to the villages identified as target. NB: the project supported LUP only as part of other planning processes (e.g., WMA, PFM). The data was generated by a baseline inventory exercise.

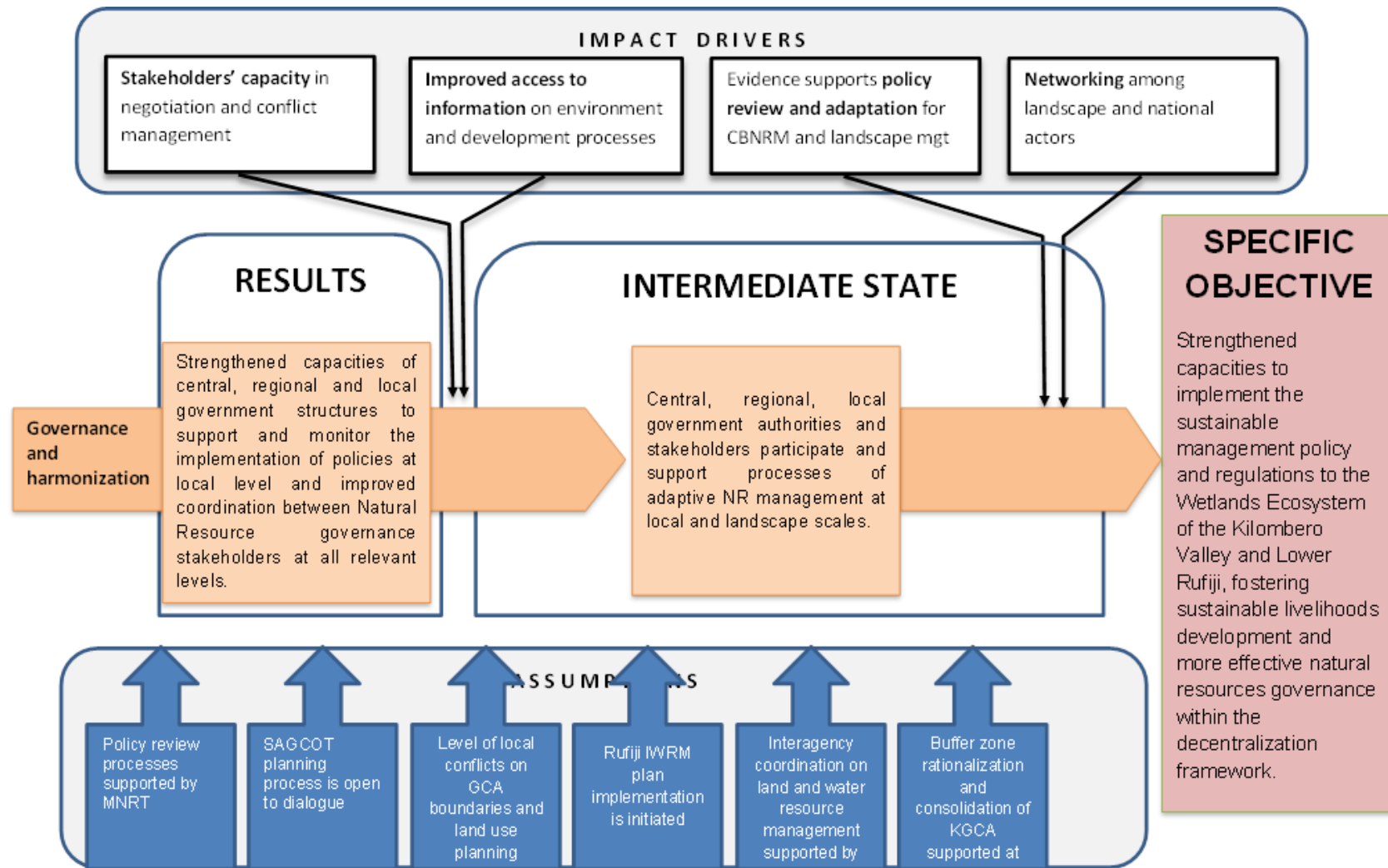
³¹ This column extrapolates the status of the project target sites from the District level universe.

Intermediate states	Indicators	Baseline values ³⁰	Baseline at Project Level ³¹	Achievement	Comments
		53 VLUPs in step 8 94 VLUPs at various stages below step 8	13 VLUPs in step 8	N/A	In the inception phase it was agreed that project support to LUP would be limited to what was required to establish WMAs and VFRs. 13 certificates of village land enabled by project as part of WMA Iluma establishment process. Later, the LUP sector was supported by the LTSP in pursuance of updated VLUPs across the 3 Districts of KVRs. KILORWEMP has not been given access to latest data.
	Effectiveness of established WMA, CBFM, BMU, LUPs.	n/a	37%	57%	Determined through project CGMETT survey across a sample of targeted CBOs (n=9)
IS-1.2 CBNRM CBOs are working in transparent way and accountable to their constituencies while compliance with bylaws increases. Gender balance in CBO governance improves. Networking among local actors (CBOs, villages) and between these and regional/national actors increases. LGAs mitigate conflicts & support improved performance of CBOs. Natural resources recovery gains momentum	Compliance with CBNRM bylaws (LUP, CBFM, WMA, BMU)	`	42%	53%	Determined through project CGMETT survey across a sample of targeted CBOs (n=9)
	Gender ratio in directory/ board of each CBO/Village committee supported		33% ³²	31%	

³² Average of gender ratio of the boards/directors across 27 CBOs targeted and sampled by the project. It is noted that this is already in compliance with requirements of PFM guidelines.

Intermediate states	Indicators	Baseline values ³⁰	Baseline at Project Level ³¹	Achievement	Comments
IS 2.1 Communities with LGA support and through partnerships develop tangible and legitimate income streams CBNRM-related via contracts and improved access to markets	Amount of revenues generated by CBO/CBNRM initiatives via business plans	0	0	133 M TzSh (52,000 Euro)	Revenues accruing to Iluma WMA (23 M TzSh) Mtanza Msona VFR (110 M TzSh)
	N of contracts entered into between CBOs and buyers and/or suppliers of inputs and/or financial services / capital.	0	0	2	Mtanza Msona signed 2 contracts with timber buyers in 2016. Iluma WMA is negotiating a contract with a sport fishing investor.
IS 2.2 CBNRM CBOs distribute tangible benefits to members through effective financial governance.	Percentage of revenues shared with members and/or invested in CBO related enterprises and/or services	0	0	20-32% cash share with member villages	Iluma WMA has shared 32% of its revenues with 15 member villages Mtanzamsona VNRC has shared 40% of its Revenue to Village member and 20% to its respective LGA

2.1.5 Change pathway (3) – Policy, Landscape and Capacity



2.1.6 Result level – Policy, Landscape and Capacity (R3)

Results = Output = Sphere of control	Indicators	Project Targets	Baseline value	Achievement	Comments
Result 3: Strengthened capacities of central, regional and local government structures to support and monitor the implementation of policies at local level and improved coordination between Natural Resource governance stakeholders at all relevant levels.	3.1 # of policy review and adaptation processes supported by analysis and evidence generated by the project in relevant domains (wetlands, game controlled area management, buffer zone management, etc.) by year 4	2	0	2	Wetland regulations: project supported harmonization between MNRT and VPO. Not yet gazetted. Corridor regulations is supported by USAID PROTECT towards which KILORWEMP has extended TA inputs. Regulations were gazetted in 2018. GCA regulations process has stalled and status is unclear.
	3.2. Integrated Management Plan for Kilombero Valley formulated as a coordination framework	1	0	<ul style="list-style-type: none"> IMP Foundation Plan with Financial sustainability appraisals and options; and spatial framework and priority action plan 	
	3.4 Information and analysis for wildlife management and ecology generated and feeding planning processes.	NA	<ul style="list-style-type: none"> TAWRI ecosystem census Wildlife connectivity status study 	<ul style="list-style-type: none"> Land Use Diagnostic Study KGCA consolidation Options Study Buffer zone reconnaissance Study Puku Action Plan Fisheries Diagnostic Study Ngapemba Reconnaissance and Conservation Appraisal Studies Vulnerable wetlands Appraisal Study Ruipa East Wildlife Corridor Plan 	

Results = Output = Sphere of control	Indicators	Project Targets	Baseline value	Achievement	Comments
	3.5 Land use planning guidelines for mitigating land use conflicts around the KGCA and to pursue landscape connectivity produced	NA	Nihil	<ul style="list-style-type: none"> Review of DLUPFs submitted to MLHHS. Land Use Diagnostic Study LUCL mapping with SWOS. KGCA consolidation Option Study KGCA Consolidation Legal Review Buffer zone reconnaissance Survey Report Ngapemba Reconnaissance and Conservation Appraisal Report Vulnerable wetlands Appraisal Study Ruipa East Wildlife Corridor Plan IMP Spatial Framework and database Inter-Ministerial Framework MNRT-MLHHS Livestock Sector Investment Appraisal 	<ul style="list-style-type: none"> All submitted to MNRT and stakeholder workshops.
	3.6 Stakeholder coordination platforms and processes at landscape level initiated	1	0	<ul style="list-style-type: none"> 4 Workshops on KGCA consolidation and KVRs Management 1 workshop on RAM; 7 workshops on IMP process DNRABs regular semi-annual meetings including joint UDC-KDC DNRAB 	
	3.7 Increased participation and two-ways consultations (top-down/bottom-up) of local residents in wetland related planning processes	NA	Nihil	<ul style="list-style-type: none"> DNRABs regular semi-annual meetings including joint UDC- 	

Results = Output = Sphere of control	Indicators	Project Targets	Baseline value	Achievement	Comments
	and CBNRM via local governance systems by year 4			KDC DNAB – t deal with land encroachment on WMAs <ul style="list-style-type: none"> Ngapemba conservation plan feedback workshop 	
	3.8 Increased awareness of local residents of wetland values and ecosystem services by year 4	NA	Nihil	Large number of events organised among local officials and office bearers	Project concerted CEPA plan on KQRS hindered by meandering R3 implementation
	3.9 Increased technical capacity of LGAs, WD and regional administration to support landscape and local level NRM processes by year 4	NA	Nihil	<p>SOFT INPUTS:</p> <ul style="list-style-type: none"> Mentoring of TAWA staff on land reconnaissance survey technique CBFM Harvesting Plan methodology (national review of standards; pilot KVTC trial; SUA method application) WMA Tourism Hunting Business Plans Fisheries ecology review TA to RDC and KQRS LGAs Extensive review, mentoring and support to MNRT and LGA staff via TA inputs across all project components and on project monitoring Livestock investment plan <p>HARD INPUTS</p> <ul style="list-style-type: none"> 2 WMA Offices 1 UDC DGO office 2 TAWA Ranger Posts VGS equipment for all CBNRM CBOs 	

Results = Output = Sphere of control	Indicators	Project Targets	Baseline value	Achievement	Comments
				<ul style="list-style-type: none"> IT equipment for UDC Land Office Aerial Survey equipment for TAWA 2 patrol boats for TAWA and LGAs 	
	3.10 Project M&E system operationalized and supporting project review, adaptation and institutional learning.	NA	Nihil	<ul style="list-style-type: none"> Annual and semi-annual results reports Annual survey of CBNRM effectiveness Annual reflective practice via DFT and project wide workshops 	

2.1.7 Intermediate states – Policy, Landscape and Capacity (R3)

Intermediate states	Indicators ³³	Baseline values	Achievements
IS 3.1 Central, regional, local government authorities and stakeholders participate and support processes of adaptive NR management at local and landscape scales.	KVRS is maintained as a Ramsar site and a framework for wise use and coordination is established with the IMP	<ul style="list-style-type: none"> Draft outdated IMP not endorsed nor implemented, CBNRM focussed and demand driven (wish list); no institutional mechanism for coordination foreseen beyond activity plan. 	<ul style="list-style-type: none"> MLHSD has selected KVRS has target for its flagship land regularization initiative. MNRT and MLHSD have signed a coordination framework.
	CBNRM plans and systems are monitored, adapted, and financed by LGA, MNRT, PMO-RALG.	<ul style="list-style-type: none"> PFM administrative monitoring system reasonably in place LGAs not allocating resources to CBNRM monitoring. SWMP produced guidelines to embed CBNRM support and monitoring in sector procedures 	<ul style="list-style-type: none"> SWMP guidelines remain non-implemented as GoT channels own resources sectorially and CBNRM remains donor dependent. Ad-hoc support from LGAs to WMAs was observed occasionally. DNRABs established in all LGAs and UDC-KDC working jointly: they have shown evidence of reaction to conflicts and encroachment in CBNRM areas. Land administration and NRM administration mostly disjointed with poor harmonization of land use plans (VLUPs and DLUPFs) to consider environmental vulnerabilities and landscape dimension
	KGCA is maintained as a protected area reflecting the principle of wise use.	<ul style="list-style-type: none"> WD established Ramsar Unit (1 staff) in 2013 with dual role in KGCA and Ramsar site. KGCA management is not guided by a management plan but through annual budget plan of MNRT and ad-hoc management. A few rationales for the consolidation proposed between 2011-2012 KGCA consolidation attempted by MNRT and LGAs in 2012 with operation Save Kilombero, based on indicative study of TAWIRI. Lack of clarity on boundary and tenure and permissible use of so called Buffer 	<ul style="list-style-type: none"> Database of village land tenure produced with MHLSSD collaboration Legal review produced by KILORWEMP KGCA consolidation option study reviewed by MNRT and stakeholders. PM directed to mark the boundary of this and all other PAs affected by boundary disputes. MNRT pursuing ongoing consolidation. Information basis used includes: Information resulting from Land Use Diagnostic Study, LUCL mapping with SWOS, KGCA consolidation Option Study, KGCA Consolidation Legal Review, and Buffer zone reconnaissance Survey Report Challenges in operational coordination with MHLSSD/LTSP. KGCA TAWA staff are 20 and are better resourced

³³ Reflect revisions approved by JLPC-7 and JLPC-11.

Intermediate states	Indicators ³³	Baseline values	Achievements
		<p>Zone. Court case brought against MNRT for the consolidation action.</p> <ul style="list-style-type: none"> • Extent of land use conversion not known • Village boundaries uncertain 	<ul style="list-style-type: none"> • Consolidation funded by TAWA and partially LTSP resources • Ministerial Advisory Committee established to review status of KGCA/KVRS and advice the MNRT Minister on the best way to manage the valley.
	Stakeholders' views taken into account in decisions on landscape resources	<ul style="list-style-type: none"> • Operations Save Kilombero carried out with security forces and forced evictions of livestock keepers from core area (proposed KGCA) • Impromptu instructions concerning farming in core area 	<ul style="list-style-type: none"> • Precedent established for stakeholder consultation platforms across KVRS via several consultative events convened by project • Vision for permanent options for landscape coordination produced via IMP Foundation. • Ongoing TAWA led consolidation progressing with a more structured and participatory approach than in 2012 • Ministerial appointed Committee is leading catchment conservation plans with focus on Rufiji's Hydropower Project at Stiegler's Gorge
	Stakeholders access to information and knowledge on the wetland and development processes	<ul style="list-style-type: none"> • No established platforms or system/process for sharing information beyond regular LGA and GoT functions. 	<ul style="list-style-type: none"> • Project generated information has been shared mostly via workshops with LGA officials, office bearers and CBO reps, MLHSD. • TAWA has prepared submission to Ministerial Committee for Kilombero Valley using project generated analysis.
	Stakeholder networking increased at local and landscape levels	<ul style="list-style-type: none"> • Networking among stakeholders (CBOs, CSOs, private businesses) is fairly limited and mostly to LGA functions 	<ul style="list-style-type: none"> • DNRABs active in all target districts and have proven reactive to land encroachment issues • Large conservation NGOs (AWF, STEP; TFCG) active in the landscape on connectivity issues • PPP scheme appraised and receiving local support • Action plan for connectivity and preservation of vulnerable wetland sites produced and appraised.

2.1.1 Impact Drivers

Impact driver	Achievement	Evidence
ER1/ER2: CBNRM Establishment & Livelihoods		
Scaling-up early success in CBNRM models	MODERATE	<ul style="list-style-type: none"> All VFRs and WMA establishment targets were achieved. CBNRM establishment has taken very long due to a mix of LGA speed and central agencies reactions. The scale-up strategy was abandoned in MTR in favor of a proof of concept strategy. The first VFR has sold its first timber. The other 4 VFRs have sustainable harvesting plans and tools for supporting timber sales expected in the dry season 2018. Likewise three CBFM sites have started realizing monetary benefits through fines and confiscation of forest products. The 2014 ban of local hunting has undermined the expected near-term revenue source for WMAs. Iluma has received its first flow of revenue via fines and GoT revenue sharing. Both WMAs are pursuing tenders for hunting concessions. Iluma has received a proposal for a sport fishing enterprise and is in negotiations. The establishment of BMUs has been problematic due to heavy bureaucratic procedures and high transaction costs. This domain is rated as partially achieved in terms relative to the average speed of similar processes in Tanzania.
Capacity development to improve quality of planning and implementation- & in enterprise and value chain development	SATISFACTORY	<ul style="list-style-type: none"> Within the given framework for CBNRM, the project has developed system capacity in selected domains: WMA business planning; forestry inventory and harvesting plans; CBNRM bylaws; CBNRM effectiveness monitoring; CBFM governance and accountability; PPP scheme model. Less satisfactory progress achieved with certain BMU targets: in RDC early establishment process rejected by community, had to be revised; in KQRS delay in IMP workplan approval led to dropping of adaptation of technical standards for BMUs and pursuing of Ngapemba BMU establishment. Other BMUs have completed establishment process but formal registration is still outstanding. LGA officials have received training in value chain approaches and have been associated with action learning on business planning. The perception is still widespread that LGAs need to drive NRM business and value chain promotion. This mindset transition will take some time.
Networking among actors and growth of social cohesion	SATISFACTORY	<ul style="list-style-type: none"> The two WMAs are members of the national association CWMAC which assisted them to launch a tender for tourism hunting. They have also been connected to other more established WMAs in the country via study tours and joint training opportunities.

Impact driver	Achievement	Evidence
		<ul style="list-style-type: none"> The five VFRs (VNRCs) have been connected to the national CBFM Association (Mjumita) and the Mtanza Msona VNRC is a full member. VNRCs have been also taken to the most advanced CBFM experience in the country (Kilwa) which has galvanized their support to the model. BMUs reps have been exposed via study tours to fisheries management in Tanza and Lake Victoria. The DNRAB have met regularly to support WMA establishment and control land encroachment. The DNRAB in Kilombero Valley has also proven inter district coordination feasible and doable.
Strengthening governance & accountability via long term partnerships	MODERATE	<ul style="list-style-type: none"> WMA and CBFM VNRCs linked to respective sector associations CBFM VNRCs and LGAS involved in public accountability capacity building PPP scheme for forest enterprise appraised; not kickstarted due to policy level factors.
ER3: Policy, landscape capacity and harmonization		
Stakeholder capacity in negotiation and conflict management	SATISFACTORY	<ul style="list-style-type: none"> Landscape harmonization review processes supported (stakeholder workshops) and fed with integrated landscape analysis and option analysis (KGCA consolidation, Ngapemba conservation, overall IMP Foundation) Specific land conflict analysis outputs produced (KGCA consolidation, safeguards of vulnerable wetlands) and disseminated Inter-sector planning results modest during project lifetime Ministerial Advisory Committee supporting inter agency coordination
Improved access to information on environment and development processes	VERY SATISFACTORY	<ul style="list-style-type: none"> Solid improvement of information basis for environmental management decisions across key domains: land use and cover change; vulnerable sites; wildlife presence ad trends; wildlife connectivity; socioeconomic dynamics of livestock and fisheries sector; fisheries management; institutional options for landscape management; KGCA consolidation options; land use in buffer zones;
Evidence supports policy review and adaptation for CBNRM and landscape mgt	MODERATE	<ul style="list-style-type: none"> Slow progress both in CBNRM and IMP preparation have hindered possibility of formal policy review actions within the project timeframe; however, evidence presented may trigger this later. Project has spent considerable effort in documenting lessons and evidence and in sharing it through consultative events with broad participation. Incentives required for forestry PPP scheme submitted to FDB Initial analysis about KGCA consolidation options and legal framework fed to MNRT consolidation actions. Legal analysis proved complex to conclude. Spatial information used. Landscape analysis submitted by TAWA to Ministerial Advisory Committee for KV.

Impact driver	Achievement	Evidence
Networking among landscape and national actors	MODERATE	<ul style="list-style-type: none"> • The Landscape activities have supported extensive consultations during the early assessment phase and during the later IMP Foundation process. The assessments carried out in 2016-2018 have improved the information base and the analysis of land and resource access conflicts across the landscape. Information generated by the project has been extensively disseminated via workshops. These processes have not yet generated a permanent mechanism of coordination, whose feasibility has been appraised in the IMP Foundation. The IMP Foundation includes both a design for overall landscape coordination and for coordination of zonal activities (e.g., safeguard of vulnerable wetland sites, wildlife connectivity). The proposals have achieved a good degree of support in the consultations undertaken. • Patchy and overall very weak implementation of inter-Ministerial coordination framework. • Unstable implementation drive in second half has hindered the execution of a more structured and effective landscape networking and public awareness plan

2.1.2 Specific Objective

Strengthened capacities to implement the sustainable management policy and regulations to the Wetlands Ecosystem of the Kilombero Valley and Lower Rufiji, fostering sustainable livelihoods development and more effective natural resources governance within the decentralization framework.

Indicators	Baseline	Achievement	Comments
% of key areas of wetland landscape under environmental management systems (WMA, LUP, CBFM, BMU, GCA, IMP)	0	WMAs: 100,550 Ha; CBFM: 33,806 Ha Total: 134,356 Ha	BMU: surface determination is not relevant KGCA: not yet re-established. LUPs: land regularisation taken over by MHLSSD/LTSP. VLUP Data not available
# of communities (villages and fishing camps) participating in GoT or LGA NRM processes (WMA, LUP, CBFM, BMU, GCA management processes, IMP implementation)	N/a	WMAs: 29 villages; CBFM: 8 villages; BMUs: 8 camps in 5 villages Nascent IMP sub-components : 4 villages in Ngapemba area ; 12 villages in Ruipa East corridor KGCA consolidation: MNRT has reached about 16 villages	Overall IMP process : it involves institutions and not villages.
# of (villages and fishing camps) participating in GoT or LGA NRM processes (CBNRM, GCA management processes, IMP implementation) rating service provision as satisfactory or improving	79%	44%	Based on a sample of CBNRM sites. Baseline established in 2015 at the peak of establishment processes. Significant drop attributed to delays in completing establishment processes and granting user rights.
3 Districts budget allocation for the NRM processes increased via government transfer and/or local revenues	Na	OSR budget allocations and expenditure to natural resources are far below the percentage of own-source revenue generated from the sector; the same applies for livestock; local revenue from crops in particular,	Detailed financial analysis carried out as part of the IMP Foundation process confirms lack of progress in this indicator.

		<p>but also from natural resources is subsidizing other sectors and operations of the Councils;</p> <p>Budget allocations and expenditure from Inter-Governmental Transfers give the highest priority to social sectors (education, health and water) and roads;</p> <p>The percentage of staff position filled in natural resources and production are well below the average of the LGAs;</p> <p>There is increasingly less discretion of LGAs in allocation of own-source revenue and development budget, but some fiscal space and discretion is maintained in OSR</p>	
LGA, RA NRM and WD use project generated outputs, systems and processes to effectively supervise all CBNRM and other landscape/policy processes by project end	N/A	<p>TAWA is using project's land use analysis to pursue the KGCA consolidation</p> <p>WMAs are pursuing business ventures and site management according to bylaws and management plans.</p> <p>FDB has endorsed xx FMs for VFR, one of these has already been implemented (Mtazna Msona) and 4 more will do so during the dry season.</p> <p>Timber sale and public accountability mechanisms conferred to target VNRCs and DFOs.</p> <p>KVTC is fund raising for PPP scheme appraised by project.</p>	

2.1.1 Overall Objective.

To sustainably manage the wetlands Ecosystem of the Kilombero Valley and Lower Rufiji so that its ecological balance is conserved, the local communities' livelihoods are improved and economic development is sustained

Indicators	2013 - Baseline Status ³⁴	2018 - Present Status
Protection and conservation status of key wetland sites in the Kilombero and Lower Rufiji improved (Objective 1 of SWMP)	<ul style="list-style-type: none"> Kilombero Valley is overrun by farming and livestock grazing. Wildlife has almost entirely disappeared. Habitat conversion has peaked in the valley bottom and is progressing in the terraces and hills. Wildlife movement across the valley has virtually ceased. The re-establishment of the KGCA and the IMP of the KQRS have been attempted but at unfinished and without a clear sense of direction and vision. Stable mechanisms of concertation and collaboration are not in place. The draft IMP includes a menu of demand-driven actions mostly in support of CBNRM without a spatial dimension and link to the KGCA re-establishment issue. Operation Save Kilombero launched in 2012. An attempt at the demarcation of the core area. Eviction of pastoralists and 500k heads of cattle. Confrontation, conflicts, and loss of lives. Land pressure shifted to uplands. There is high confusion on the status of the KGCA and moreover of a buffer zone informally established in 2012. Village land use plans are of weak standards and are poorly enforced. 	<ul style="list-style-type: none"> CBNRM Units (WMAs, VFRs) have been formally established in ecologically vulnerable areas and over 1,300 km² A vision for the spatial management of the KQRS has been produced, involving a core area (KGCA) and a wetland landscape over village land (KQRS). MNRT and LGAs are negotiating the boundary of the KGCA with a structured process, expected to deliver a re-established KGCA within about a year. Landscape conservation priorities are well identified and documented in the IMP Spatial Framework. The IMP Foundation includes Action Plans to protect vulnerable sites and re-establish wildlife connectivity. MLHSD and LGAs have prepared District Land Use Framework Plans and are pursuing land regularization across the landscape. Coordination with this effort to integrated wetland management safeguards has produced very limited results. A vision for intersectoral coordination is available through the IMP and options for its institutional mechanisms and sustainability identified. A set of area-specific conservation goals is presented through the IMP.

³⁴ This 2013 profile is based on the project's initial assessments: Baseline Study (2013); MNRT Landscape TF inaugural meeting (2013); Baseline status of CBNRM in the target Districts (2013).

Indicators	2013 - Baseline Status ³⁴	2018 - Present Status
Models of improved utilization of wetland resources implemented with positive impact on livelihoods of resources users (Objective 2 of SWMP)	<ul style="list-style-type: none"> Conservation of KQRS is mainly visualized by responsible agencies as to counter livestock grazing. CBNRM models were established in the Districts. WMAs are still in planning stages. Several VFRs have been established for conservation purpose. No CBNRM unit delivers economic benefits. LGAs perceive that there is weak effectiveness of planning. Poor accountability and weak capacity for service delivery. The sustainability of LGA's NRM services is questioned. CBNRM systems are perceived as top-down and GoT driven. Despite this, a vision on how to prioritize CBNRM establishment does not exist. 	<ul style="list-style-type: none"> Pilot VFRs have started generating revenues or will do so in the next dry season. WMAs have started generating modest revenues and are at their defining moment, attempting to establish a business while withstanding unrelenting habitat loss pressure. Few pilot BMUs are reestablished with mixed results and overall providing a management model. The support model needs to be rethought. CBNRM remains mostly a donor-supported endeavor. LGAs do not allocate funds to the NRM sector. Limited revenues from this sector subsidize general LGA functions. A Forestry PPP has been appraised and has met consensus and local support. It has stalled due to an unfavorable tax regime which awaits review. The PPP is part of a larger forestry scheme with implications for habitat preservation in a critical area of the landscape. Pilot schemes of catchment management are established in the Mngeta sub-catchment by NGOs in collaboration with the KPL farm-.
Management capacity of key wetland areas of Kilombero and Lower Rufiji improved within the DeNRM framework (Objective 3 of SWMP)	<ul style="list-style-type: none"> Wetland management guidelines (DeNRM inspired) are produced by the SWM project in its final phase. Targets Districts are not involved in SWM project trials but had been supported by previous BTC project. WD has one staff assigned to KQRS. The major issue of policy attention is the promotion of large-scale agriculture investments in the landscape, under the umbrella of BRN and SAGCOT. 	<ul style="list-style-type: none"> DeNRM is not a policy priority. Policy support to a concerted wetland management framework has waned. Kilombero Valley is no longer a priority site for SAGCOT. The feasibility of large-scale irrigation schemes has been completed indicating a much lower surface where rice irrigation would be feasible (from 40,000 initially proposed to 3,000 ha). Small-scale irrigation and rice farming continue to grow haphazardly.

Indicators	2013 - Baseline Status ³⁴	2018 - Present Status
		<ul style="list-style-type: none"> • TAWA has strengthened own resources dedicated to KVRs (staff and ranger posts) • Policy priority is improved law enforcement, resolution of land conflicts, securing central government control on key areas and especially the core zone; enabling large infrastructure and energy project. The attention of GoT is on the Rufiji (Stiegler's Gorge) Hydropower Project. MNRT has established a Ministerial Advisory Committee to move forward catchment plans. • The IWRMP for the Rufiji Basin has been finalized and awaits implementation. Connection between this and landscape management is not there, yet.
Wetland resource monitoring improved in the Kilombero and lower Rufiji wetland areas (Objective 4 of SWMP)	<ul style="list-style-type: none"> • Available environmental status information includes a profile compiled from literature in 2009 for the previous BTC project; a wildlife corridor review paper; biannual TAWIRI wildlife census reports. • There is no clear and updated information on land use and land cover; wetland habitats; hydrology; economic dynamics driving habitat change and wetland loss. There is no permanent environmental monitoring system. 	<ul style="list-style-type: none"> • Available analysis produced by KILORWEMP includes land use and change over time, across the landscape and in detail across the core zone; fisheries; wetland habitats and vulnerable sites description; status of puku and wildlife trends; socioeconomic dynamics in the fisheries and livestock sector; land tenure; wildlife connectivity. • USAID has delivered an Environmental Flow Assessment with a description of selected aquatic habitat values. • GlobE has produced an assessment of land use change factors in the agriculture sector; and hydrological change. • There is no permanent environmental monitoring system • There is no central repository of environmental information nor body deputed to handle that. • Information sharing on land tenure and land use planning remains difficult.
Communication, Education and Public Awareness (CEPA) on wetlands	<ul style="list-style-type: none"> • Ad-hoc and scattered initiatives to raise awareness. However, no adequate information basis to support them. 	<ul style="list-style-type: none"> • There is a better information base that can be organized and can enable meaningful information on ecosystems services and conservation values.

Indicators	2013 - Baseline Status ³⁴	2018 - Present Status
enhanced by outcomes of project (Objective 5 of SWMP)		<ul style="list-style-type: none"> • Extensive consultative events have disseminated project's findings. • A regular system of public information is still lacking.
Improved coordination of wetland policy (Objective 6 of SWMP)	<ul style="list-style-type: none"> • A draft Wetland Policy has not been approved by Cabinet. Policy lead role is shared between WD and VPO. NAWESCO as apex coordination body has lost momentum. SWM project is in the final phase. 	<ul style="list-style-type: none"> • The Wetland Policy is no longer foreseen. VPO has assumed a policy level lead for wetland. • Inter-sector coordination is weak and ad hoc. It can improve via mechanisms for land conflict resolution, PA management and catchment management more than for a wetland framework per se. • The IMP Foundation Plan proposal and the ongoing Ministerial Advisory Committee for Kilombero Valley provide foundations.

2.1.2 Assessment of assumptions.

2.1.2.1 Assumptions pathway 1&2 (CBNRM)

Assumptions	Assessment	Evidence
Political interference in local level resource access and management is increasingly dealt with through transparent governance processes	PARTIALLY REALIZED	<ul style="list-style-type: none"> • DNRABs have dealt with land encroachment problems of WMAs • Large scale agriculture investments as drives of top-down decision making have lost momentum; environmental and social safeguards were put in place. • Basin hydropower development has taken over GoT priorities • MHLSSD has priorities KVRs for land regularisation. • Coordination with land tenure regularization process difficult • Land access remains focus of local political arena • Compliance with land laws was very weak and it is too early to say whether ongoing land regularization process will improve this • PM launched enquiry on forest harvesting in RDC
Long term commitment of key institutions (MNRT, LGA, RA) to supporting CBNRM systems in terms of budgeting and staffing	PARTIALLY REALIZED	<ul style="list-style-type: none"> • WD has retained CBC Unit. TAWA has a CBC Unit. FDB has PFM section • CBNRM at central GoT level has lower priority versus strengthening wildlife and forestry parastatals overseeing reserves • LGAs NRM sector remains understaffed and LGAs do not allocate budgets to support CBNRM capacities
Land pressure and demographic influx do not undermine CBNRM systems	NOT REALIZED	<ul style="list-style-type: none"> • Infrastructure and agriculture development increase attraction to area • KGCA consolidation / evictions of pastoralists have shifted pressure to higher elevation zones and CBNRM sites
CG/LGA supportive of NGO partnerships	REALIZED	<ul style="list-style-type: none"> • MNRT and LGAs have supported role of NGOs for CBFM and WMA capacity building
Status of resources allows sustainable and financially viable harvesting	PARTIALLY REALIZED	<ul style="list-style-type: none"> • Forest inventories of 5 VFRs show good stock, however illegal use widespread • WMAs wildlife populations and habitats under encroachment pressure
Early granting of user rights by CG	NOT REALIZED	<ul style="list-style-type: none"> • WMAs and VFRs user rights took years due to the combined effect of slow LGA actions and delayed reaction from GoT agencies.

CG policy and institutional reform processes (TAWA, TFS, etc.) remain supportive of CBNRM models	PARTIALLY REALIZED	<ul style="list-style-type: none"> Parastatals and FDB retain units to support CBNRM Although formal regulatory and policy frameworks with regard to CBNRM have not changed, CBNRM has lost profile and parastatals' plans do not include explicit CBNRM budgets. Parastatals have mandate to maximise own revenues: this counter drive towards devolution/CBNRM. Expected reforms to streamline and increase incentives for WMA and CBFM not yet realised Forestry PPP scheme stalled due to lack of conducive royalties' regime
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2.1.2.2 Assumptions: Change pathway (3) – Policy, Landscape and Capacity

Assumptions	Assessment	Evidence
Key GoT line agencies (esp. MNRT, Agriculture, MHLSSD, VPO), RAS and LGAs participate in the IMP preparation process.	PARTIALLY REALIZED	<ul style="list-style-type: none"> Large delay in enabling IMP preparation has compressed process; however, this involved eight consultative workshops MNRT/TAWA is focussed on KGCA consolidation as higher priority in the landscape VPO not present in IMP workshops but was consulted on background analysis Ministerial Committee has been appointed to advice on Basin and KQRS decisions to be taken based on the information available (including those produced by the project).
KQRS/KGCA conservation goals are pursued in an adaptive, participatory and non-rigid manner and mainstreamed in land sector plans	PARTIALLY REALIZED	<ul style="list-style-type: none"> IMP foundation process saw participation and feedback from large cross section of stakeholders Project produced foundation analysis for KGCA consolidation but later expectations on approach diverged and KGCA consolidation was dropped from project's agenda MHLSSD/LTSP has started supporting KGCA consolidation via MNRT; overall coordination waned.
MHLSSD through the Land Regularization Project takes into consideration analysis and recommendations produced by KILORWEMP with regard to environmental safeguards in the Districts' plans and KGCA consolidation.	NOT REALIZED	<ul style="list-style-type: none"> Coordinated implementation of Inter-Ministerial Framework MNRT-MLHSD lapsed for most of its elements Project's feedback to DLUPFs and VLUPS under LTSP was largely ineffective; land data sharing was effective during early staged but later lapsed

Assumptions	Assessment	Evidence
Overall political support is maintained towards the conservation and wetland values of KVRS.	REALIZED	<ul style="list-style-type: none"> In all project supported fora central and local political leaders have voiced overall support to conservation of wetland system and specific elements (e.g., Ngapemba area) Farming access to core valley raised in parliamentary sessions repeatedly GoT invited Ramsar Advisory mission, signalling tangibly the intention of maintaining the area as a designated international wetland. Minister NRT reaffirmed to JLPC-8 need to ensure that wetland ecosystem is protected. MNRT leadership repeatedly expressed and acted towards the consolidation of the KGCA and maintaining the KVRS. The conservation of the valley has been more recently framed as part of the enabling context for the construction of the Rufiji Stieglers' Gorge Dam downstream. Stakeholders' workshop convened in October 2016 by project and attended also by local MPs clearly expressed support to the conservation of the valley. New Minister of NRT in January 2018 reaffirmed GoT concern for the conservation of the valley and announced the establishment of a Advisory Committee for the Valley.
Policy review processes supported by MNRT	PARTIALLY REALIZED	<ul style="list-style-type: none"> MNRT supported early consultations to harmonise wetland regulations with VPO. MNRT supported preparation of corridor regulations New WMA regulations and GCA regulations delayed
Rufiji IWRM plan implementation is initiated	NOT REALIZED	<ul style="list-style-type: none"> Plan not yet implemented. Capacity building to RBO remains bottleneck and key focus.
Land Tenure Regularization project of Ministry of Land is executed through effective coordination with KIORWEMP with regard to land use planning within KVRS, enabling mainstreaming of KVRS IMP supported by KILORWEMP	NOT REALIZED	<ul style="list-style-type: none"> As above.
Level of local conflicts on GCA boundaries and land use planning manageable	UNCERTAIN	<ul style="list-style-type: none"> KGCA consolidation ongoing. Dropped from project's framework after preparatory analysis and consultations. Land use planning domain falls under LTSP agenda (see above)
MNRT in synergy with other relevant GoT agencies and LGAs confirms and pursues	UNCERTAIN	<ul style="list-style-type: none"> KGCA consolidation ongoing. Dropped from project's framework after preparatory analysis and consultations.

Assumptions	Assessment	Evidence
the preferred tenure and management options for the KGCA and KVRs.		<ul style="list-style-type: none"> IMP foundation delivered with consultations Advice on Basin's decisions taken over by the Ministerial Committee. Minister to take decisions.
MHLSSD and LGAs collaborate and participate in the elaboration of guidelines for wetland and habitat protection and mainstream them in VLUPs.	PARTIALLY REALIZED	<ul style="list-style-type: none"> LGAs participated in early landscape analysis, KGCA consolidation consultations, IMP Foundation preparation and system specific consultations and appraisals Coordination with land sector mostly ineffective (see above)
MHLSSD supports its land tenure regularization program in the Districts with proactive engagement of and coordination with MNRT/ KILORWEMP	NOT REALIZED	<ul style="list-style-type: none"> Implementation of Inter-Ministerial Coordination Framework lapsed

2.1.2.1 Assumptions: Specific Objective

Assumptions	Assessment of future likelihood ³⁵	Trends
Political support to NRM sector increases	MEDIUM	<ul style="list-style-type: none"> formally stable policy framework relevant to the intervention and sector of interest in terms of policy goals strongly diminishing momentum towards devolution growing drive towards centralisation of sector and upward accountability Hydropower project might drive more attention to catchment conservation
Agriculture investments and basin development plans respect environmental sensitivities	MIXED	<ul style="list-style-type: none"> Safeguards have been put in place for SAGCOT investments and irrigation designs The main question refers to the extent to which further agriculture development will be pursued in an organised manner unlike the anarchic process so far Hydropower development plan has heightened GoT attention to basin management. It is unclear to what extent this will drive mostly sectorial measures (i.e., protected area management under state control) or more integrative and inclusive cross sector basin development plans IMP provides a framework for landscape management with tangible priorities

³⁵ SO will be realised after the project end. Assumptions identified are therefore rated in terms of speculative likelihood based on observed ongoing trends.

		<ul style="list-style-type: none"> • Further institutional capacity development remains key issue
GoT line agencies and LGAs increase allocation of financial resources to maintain momentum towards scaling up CBNRM and landscape plans implementation	LOW	<ul style="list-style-type: none"> • Uneven evolution with regard to fiscal allocations to the sector • Increased trend towards fiscal sustainability of GoT agencies • Hunting, main source of revenue for conservation of relevant areas, in historical decline • Increased trend towards flagship (infrastructure) development projects and lower local discretionality • Weak to very weak momentum in funding CBNRM and devolution via fiscal resources either at GoT or LGA own resources • Appraisal of requirements to maintain minimum momentum via fiscal resources produced via KVRs IMP
Overall growth in capacity, effectiveness and accountability of public service delivery by LGAs and GoT	MIXED	<ul style="list-style-type: none"> • Growth in effectiveness and focus of conservation agencies possible • Momentum towards inter-sector coordination to be established; prevalence of crisis management and reliance on apex GoT decision making • Downstream public accountability, growth of transparency in administrative decisions necessary to insure social transition amidst strongly competing demands in the sector • Change in intractable sectors (e.g., livestock, wildlife connectivity) difficult to bring about
Population growth/influx and resource harvest pressure do not outpace growth of institutional capacity	VERY LOW	<ul style="list-style-type: none"> • Population pressure in landscape very high and growing (700,000 people in 2012 will become 1,2M people in mid 2030s) • Outcome of current land regularization process, infrastructure development, upstream catchment management and development will shape future of the area • Agriculture intensification has strong room for growth but growth and capacity to mitigate farther habitat loss are uncertain • Risk of survival of wetland landscape in core area only with diminished overall landscape features and ecosystem services

Figure 6. WMA sites.

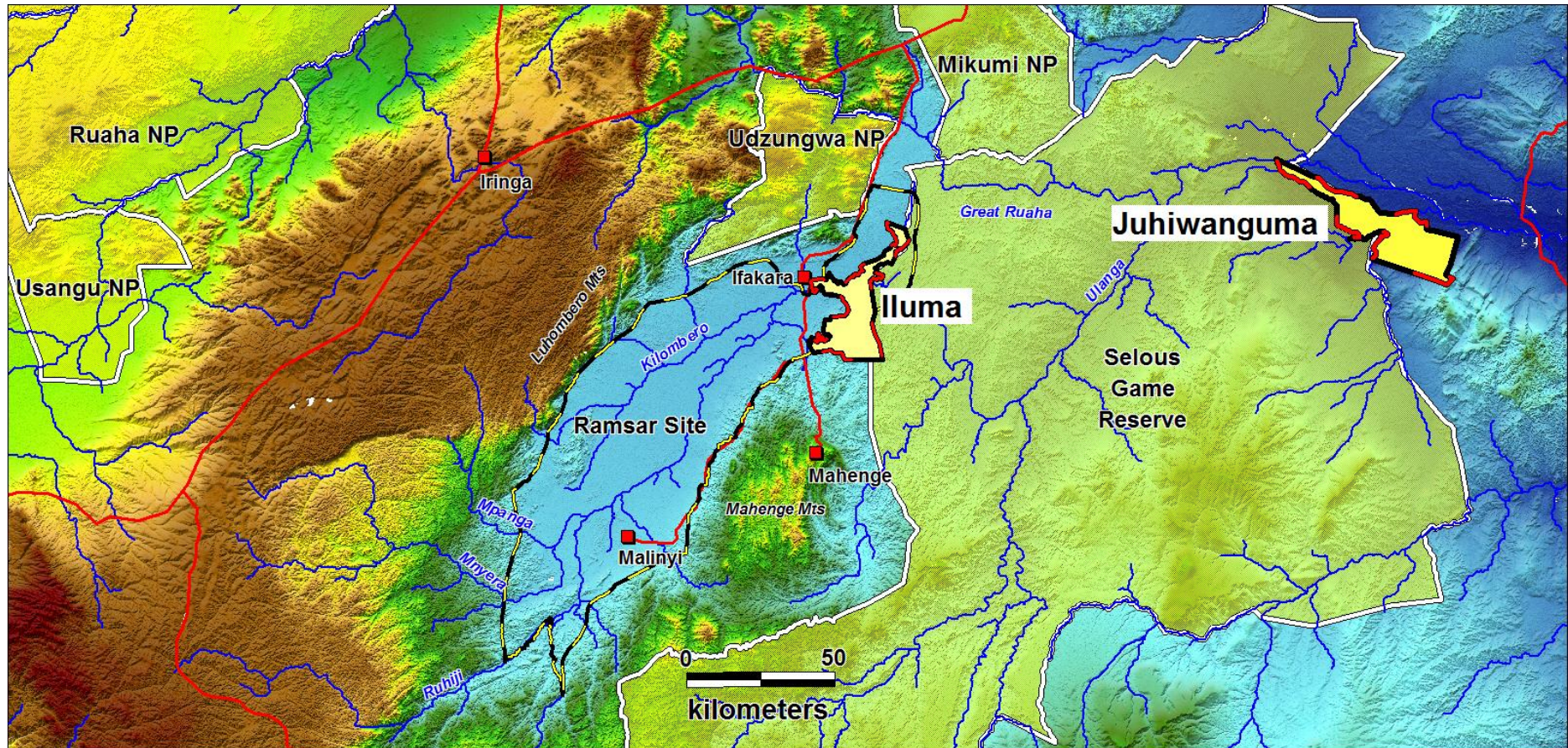


Figure 7. VFR sites.

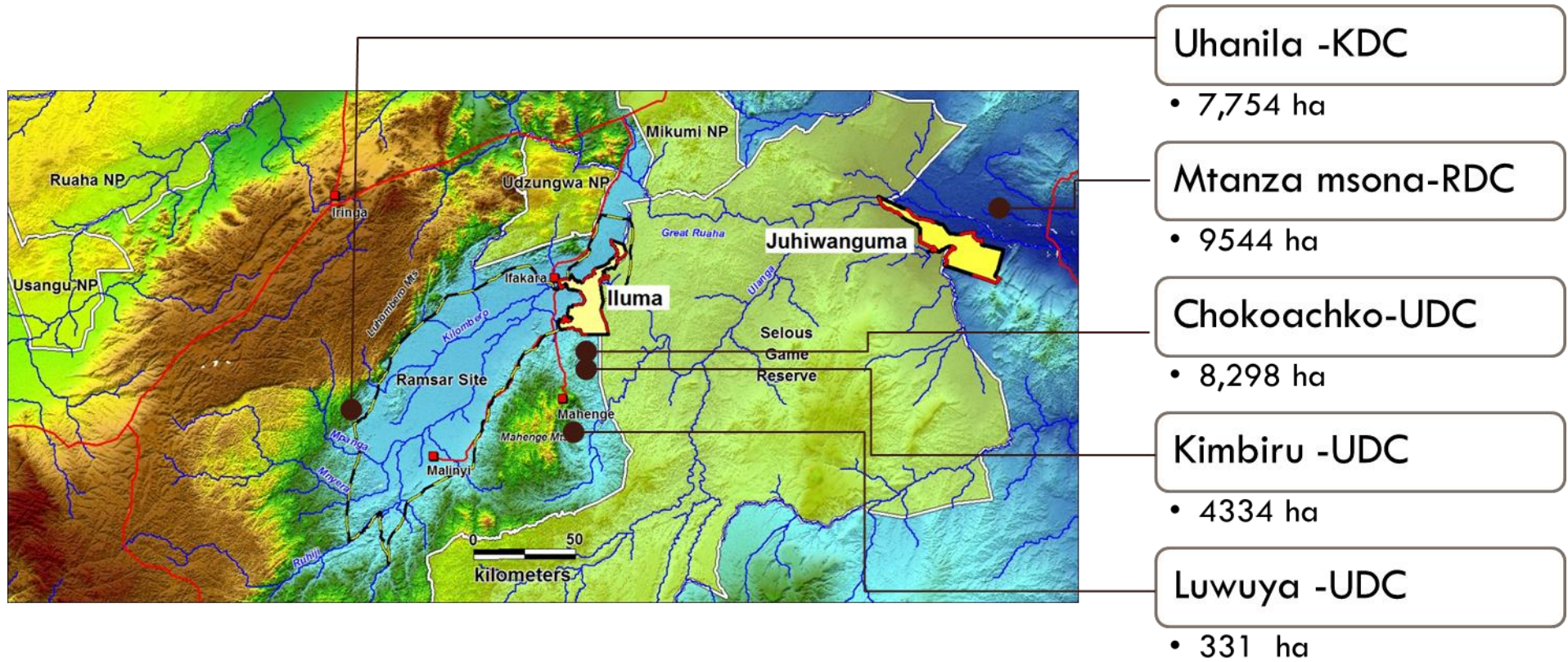


Figure 8. BMU sites.

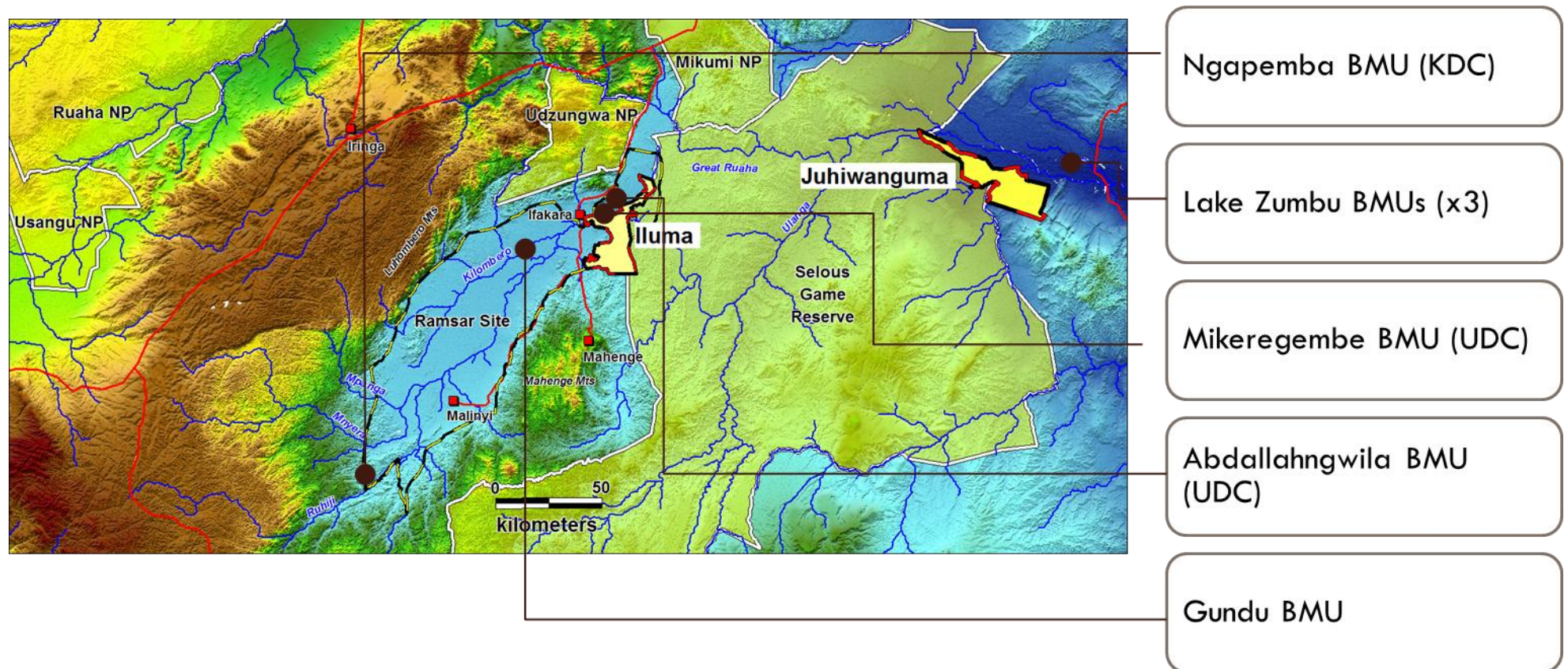
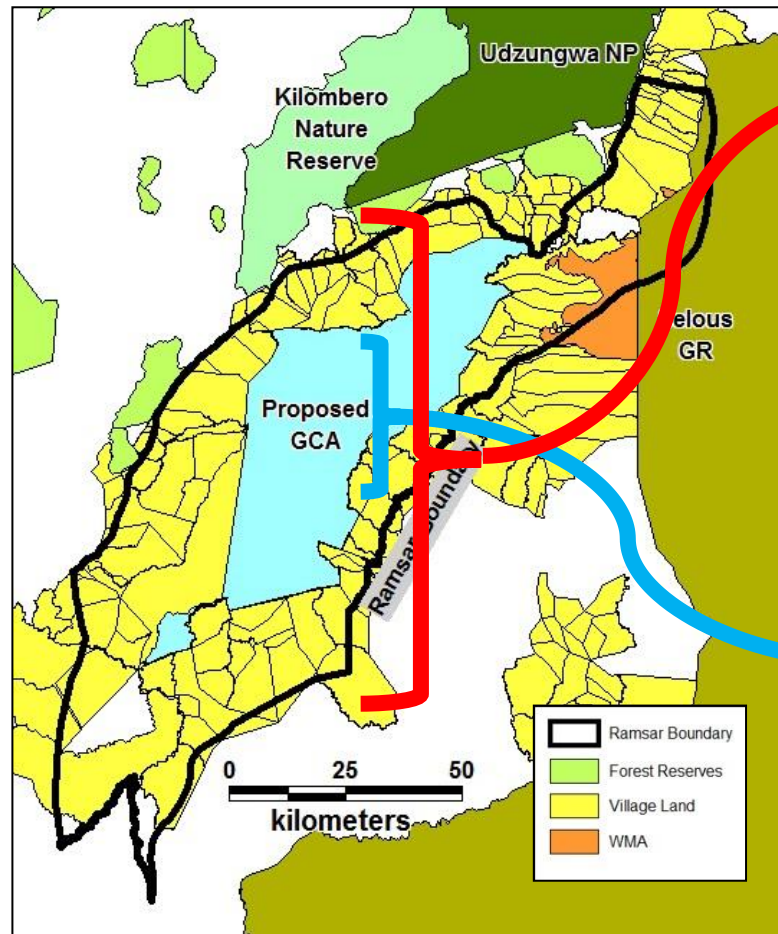


Figure 9. Two tier concept of wetland landscape management.



Ramsar site management (IMP)

- Vision / Coordination / Harmonization / conflict prevention and mitigation for wetland and biodiversity values/functions
- Priority wetland sites management plans
- Landscape connectivity management plans
- Integration within IWRMP
- Puku Conservation Action Plan
- CBNRM support

GCA management (GMP)

- Re-establishment of the KGCA
- Protected area management
- Collaborative fisheries management

2.2 Analysis of results

2.2.1 To what extent have outputs been achieved?

Establishment of WMAs. The two WMAs are legally established across more than 1,000 km². They cover ecologically important areas: these are dispersal areas between Selous Game Reserve (SGR) and riverine areas. Iluma has a role in seasonal wildlife movement across the landscape and also represents a buffer between SGR and booming farming and settlement areas. The project has equipped VGSs, established internal governance and management systems (Constitution, Board etc.); trained executives; supported land conflict resolution through DNRABs; marked boundaries; reviewed land use plans, prepared bylaws and the business plan; enabled ecological monitoring; exposed WMA members to other WMAs; trained in law enforcement. The two WMAs involve 14 and 15 villages respectively (those of Juiwanguma quite remote), for which they represent a first governance devolution process and enterprise development experience. The process has been slow (see below for analysis) and the two WMAs only approached business development at the end of the execution period. The closure of local hunting in 2014 undermined this early win identified during inception. Ongoing hunting tenders are led by the CWMA Consortium and have met so far with limited but critical business interest. It is crucial that LGAs and the CWMA Consortium continue supporting the WMAs in pursuing business opportunities, modest as these may be. The two WMAs have medium to low tourism hunting potential but might develop it if habitat disturbance is reduced. Ecotourism development might become more feasible when the macro-economic context will become again favorable for tourism investments (now rated as very low within the sector) and moreover access infrastructure will be improved towards Kilombero Valley (ongoing).

Establishment of VFRs. The project established 5 VFRs (3 in Ulanga, 1 in Kilombero and 1 in Rufiji) along the statutory steps foreseen by the regulations. These forests cover a combined area of about 30,000ha and involve 7 villages (one is a shared forest). The project supported the preparation of Forest Management Plans across all VFRs. It also supported extensive capacity building targeting both the VNRC (accountability, forest management, etc.) and the three LGAs, where Forestry staff were mentored on improved standards for forest inventory and harvesting plans. VNRCs and LGA staff were also trained in law enforcement, monitoring, good governance, forestry management techniques, and were exposed to other forestry enterprises via study tours. The phase-out phase includes preparation of systems for timber sales and accountability monitoring. All VFRs have received the hammer (i.e., approval of FMPs by FDB) except Uhanila, whose FMP is under review by FDB.

EXPECTED RESULTS

- **RESULT #1 - Key resource users** (wildlife, forest, fisheries, land & water) are organized to manage their resource base on wise principles within the framework of Community Based Natural Resource Management.
- **RESULT #2 -Key resource users, transformers and traders** (wildlife, forest, fisheries, grazing land, water etc) organized to derive sustainable economic benefits from wise resources management through access to markets and sound business management.
- **RESULT #3 - Strengthened capacities** of central, regional and local government structures to support and monitor the implementation of policies at local level and improved coordination between Natural Resource governance stakeholders at all relevant levels

Mtanza Msona VFR achieved its first timber sales in 2017, with revenues of about 120m TZS. This first sale, as often happens, was fraught with compliance problems. The project enabled auditing and reviews by LGAs and the sector association. Corrective measures were undertaken. The available timber stock and market demand make financial returns of the VFRs certain. The project prepared as phase-out plan timber sales systems for the other VFRs; it also negotiated an agreement for continued support by MCDI and LGAs via cost recovery from timber sales.

Design and Appraisal of Forestry PPP scheme: The project funded and led the process of appraisal of a Public Private Partnership scheme in Ulanga District, involving Kilombero Valley Teak Company ³⁶. The scheme intends to enable the sustainable harvesting of natural woodland owned by KVTC through a revenue-sharing scheme with neighboring communities. The scheme also can contribute to enabling the establishment of a timber enterprise capacity in the catchment, serving other VFRs via a scaling-up process. The forestry PPP scheme meets strong local interest. ³⁷ It can also play an important role in stabilizing forest habitat across a crucial zone of the landscape for wildlife connectivity (reflected in the KVRs IMP)³⁸. However, the project failed to kickstart the execution despite gaining co-funding pledges and good local collaboration. This is due to the lack of a conducive timber royalties' scheme for this particular forestry case. The matter has been raised with MNRT and addressed to the ongoing Forestry Policy reform process.

Establishment of BMUs. The project supported 8 BMUs in 5 villages along the statutory processes foreseen by the Fisheries Act and regulations. 7 of these BMUs have completed the establishment process (including registration, management plan and bylaws) and records have been submitted to the Department of Fisheries for registration. One site (Ngapemba) was paused midway during the project because it neighbors an area of top conservation interest which became a focal area for the IMP preparation process. The intention was to support the preparation of a fisheries management plan integrated with the overall site management plan. However, the delayed approval of the IMP preparatory workplan in 2017 did not enable this to proceed beyond the assessment phase ³⁹. The LGA delivered process of establishment of the 3 BMUs supported in lake Zumbi in Rufiji was rejected in 2016 by the communities when a review was supported by the project because of perceived top-down approach by LGA Fisheries officials. The project engaged an external technical facilitator group which had a long association with the lake, with the goal of re-establishing the management system with a stronger understanding of the resource base and a more participatory approach. (See BOX Lesson #2 and #3). Unfortunately, the provider was unable to complete their assignment beyond the assessment phase ⁴⁰. The process was later completed by the LGA under a new team. The BMU regulatory basis comes from Lake Victoria and sets requirements not easily fitting the Rufiji river context. In addition, KILORWEMP is not directly linked to the Dept of Fisheries and therefore is not optimally placed to support the regulatory review and technical adaptations. Technical adaptations were foreseen as part of the IMP KVRs preparation but were disallowed by the long delay in kick-starting the IMP preparation process.

³⁶ Feasibility Study of sustainable harvesting of natural woodland on KVTC land. KILORWEMP/KVTC/NFBPIL. 2014.

³⁷ Minutes of PPP stakeholder workshop, Ifakara, October 2017.

³⁸ KVRs Integrated Management Plan. Ruipa East Wildlife Corridor Plan. KILORWEMP. 2018.

³⁹ KVRs Integrated Management Plan. Ngapemba Conservation Area Appraisal Report. KILORWEMP 2018.

⁴⁰ Duval S., Paul J.L., Kassim K., Hamerlynck O., individual learning for organizational development: Partim: Facilitation of action-learning in participatory management of inland fisheries to two District Authorities of Rufiji and Kilombero. Final Report 24 October 2016

Box 1. Lesson (1). Why CBNRM establishment takes a long time.

- **CBNRM is hyper-regulated.** Regulations foresee multiple control steps. Several of these steps do not have technical standards (see lesson #3) and open to discretionary appraisals, uncertainty, delays. This is more so for WMAs and BMUs than CBFM. KILORWEMP's WMA User Rights were delayed because WD was concerned that WMA was encroached upon. An understandable concern. However, delaying WMA establishment delayed establishing incentives for wildlife land use. WMA tourism hunting tenders were strongly delayed for the lack of a game census, although this is strictly not a regulatory requirement.
- **Devolution cannot be supplied only and needs to be supported by accountability.** CBNRM is devolution, not just decentralization. Policy goals reflect this principle. In practice, the government sector often sees CBNRM as a low-cost decentralization of resource management. GoT needs to be reassured that the community's stewardship of resources is effective. Trust is not granted blindly: the first timber sale by a project supported VFR was fraught with problems and the District had to take corrective actions towards the VNRC. More broadly, service delivery accountability and bottom-up demand need to pull CBNRM, devolution cannot be realistically pushed from the top. CBNRM establishment is more than following the six steps: it requires investments in governance processes and creating confidence. The two delays in the WMA establishment were overcome when the WMA Executives represented their frustration and senior officials prodded action.
- **GoT/LGA support to CBNRM is stretched.** Fiscal revenues allocated to establish and support CBNRM are minimal or nil. Centralisation and fiscal sustainability trends for NRM parastatals do not favor devolution of user rights. CBNRM is subsidized by donor funding and community revenues. Community revenues in wildlife are fragile.
- **Transaction costs are very high** and are very difficult to compress. Fully mainstreamed devolution through bottom-up LGA planning, compounded by the uncertain standards, has been a recipe for inflating them.
- **Not all CBNRM sites can succeed:** when WMAs are established in areas with poor tourism or hunting prospects and VFRs in areas which (sometimes deliberately) do not include viable timber stock. Booming population and land conversion in the project's landscape threaten the basic tenets of CBNRM and justify ad-hoc incentives if CBNRM is to succeed: e.g., procedural simplifications (WD accepted Zoning Plans for the WMAs without costly consultancies as if often done elsewhere), stronger investment in processes and in conflict mediation, subsidy extended in time.

OPPORTUNITIES:

- ⇒ More efficient and effective CBNRM **requires regulatory simplification**, especially for WMAs and BMUs.
 - ⇒ Support CBNRM from the **demand side first**. This may well be sought outside government services. Public accountability (citizen <-> CBO <-> GoT) is key.
 - ⇒ Support Government services for what they are for: developing standards; **monitoring compliance**. Less for what they are not for according to policy: leading and demanding devolution.
 - ⇒ Pilot new modes of support to LGAs and GoT for CBNRM service delivery. **Overcome the pure direct subsidy**. Perhaps some form of payment for results modalities can be explored
-

Box 2. Lessons (2) Adapt BMU guidelines to riverine conditions.

- **Extension guidelines are lacking.** Existing guidelines provide an overall framework for organizing fisherfolks and mostly explain the regulatory process. The basic institutional framework and registration are required. However, they are overly prescriptive and do not provide technical guidance suitable for fisheries extension staff to prepare management and monitoring plans in the field conditions. LGA staff then borrow unsuitable standards from other sectors (e.g. land survey techniques used in KQRS BMUs sometime) or apply unjustified ecological assumptions (e.g., blaming livestock's impact on fisheries' productivity).
- **Regulations are designed to support compliance and licensing**, including taxation, and upward information flow (with a demanding system of data collection). They do not enable an adaptive approach to collaborative fisheries management fitting the specifics of the sites (fish stock, ecology, gear, access, type of fisherfolks, etc.) These can vary greatly in riverine conditions.
- **Transaction costs are very high** and make the scaling up impossible in vast sites with difficult access such as KQRS. LGAs established 4 BMUs across KQRS with external financing over 5 years. There is an excess of 70 candidate sites.
- **LGAs have very little support available from MLFD and other national actors.** Their main reference is fisheries management in Lake Victoria, which has a different context and does not work so well. LGAs were not able to transfer effectively by themselves an important experience of WWF s in the Rufiji delta. Small riverine water bodies also have their own requirements, different from Victoria lake or marine waters.
- **Delimitation of users is difficult and sometimes (e.g., river system) may not be possible.** The guidelines foresee that BMU members shall comprise fishers and all other value chain actors. BMUs can hardly pursue exclusive rights in rivers, as the theory preach to control effort.
- **The rationale for controlling effort is sometimes questioned.** Our preliminary assessment of fisheries in KQRS⁴¹ questioned the widespread assumption of overfishing and the rationale for mesh size restrictions. It rather pointed at the river flood as a key factor for fisheries productivity. A 10 years' research programme at Lake Zombe ⁴² (project's target lake) reached the same conclusions ⁴³. However, effort restrictions are entrenched in fisheries institutions, in Tanzania and worldwide.
- **The lack of a revenue incentive for BMUs** is a major weakness in the guidelines. However when this has been addressed, (e.g., WWF RUMAKI project), tax collection could become a game changer. The sustainability of BMUs as institutions, even when achieved by other sources of funds than fisheries regulation, often remains a challenge. On the other hand, fisherfolks, unlike in other CBNRM sectors, are already in business before CBNRM.

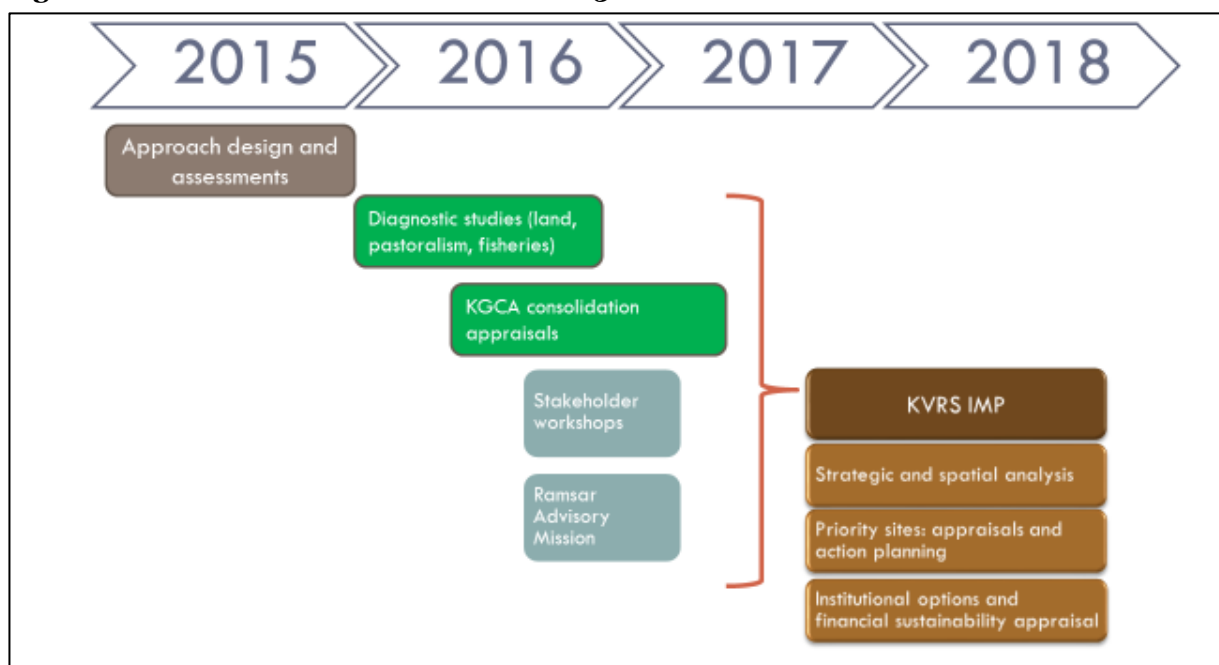
OPPORTUNITIES:

- ⇒ **Develop technical standards adapted to riverine conditions** for BMUs establishment and monitoring suitable. Keep them very simple and management light beyond obviously destructive practices (poison, explosive, etc.).
- ⇒ **Understand the riverine ecology.** Use the local ecological knowledge. Question ecological assumptions given for granted. Support long-term, simple data collection and review evidence.
- ⇒ **Build skills for participatory processes** and understanding of co-management. These are often lacking in LGAs.

⁴¹ KQRS Fisheries sector diagnostic study. KILORWEMP. 2017

⁴² Hamerlynck, Olivier, et al. "To connect or not to connect? Floods, fisheries and livelihoods in the Lower Rufiji floodplain lakes, Tanzania." *Hydrological Sciences Journal* 56.8 (2011): 1436-1451.

⁴³ Duvail, S. Presentation to BMU review workshop, Lake Zombe, 14.1.2014. IRD/KILORWEMP.

Figure 10. Overall timeline of result area #3.

Landscape-scale activities started later for the reasons explained. They consisted of 3 sets of activities:

- 1) A set of landscape assessments and consultations which improved the understanding of land use and its change over time; land tenure; fisheries; pastoralism.
- 2) A set of assessments of the Kilombero Game Controlled Area which improved the understanding of the basis for its consolidation, including tenure and options for consolidations.
- 3) A set of assessments and consultations which produced the Foundation stage of the Integrated Management Plan for the KVRS.

The scope of work was deliberately focused on protected areas and related land conflicts; wetland habitat and functional protection; landscape connectivity and stakeholder coordination. The project did not focus other than peripherally on other important domains for wetland management, because other interventions supported them, namely water resource management (IWRMP/DFID, EFA /USAID); land use planning on village land (MHLSSD/LTSP); and agriculture and irrigation development (SAGCOT, USAID/IRRIP).

Complementary activities included:

- 1) Preparation of an Inter-Ministerial Coordination Framework between MNRT and MLHHSD to enable synergy and harmonization between the KGCA consolidation, the KVRS management and MLHHSD led land tenure regularization across the whole valley.
- 2) Support to WD/TAWA Task force for the KVRS management, including capacity building on wetland landscape management.
- 3) Public awareness of wetland conservation values in Kilombero valley, via ad-hoc events and district level workshops.

- 4) The project facilitated an Advisory Mission by the Ramsar Secretariat in October 2016, which provided strategic recommendations to GOT to strengthen the sustainable management of the site⁴⁴.
- 5) Capacity building of TAWA staff on land and habitat survey via spatial analysis and geotagging ground photography. TAWA has also been equipped with a land reconnaissance survey kit.
- 6) Legal review to ascertain legal requirements and status of lands amidst change of laws (coming into force of the WCA No. 5 of 2009 to replace WCA No. 12 of 1974).

The project component #3 has had a challenging execution. The original plan was small, for policy review and general capacity building and monitoring of CBNRM. The EU co-funding enabled a complete restructuring to deal with landscape issues, namely the re-establishment of the KGCA and the management of the KVRs. However, this adaptation was practically enabled only after the signing of the co-funding agreement, in November 2014 (two years after project inception). Later, the project had to grapple with:

- ❖ The inception of a Land Tenure Regularisation Project by MLHSD: this offered strong synergy opportunities and also overlapping mandates. KILORWEMP facilitated the drafting and negotiation of an inter-ministerial coordination framework between MNRT and MLHSD to seek harmonization. This took a long time, causing significant delays and uncertainty. The coordinated implementation waned after an initial joint land data assessment. More recently, LTSP started funding the KGCA consolidation via MNRT as expected. However, the expected coordination of land use planning in village land reflecting the environmental safeguards and priorities identified by KILORWEMP supported analysis has not taken place. KILORWEMP tasks were also constrained by lack of access to updated land administration data.
- ❖ Diverging expectations on the KGCA consolidation: the funding DPs sought to complete a legal and procedural due diligence and the execution through the Inter-Ministerial Coordination Framework. MNRT felt the need for a more pragmatic solution, based on field level negotiations with the villages. This divergence and the stalled implementation of the Inter-Ministerial Framework generated a protracted stalemate during 2017.
- ❖ The DPs and MNRT eventually (November 2017) agreed that the KGCA consolidation will proceed without project support; while the project would complete this project component with the preparation of the foundation for the IMP for KVRs, plus infrastructure and equipment for TAWA. The delayed approval of the IMP workplan meant that its preparation, which was originally planned over 18 months, was compressed to within 7 months and a few tasks had to be dropped.

⁴⁴

Ramsar Secretariat. Report of the Ramsar Advisory Mission to Kilombero Valley Ramsar Site. April 2017.

Table 4. List of outputs of the landscape tasks.

KVRS Environmental Profile	Land Use Diagnostic Study
	Fisheries Diagnostic Study
	LULC mapping (with SWOS and GlobE)
	Pastoralism Diagnostic Study
	Ngapemba wetlands Reconnaissance Study
KGCA consolidation	KGCA Buffer zone reconnaissance Study
	KGCA consolidation Options Study
	KGCA Database of village boundary data (with LTSP)
	KGCA Consolidation Legal Note
	KGCA Consolidation legal review study
IMP Foundation	IMP Foundation Plan
	IMP Spatial Framework and GIS database
	IMP Financial Sustainability Appraisal
	IMP Strategic Issues Study
	IMP Institutional Options Study
IMP components	Puku Conservation Action Plan
	Ngapemba Conservation Area Appraisal Report
	Ruipa East Wildlife Corridor Plan
	Vulnerable wetlands Appraisal Study
	Livestock Sector Investment Appraisal
Land sector coordination	Review of DLUPFs submitted to MLHSD
	Inter-Ministerial Coordination Framework MNRT-MHLSSD
Consultative events (main)	5 Workshops on KGCA consolidation and KVRS Management
	1 national workshop on Ramsar Advisory Mission;
	1 regional workshop on landscape diagnostics
	1 workshop on KGCA consolidation legal study
	8 workshops on IMP process
	6 Task Force workshops
Capacity building (soft) inputs	Extensive review, mentoring and support to MNRT and LGA staff via TA inputs across all tasks
	Mentoring of TAWA staff on land reconnaissance survey techniques

Figure 11. Infrastructure and technical supplies procured.

Iluma WMA Office



Juhiwanguma WMA Office



Ulanga Wildlife Office



TAWA ranger Post - Malimba



TAWA Ranger Post - Malinyi



TAWA patrol vessel



LGA patrol vessel



VGS equipment



TAWA aerial reconnaissance equipment



2.2.2 To what extent has the outcome been achieved?

2.2.2.1 Local-scale (CBNRM).

The project's strategy (ToC) proposes that the outcome will be achieved as far as the factors identified as impact drivers will be enabled; it also identifies external factors (assumptions) critical for project performance.

Our analysis (M&E matrix above) shows that satisfactory progress has been achieved **in capacity development and networking**. However, delays in **CBNRM establishment** and in enabling **long-term partnerships** have weakened the immediate progress. The following table compares these drivers against the situation at inception.

EXPECTED OUTCOME

Strengthened capacities to implement the sustainable management policy and regulations to the Wetlands Ecosystem of the Kilombero Valley and Lower Rufiji, fostering sustainable livelihoods development and more effective natural resources governance within the decentralization framework.

Table 5. Before-after analysis of Impact Drivers for CBNRM.

	Baseline status ⁴⁵	Achievement	
CBNRM establishment	<ul style="list-style-type: none"> • WMAs still in establishment process after a long time • VFRs established for conservation 	<ul style="list-style-type: none"> • Security of tenure and user rights obtained for VFRs and WMAs • Statutory bodies and instruments for WMAs • Several tools and experiences in capacity development enabled • Fragile and uneven results for BMUs 	MODERATE
CBNRM business	<ul style="list-style-type: none"> • None • Business development a new concept 	<ul style="list-style-type: none"> • Proof of concept achieved • Fragile results for WMAs • New forestry opportunity created via PPP 	SATISFACTORY
CBNRM capacity	<ul style="list-style-type: none"> • Several gaps identified 	<ul style="list-style-type: none"> • Critical soft, institutional and hard inputs provided 	SATISFACTORY
Networking for social cohesion	<ul style="list-style-type: none"> • CBNRM units isolated • Little horizontal dialogue • Widespread land conflicts 	<ul style="list-style-type: none"> • Several CBNRM land conflicts addressed • DNRABs and joint district actions in support to WMAs • Several joint actions for VFRs • Accountability review and process with Mjumita 	SATISFACTORY

⁴⁵

KILORWEMP Baseline Study Report, 2013.

Partnerships for accountability	<ul style="list-style-type: none"> Not available 	<ul style="list-style-type: none"> Downward and upward accountability needs continued attention National exposure for CBOs WMAs networked with the CWMA Consortium VFRs networked with Mjumita 	MODERATE
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Overall, identified external factors (Assumptions) present a mixed picture: GoT and LGAs have been **supportive of NGO partnerships; transparency of local governance processes** and **resource status** have partially supported the strategy; limited **institutional support to CBNRM**, high **land pressure**, delayed **granting of user rights** and stalled **CBNRM reforms** have hindered progress in this domain.

We elaborate below the ToC analysis presented in the previous section.

2.2.2.2 Effectiveness of CBNRM

The project's inception plan was to seek early success in CBNRM to establish a momentum and credibility which had drifted in earlier projects. The explicit goal was targeting low hanging fruits for economic benefits: local hunting for WMAs and timber sales for VFRs.

The establishment process has been clearly slow, for the management reasons highlighted in the previous section and sector reasons highlighted in BOX Lessons #1. At MTR stage, the project accepted this context and revised its result benchmarks dropping the scaling up strategy and aiming at consolidating the pilot sites and experiences.

The project monitored annually the perception held by CBNRM units of their own effectiveness across multiple dimensions.

Table 6. Perceptions of CBNRM effectiveness⁴⁶.

	WMA			BMU			VFR		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Context	67%	89%	100%	61%	70%	70%	63%	70%	96%
Planning	41%	56%	74%	89%	52%	33%	74%	52%	59%
Input	30%	52%	41%	55%	33%	30%	43%	41%	50%
Governance	60%	81%	70%	69%	56%	38%	57%	63%	59%
Outcome	67%	50%	45%	71%	56%	27%	53%	42%	56%
Average	53%	66%	66%	69%	53%	40%	58%	54%	64%

	Average			Diff 2017-2015		
	2015	2016	2017	WMA	BMU	CBFM
Context	64%	89%	89%	33%	9%	33%
Planning	68%	55%	55%	33%	-56%	-15%
Input	43%	40%	40%	11%	-25%	7%
Governance	62%	56%	56%	10%	-31%	2%
Outcome	64%	43%	43%	-22%	-44%	3%
Average	60%	57%	57%	13%	-29%	6%

We can observe diverging trends between the types of CBNRM units: WMAs and CBFM sites show an overall positive trend over time of the self-assessed indicators. This is particularly true for the dimensions of CONTEXT and INPUTS. Values for GOVERNANCE and PLANNING are mixed. The values for OUTCOME are downward for WMAs and slightly positive for CBFM. The BMUs show overall negative trends across all dimensions assessed except planning. We find this consistent with the progress reported by the project, and also affected in this dataset by a sample bias.

WMAs and CBFM sites have moved forward with planning and are approaching business development. However, the long-time lapse spent before reaching real business and income generation has been a source of frustration for the CBNRM respondents. It is noted that this survey was carried out before the project's CBFM phase-out stage when VNRCs were prepared for timber sales and were networked with the sector association and the leading NGO in the sector.

In the case of BMUs, the survey monitored the same sites which had been monitored consistently through the annual surveys. However, it happened that these two BMU sites were those affected by implementation issues and respondents clearly show a sense of lack of direction. The PIU feels that while the BMU performance assessment carried out in this CGMET report represents the situation observed, this was no longer representative of the average progress across the target BMUs.

The progress at the site in Rufiji was delayed due to the community rejecting the BMU establishment process in 2016 and then the project had to re-establish the management system: this process was still ongoing at the time of the survey.

In the case of Ngapemba BMU in Kilombero, the progress on this site was deliberately paused by the project in 2016, because this site is part of a key wetland area identified and studied as part of the preparatory work for the Integrated Management Plan for the Kilombero Valley Ramsar Site and targeted for ad-hoc assessments and management planning. The project with authorities had deliberated to pursue further BMU development (especially preparation of management plan) as part of the management of the wider wetland site (Ngapemba conservation area) because fisherfolks appeared in conflict with the hunting company established in a nearby hunting block of high biodiversity value. There was a need to harmonize the management of fisheries with the overall wetland management measures. The project prepared plans to do so as part of the IMP establishment process. Unfortunately, these plans were approved with a very large delay in late 2017. The scope of work, therefore, had to be reduced and the more process-oriented tasks concerning fisheries management had to be canceled. However, a detailed participatory assessment was carried out and involved the fisherfolk (reported in an ad-hoc report).

2.2.2.3 CBNRM economic benefits

The following table 8 summarizes the status of the WMA and VFR sites. The project has established small momentum in 2 units and has laid the foundations for certain business in VFRs. WMAs prospects are affected by context (resumption of local hunting, the outcome of ongoing tenders, continued management of encroachment pressure). The potential for forestry revenues is very significant. As an example, we present the projections from one of the largest sites:

Table 7. Chokoachoko VLFR Harvest Plan and Potential Revenue

Name	Scientific Name	Cat	5 Years		TFS Rate	Revenue Tsh
			#	M3		
Mgelegele	<i>Brachystegia bussei</i>	V	491	2,226	88,320	196,600,320
Mhembeti	<i>Sterculia quinqueloba</i>	II	356	1,582	176,640	279,444,480
Mkola	<i>Afzelia quanzensis</i>	IB	343	1,564	235,520	368,353,280
Mninga	<i>Pterocarpus angolensis</i>	IB	209	744	235,520	175,226,880
Myombo	<i>Brachystegia boehmii</i>	V	1,006	3,478	88,320	307,176,960
Mpingo	<i>Dalbergia melanoxylon</i>	IA	374	639	264,960	169,309,440
Mtondoo	<i>Brachystegia specifomis</i>	V	785	3,837.70	88,320	338,945,664
Mkangazi	<i>Khaya anthotheca</i>	IB	98	325	235,520	76,544,000
Mninga maji	<i>Pterocarpus tinctorius</i>	IB	294	1,123	235,520	264,488,960
Total			3,956	15,519		2,176,089,984

The fully established VLFRs have the potential to generate considerable annual revenue in the near future (FY 2018/19). This should be adequate to provide resources to the LGAs under revenue-sharing arrangements for supportive supervision, monitoring and follow-up to the VLFRs and support other sustainable natural forestry management activities in the Councils. Risks involved in view of the projected large amounts at stake and capacity of the community institutions involved should, however, be adequately mitigated.

The revenue sharing ratios appear to be unbalanced with a relatively high proportion allocated to the committee and its members. This is a likely source of conflict and needs to be managed through review and advice from the LGAs and partner NGOs. Under present arrangements and village population, annual revenue from the VLFR is around Tsh 43,500 per capita. This is assessed as sufficient to off-set opportunity costs of the community.

The BMU economics is different. BMU members are already in business. The question is rather on the institutional sustainability of the BMU. The BMUs in Ulanga and Kilombero have been prepared by LGAs to act as collectors of licensing fees and will be allowed to retain a commission. This model has met some success in experiences elsewhere (WWF RUMAKI).

Results are still fragile. All CBNRM units require support in the next steps. The project has delivered models, preparedness and critical relationships (also with sector actors beyond LGAs) to enable this. During the phase out stage, the project supported the preparation of an MoU among LGAs and Mjumita and MCDI to ensure continued support during the forthcoming timber sales.

The financial sustainability and profitability of the enterprise based on the forestry PPP scheme depend on the royalties' regime, as pointed out. The following figure shows the returns under multiple business cases.

Figure 12. Profits and loss from PPP scheme ⁴⁷.

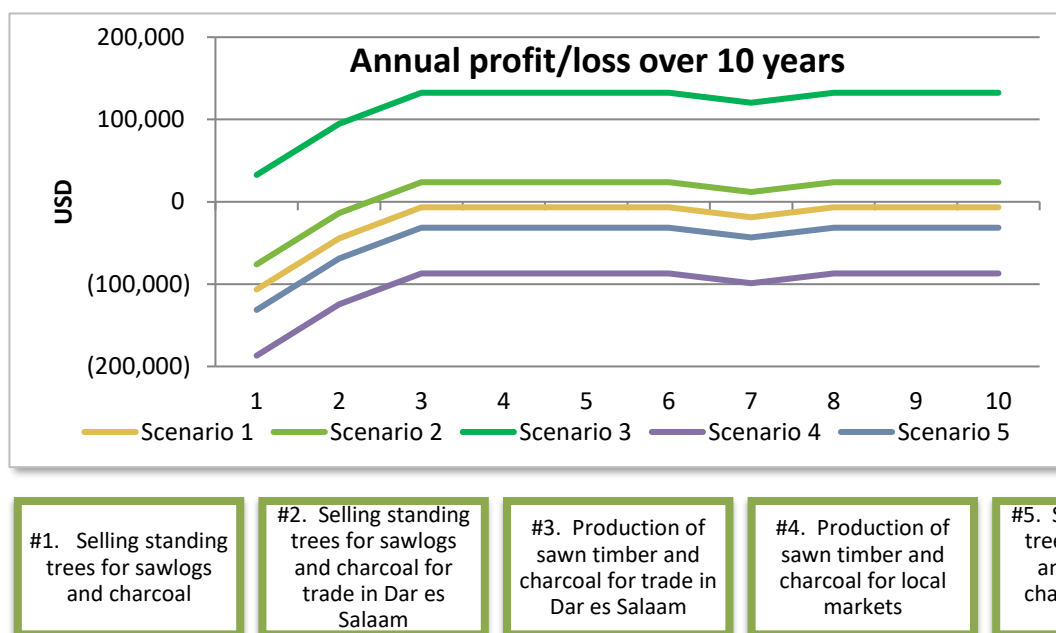


Table 8. Status of business development in CBNRM units.

	N of villages involved	Revenue generation status	Short term Business likelihood	Business source	Enabling inputs delivered	Next steps	Support required
WMA: Juhiwangumwa	14	Not yet	MODERATE	Tourism hunting	<ul style="list-style-type: none"> • Business Plan • Institutional capacity development 	<ul style="list-style-type: none"> • Complete tender for tourism hunting 	<ul style="list-style-type: none"> • CWMAC (responsible for tender) • LGAs (negotiation support)
WMA Iluma	15	Started 2015	MODERATE	Sport fishing	<ul style="list-style-type: none"> • Business Plan • Institutional capacity development 	<ul style="list-style-type: none"> • Complete ongoing negotiations for sport fishing and tourism hunting 	<ul style="list-style-type: none"> • CWMAC (responsible for tender) • LGAs (negotiation support)
CBFM: Mtanza Msona	1	Started 2016	ONGOING	Timber sales	<ul style="list-style-type: none"> • Timber sales plan and tools • Governance preparedness • Institutional capacity development 	<ul style="list-style-type: none"> • Exit action plan on timber sales agreed 	<ul style="list-style-type: none"> • MoU with Mjumita, MCDI and LGA for extended timber sales support
CBFM: Libenanga	1	Not yet	HIGH	Timber sales	<ul style="list-style-type: none"> • Timber sales plan and tools • Governance preparedness • Institutional capacity development 		
CBFM: Idunda	1	Not yet	HIGH	Timber sales	<ul style="list-style-type: none"> • Timber sales plan and tools • Governance preparedness • Institutional capacity development 		
CBFM: Kichangani	1	Not yet	HIGH	Timber sales	<ul style="list-style-type: none"> • Timber sales plan and tools • Governance preparedness • Institutional capacity development 		
CBFM :Uhanila VFR	3	Not yet	HIGH	Timber sales	<ul style="list-style-type: none"> • Institutional capacity development 	<ul style="list-style-type: none"> • Confirm royalties' regime • KVTC is seeking co-funding support 	<ul style="list-style-type: none"> • MNRT/FDB/TFS
Forestry PPP with KVTC	6	Not yet	HIGH	Timber and charcoal sales	<ul style="list-style-type: none"> • Feasibility study • Concept plan and local consultations • MoU • Draft FMP agreement 		

Box 3. Lessons (3): Approach to CBNRM capacity development.

- **CBNRM is heavily regulated.** The regulations refer to six steps. In reality, technical steps are very many and often exceed the management steps applied to state reserves.
- **Technical standards are often uncertain.** Regulations exist for WMA, VFR and BMU. Technical standards often do not. The SWMP project, which inspired the design of KILORWEMP, produced mostly administrative guidelines ⁴⁸ (e.g., sites inventory, fund transfer via MTEF, progress monitoring). Some technical standards are there for CBFM (PFRA). Other standards (BMU steps) are developed for other contexts (Lake Victoria's fishery is very different from riverine fisheries). Despite the > 15 years CBNRM history, other critical steps are not standardised: e.g., forestry harvesting plans; fisheries assessment and management plans; WMA zoning; WMA assessment status for User Rights; WMA business plans; WMA hunting block grading / establishment.
- **Available capacities to prepare technical standards and build LGA/GoT capacities are few.** E.g., miombo harvesting plan capacities are mostly confined to SUA and MCDI; CBFM timber sales capacity is confined to MCDI. The project struggled to identify local capacity to adapt fisheries assessment and management planning to the local conditions: a widely disseminated tender for services was unsuccessful. When capacities exist, these are often on hard systems (e.g., forest inventories, economic resource assessments). Capacities to develop soft systems (e.g., CBO internal governance systems, public accountability), which are crucial for CBNRM effectiveness⁴⁹, are scarce and mostly within the NGO sector.
- **Training prevails in capacity development but often delivers little.** Local service providers are well versed with formal and academic training, which often proves a weak approach to capacity development in this context. They are often much less experienced in mentoring and Organizational Development or experiential support (e.g., the project aborted a service contract for CBNRM monitoring capacity development, because the provider struggled to move on from an academic and theoretical mindset). The same approach is replicated in support delivered by Government services.
- **The project multisector strategy** involved 5 CBNRM sectors, reduced to 3 during the Inception Phase. This stretched the ability to tackle capacity bottlenecks. The project selected few key technical standards in each domain ⁵⁰. Some were successful, some others were not. The project was not suitably anchored for fisheries management, was well anchored for wildlife management and indirectly anchored for forestry management (it used effectively a collaboration with a national forestry sector project to overcome this).
- **Capacity development takes a long time.** There is a need for iterative mentoring support. The preparation of Business Plans for the WMAs was well received: it took one year of repeated coaching sessions and action learning. Forestry inventory and harvesting plan standards took 2 training phases, field trials and a final QC input..

OPPORTUNITIES:

- ⇒ **Ensure that a capacity building project is anchored** with GoT line agencies responsible for sector. Balance capacity building effort for multisector projects.
- ⇒ **Move beyond training towards organizational development.** Seek buy-in on capacity building goals by top management of recipient organizations to enable this.
- ⇒ **Develop long term partnerships** with competent service providers. Invest in the capacity of the service providers.

⁴⁸ MNRT. Sustainable Wetland Management Project. Wetland guidelines, 2013.

⁴⁹ KILORWEMP Training and capacity building needs assessment. 2014.

⁵⁰ KILORWEMP. Capacity Building Plan, 2014.

2.2.2.4 Landscape-scale wetland management

The project's strategy (ToC) proposes that outcomes will be achieved as far as the factors identified as impact drivers will be enabled; it also identifies a number of context factors (assumptions) likely to affect the outcome.

Our analysis (see detail matrix above and summary in the table below) points out that the project has contributed very significantly to **improving the understanding** of environmental change and wetland management priorities; has supported some **capacity development of key stakeholders** (national agencies, local government) by engaging them in reviews of analysis and conflict resolution options; has supported opportunities for policy review (technical analysis, documented lessons learned, **policy implementation review processes**), however these have delivered limited direct results during the project's lifespan; has supported extensive processes of **networking and dialogue among stakeholders**; however it has achieved little institutionalisation of these processes during the project lifespan; has generated a vision and priorities for institutionalisation of landscape coordination through the IMP foundation.

Table 9. Before-after analysis of Impact Drivers for landscape and policy progress.

	Baseline status	Achievement	
Stakeholder capacity in negotiation and conflict management	<ul style="list-style-type: none"> • Very conflictual and unfinished KGCA consolidation attempt • Multiple land use and tenure conflicts • Diffuse narrow focus on sources of conflicts 	<ul style="list-style-type: none"> • Much improved information base for landscape decisions • MLHSD land regularisation ongoing – limited coordination with NRM sector • KGCA consolidation ongoing with intensive and gradual process • Traditional conflict analysis (pastoralists versus conservation) still prevails; however, livestock sector transformation investment plan produced. 	SATISFACTORY
Improvement in access to information	<ul style="list-style-type: none"> • Scattered information in grey literature mostly • Vast information and analysis gaps in crucial landscape management domains (land tenure, land use, land use change, habitats, economic drivers, etc.) 	<ul style="list-style-type: none"> • Critical analysis on wetland management domains produced and disseminated • Synthesis reports produced 	VERY SATISFACTORY
Policy review and adaptation	<ul style="list-style-type: none"> • Draft wetland regulation • SWMP framework as reference 	<ul style="list-style-type: none"> • Large and well documented body of evidence • Stalemates on PPP incentive and KGCA legal review • Wetland regulation stalled; wetland policy abandoned 	MODERATE

Landscape and national networking	<ul style="list-style-type: none"> • Uncoordinated and extemporary initiatives • Coordination vision proposed by SAGCOT ESMF 	<ul style="list-style-type: none"> • IMP Foundation vision, appraisal, priorities available • MNRT-MLHHSD coordination mostly stalled • IWRMP-wetland management coordination yet to come 	MODERATE
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Among the identified external factors, the outcome is reinforced by **political support** to wetland conservation in the landscape; is only partially supported by **GoT agencies' participation in the IMP process, adaptation and mainstreaming of conservation plans, policy review** processes, and **interagency collaboration in land use planning**. Hindering factors have included the very early stages of implementation of the **Rufiji IWRMP** and the **weak coordination with MLHHSD/LTSP**. Uncertainty still surrounds **decision making on the KGCA** consolidation and **follow-on** towards implementing the recommended wetland management measures.

2.2.2.5 Kilombero Valley Ramsar Site Integrated Management Plan

The preparation for the IMP has been informed by:

- 1) Technical analysis carried out by KILORWEMP and other actors, which were brought together in a Strategic Review Paper.
- 2) Recommendations of the 2016 Ramsar Advisory Mission: this produced a large set of recommendations. The IMP Task-Force reviewed them and elaborated a follow-on plan with feasible, short, medium and long-term timelines.
- 3) A review of the institutional options for inter sector harmonization at the landscape scale, based on the Tanzanian framework and experiences, as well as informed by international standards and experiences. This institutional appraisal was complemented by a financial sustainability appraisal.
- 4) The production of an action plan for overall coordination within the landscape, combined with priority site management measures (Figure 13).

The IMP wants to enable the following broad actions:

- 1) Long term, continuative mechanism of coordination of stakeholders on wetland management issues and across keys sectors (land, local development, water resources, natural resource management, environmental protection).
- 2) Harmonization of the mosaic of key conservation areas and support to them: protected areas, CBNRM, connectivity, vulnerable sites.
- 3) Conflict resolution mechanism
- 4) Revenue sourcing

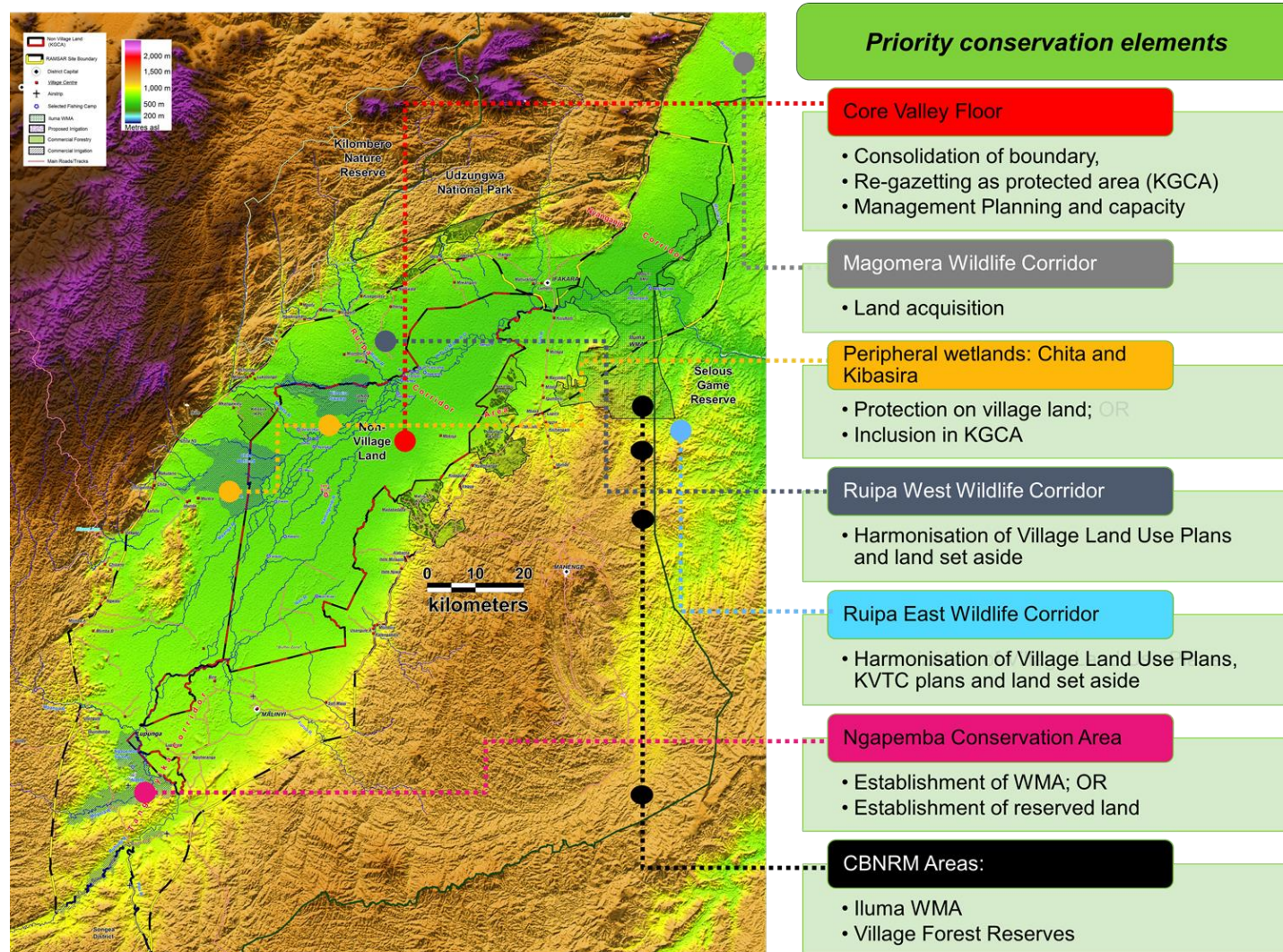
Realistically and based on experiences in Tanzania and elsewhere, the IMP is proposed as a gradual long term undertaking rather than a textbook of solutions and actions. This may be pursued in 3 broad phases:

Phase I: Foundation (present): appraisal, conceptualization and elaboration of an IMP framework through envisioning; technical appraisal and stakeholder consultations; Identification of statutory and policy review requirements;

institutional option for coordination and management, preparation of first suite of site and sector specific measures for quick impact; and funding plan for phase II.

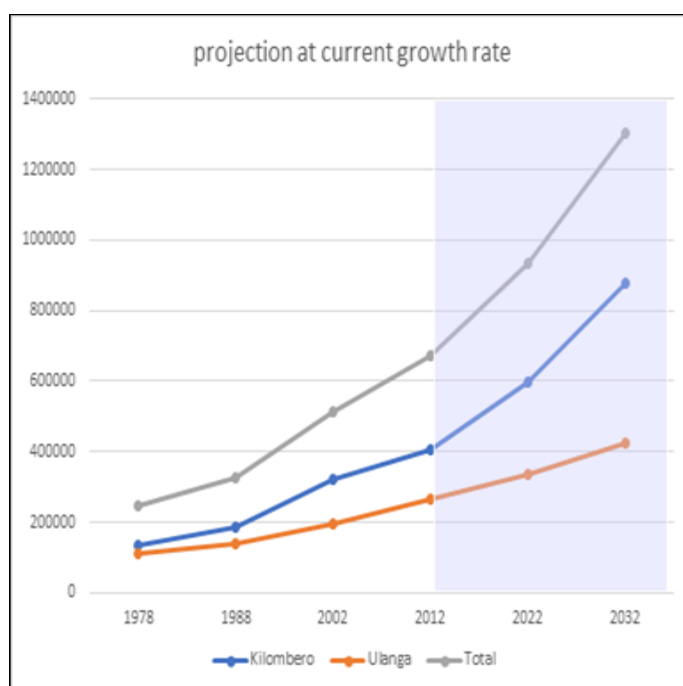
Phase II: Development (3 years): establishment of essential coordination functions; review of physical planning instruments and lower level plans; development of technical capacities in LGAs; development of performance monitoring system; leveraging external finance.

Phase III: Roll out (5 years): implementation of planning instruments; adaptation of lower level plans; continued institutional and technical capacity development; review and adaptation of IMP; capital investments in wetland management and rehabilitation.

Figure 13. Priority site management measures for KVRs.

We have identified three broad scenarios of implementation.

Business as usual	Essential IMP	Extended IMP
<ul style="list-style-type: none"> • Agencies and stakeholders continue in their present functions and modalities of interaction without a sustained coordination mechanism. • Some sectorial activities will make progress, e.g., the KGCA consolidation; NGO conservation projects; the land tenure regularisation; CBNRM operations. • No shared vision for the landscape. 	<ul style="list-style-type: none"> • Certain coordination functions are strengthened as compared to the BaU, to pursue essential priorities of sustainable wetland landscape management: continuative stakeholder dialogue and conflict resolution; essential consultative and NRM processes; fund raising for external financing. • Limited or no extra funding support. Core functions are sustained by GoT (central, local) resources only. • A landscape coordination mechanism selected to lead essential functions. This role is seen as continuative in time and not a one-off. It enables dialogue, monitoring and follow-up. 	<ul style="list-style-type: none"> • External financing • Comprehensive suite of coordination, technical backup, stakeholder engagement and monitoring functions. • Capital investments, such as for habitat restoration, sustainable agriculture and livestock development.



The expected outcome of **Business as Usual** is unsatisfactory. Under unrelenting demographic and economic development pressure, the KQRS ecosystem will be under increased strain. Likely socioeconomic outcomes will include: better infrastructure; growth of population (1.2million projected by 2030), human settlements; economic development; opportunities in tourism; growth of tax base and local revenues

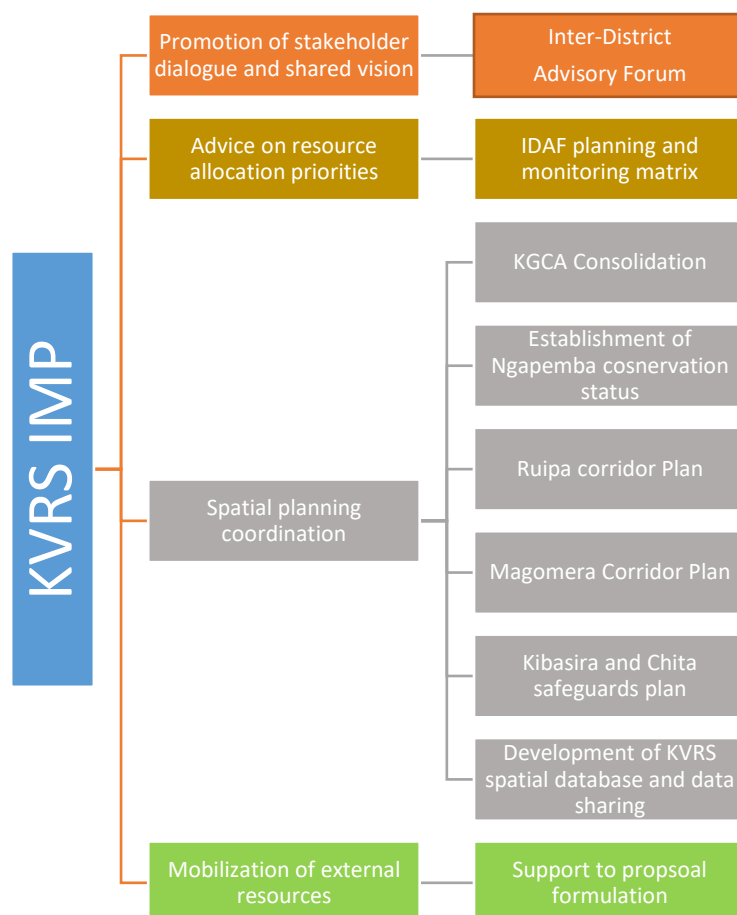
Figure 14. Projected demographic growth in KQRS.

Table 10. Plausible environmental outcome of BaU scenario.

❖ Further loss of wetland habitat and forests
❖ Further & irreversible degradation of wildlife connectivity
❖ Consolidation of settlements and human use in fragile environments
❖ Unsustainable, uncoordinated investments in agriculture (small irrigation schemes) with changes in ecosystem
❖ Continued conflicts with livestock sector. Missed opportunities: gradual transformation of livestock sector and environmentally sensitive intensification of rice farming
❖ Missed opportunities: consolidation of CBNRM.
❖ Few conservation areas will survive in an increasingly fragmented landscape and lower ecosystem services
❖ Lower resilience to climatic changes

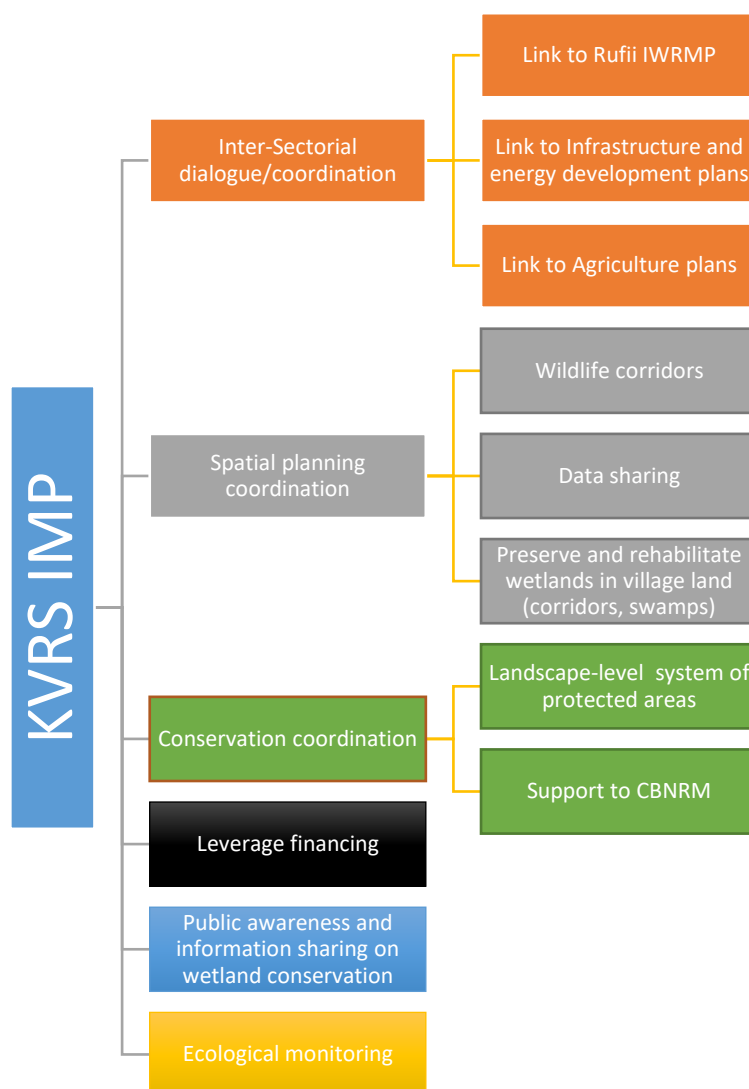
Figure 15. Essential IMP structure.**The Essential IMP Scenario**

assumes that a mechanism will be established to support intersectoral dialogue in a continuative manner (e.g., stakeholder meetings across the valley) to build gradually shared vision of the environment. This scenario foresees funding only from national resources (see below). The dialogue and review will advise LGAs and GoT agencies on the allocation of resources to environmental actions (e.g., CBNRM, land use planning reviews, etc). This mechanism can be adequate to introduce strengthening of zoning and harmonization of land use planning across the 4 LGAs and to pursue essential actions plans already identified in priority sites (KGCA, Ngapemba, corridors, CBNRM, wetlands). It will also enable sourcing external funding to reach the 3rd scenario.



The **Extended IMP scenario** is not seen as an alternative to the second one but as its evolution triggered by external financing. This would enable pursuing when of the more structured options for landscape coordination identified. It would strengthen the harmonization with sector plans for energy, water, infrastructure and agriculture; strengthen the capacity in land use planning harmonization; ensure continuative and more effective coordination of the landscape-level system of protected areas, support to CBNRM and the conservation and rehabilitation of vulnerable wetland sites; enhance public awareness and information sharing on wetland conservation; and deploy a permanent system of ecological monitoring

Figure 16. Extended IMP structure.



To move this design forward and ground it in Tanzania's institutional framework and experiences, we conducted a review of institutional models for landscape coordination⁵¹. These were presented to several stakeholders for a. The points raised were: any measure would require financial resources, a clear workplan and technical support; the mandate of any landscape levels setup needs to be clear; among the several options presented, there was prevailing preference for either a Valley Authority, or a Joint Council/District Committee; there was not much confidence that LGAs can allocate own resources to it and there was acknowledgement that all GoT was focused on Stigler's Gorge hydropower scheme as flagship project⁵².

Given the status and immediate prospects, it appeared that the most feasible near-term solution would be to establish a **Joint LGA committee + Co-opted members from key GoT agencies (TAWA, RBO, VPO, MLHSD)**. This blended mechanism can build on the inter-sector capacity of which LGAs have shown some initiative (PLUM teams, DNRABs) and also involves the key national sector agencies.

Our financial sustainability analysis indicated the possibility and opportunity of 3 fiscal measures to kickstart the next phase of the IMP with GoT resources (see IMP Foundation Plan document for details). This will trigger phase II for the IMP development (the **Essential IMP model**).

Fiscal Measure # 1:	Fiscal Measure # 2:	Fiscal Measure # 3:
<ul style="list-style-type: none"> •LGA: Allocation of additional Own Resources Revenues collected from Natural Resources to expenditure to support IMP, CBNRM and sustain revenue sources (budget-neutral change of 5.7% of total Own Resource revenues of all four LGAs combined) 	<ul style="list-style-type: none"> •Intergovernmental transfers: Increasing allocation to personal emoluments of Natural Resources+Production sectors to strengthen staff establishment of the departments and units to support the IMP and sustain revenue sources: (budget-neutral change of 0.8% of total IGT of all four LGAs combined); 	<ul style="list-style-type: none"> •Central Government to match the LGA re-allocation in OSR for IMP institutional coordination and management process (Tsh 450.0 million per year).

⁵¹

KVRS IMP Foundation. Institutional Models Study. KILORWEMP. 2018.

⁵²

Minutes of IMP Foundation consultations. KILORWEMP. 2018.

Box 4. Lessons (4): Avoiding known failures in landscape management: the Ruaha experience.

- This case study reviewed by the IMP Foundation process presents important similarities and relevant lessons learned.
- The Great Ruaha River Sub Basin 85,554 km² (47% entire Rufiji Basin); Usangu Catchment 21,500 km² (12% of Rufiji basin) involves Mbarali (54%), Mbeya (R), Chunya – Mbeya Region; Mufindi, Iringa - Iringa Region; Njombe, Makete – Njombe Region. Lead agencies were the Ministry of Water and Irrigation. Management development was funded by several external initiatives: RBM/SIIP (World Bank, 1998 – 2003); 2. SMUWC (DFID, 1999 - 2002); 3. RIPARWIN (DFID & FAO, 2003 – 2005); 4. Ruaha River Water Program (WWF, 2003 – 2008); 5. SUALDWC: (VPO, 2006 – 2010); 6. WSDP: (Basket Funding Phase I: 2006 – 2015). Key Stakeholders (GoT) included the Rufiji Basin Water Office (RBWO); Ruaha National Park; Mbarali District Council; TANESCO, (NSA); Kimani Catchment Water Committee; Mbuyuni, Uturo and Isenyela Water User Associations; WWF Tanzania Country Programme Office.
- Actions included Strategy LUP Coordination: 2002 Usangu GR; 2007 Ruaha NP expanded; VLUP under SUALDWC; Livestock and fishers evicted; conflicts unresolved
- Mechanism Inter-Sectoral Coordination included: CWC, WUAs and Apex body under SMUWC and WWF; Rufiji IWRMP 7 vol. (20 pg Mbarali Chapter); Fee payment respected; Monitoring Stns.
- RBO under-resourced; decision making outside catchment; VEC and VLUP not linked;
- Environmental outcome: Ruaha not flowing all year.
- VPO - TF is reassessing the whole sector (propose Env. Protected Area and Catchment Authority under VPO)

OPPORTUNITIES:

Pitfalls	Possible solution
Lack of shared vision among stakeholders	Need shared vision, owned by Stakeholders
Decisions are taken outside the area	Empower local decisions and actions
Crisis management/agenda of the moment	Long-term and sustained vision implemented
Victimization of stakeholders	Create win-win by inclusion and involvement
Decisions weakly based on scientific evidence	Monitor key environmental changes
Some arbitrary actions are taken	Enable stakeholder learning/review decisions
Catchment management not linked to land use planning	Link the VLUP with WUAs and enforce the plans and bylaws
Improved management takes time/ some environmental changes may be irreversible	Remain alert to change. Develop an institutional mechanism to support all of the above processes over time

2.2.3 To what extent will the intervention contribute to the impact?

The ecosystem of the target landscapes and especially of Kilombero Valley has changed profoundly over the last 20 years. KILORWEMP's analysis, along with the analysis produced by others, has improved the knowledge about this complex change⁵³.

The project's strategy (ToC) assumes⁵⁴ that impact will be enabled to the extent that agriculture investments plans will respect environmental safeguards; GoT line agencies and LGAs increase allocation of financial resources to maintain momentum towards scaling up CBNRM and landscape plans implementation; and political support to the NRM sectors grows.

EXPECTED IMPACT

To sustainably manage the wetlands Ecosystem of the Kilombero Valley and Lower Rufiji so that its ecological balance is conserved, the local communities' livelihoods are improved and economic development is sustained.

2.2.3.1 Agriculture investments and basin development plans⁵⁵

The project started in a landscape context characterized by a strong public drive towards **large-scale agriculture investments**. These were spearheaded by the GoT's Big Results Now (BRN) initiative and the Southern Agriculture Growth Corridor (SAGCOT). The initiatives sometimes overlapped. They both supported agriculture intensification and in particular large irrigation schemes. The fertile floodplain of Kilombero Valley was identified as the prime cluster of SAGCOT. GoT studied land availability for investments on a few occasions. USAID supported the feasibility study of 4 large irrigation schemes in the valley. EU (jointly with DFID....) funded a SAGCOT support programme for rural electrification, road infrastructure and post-harvest facilities.

These measures were accompanied by **environmental safeguards**. WB prepared an SRESA in 2013 which cautioned the agriculture development plans in view of the environmental fragility and land conflicts. USAID undertook an Environmental Flow Assessment to accompany the irrigation feasibility studies. The EU supported KILORWEMP (as part of its SAGCOT support programme), to strengthen the management of the Ramsar Site.

The combined effects of environmental assessments and better information availability; widespread land conflicts and the unavailability of land for large schemes; the results of the irrigation feasibility studies (which showed low rates of return on investment and limited technical viability) led to the expectations for the agriculture development plans in the valley to ebb. SAGCOT has since prioritized other clusters across the corridor, away from the valley. Likewise, a large BRN supported farm in Rufiji next to the KILORWEMP supported WMA has not yet materialized.

Meanwhile, agriculture investments by a myriad local SMEs have continued unabated, accompanied by sustained immigration flows. This has farther consolidated a strong **pattern of land conversion and settlement growth**

⁵³ See KVRIS IMP Foundation: Strategic Issues Paper. KILORWEMP; 2018.

⁵⁴

⁵⁵ This context is analysed in detail in the project's assessment reports for the KVRIS: Land Sector Diagnostic (2017); pastoralism Diagnostic (2017); KVRIS Strategic Issues Report (2018); IMP Spatial Framework Report (2018).

affecting the core valley area and the forests in the terraces. The current and near future ecosystem management trend include:

- 1) There are more information and awareness about the environmental values of the valley. There is more clarity on the environmental management priorities. This is the result of a set of assessments and associated consultations recapped above, to which KILORWEMP has contributed.
- 2) Along with a better information base, institutional foundations for environmental management are emerging:
 - a) KILORWEMP has contributed the slow consolidation of CBNRM models over village land, especially in forestry and wildlife management; identified the spatial priorities for wetland conservation, and initiated a concept and consultations for inter-sector coordination at the landscape scale.
 - b) MNRT has taken the lead in the consolidation of the core floodplain as a protected area under state authority.
 - c) MLHSD has initiated a process of land tenure regularisation which is expected to lead to lower conflicts and improved security of tenure.
 - d) The IWRM Plan for the Basin was completed in 2016. Implementation is at the infancy stage and constrained by resource availability.

While this set of initiatives contains essential ingredients to pursue sustainability, the capacity to execute the complex processes remains the major bottleneck and is at present playing a catch-up game with the unrelenting land pressure. This will be further accelerated with the improvement of access infrastructure and electrification underway.

GoT is launching in mid-2018 the Agriculture Sector Development Programme.

Besides the need to manage agriculture, settlement and infrastructure development, new flagship initiatives with major environmental and economic implications have emerged:

In 2017 GoT revived the Rufiji's Hydropower project at Stiegler's Gorge which has the potential of driving the development of the whole catchment. At the time of reporting, the status and design of this project are not known. It is, however, shaping the focus of attention of the whole public sector. It appears to drive the conservation of Kilombero Valley as a catchment protection measure. This is at best only partially relevant because the water tower is further upstream.

MNRT consented in 2017 to gas exploration in the core floodplain within KVRs. This was again under review in early 2018.

There is a very tangible risk that the momentum towards ecosystem management, now weak and nascent at best, may wane and give way to the (continued) prevalence of sectorial interests (e.g., conserve reserved land, support agriculture growth, support hydropower generation, etc.) at the cost of further reduction of ecosystem services and resilience. These can be countered by:

- 1) Watershed conservation in the upper Kilombero catchment

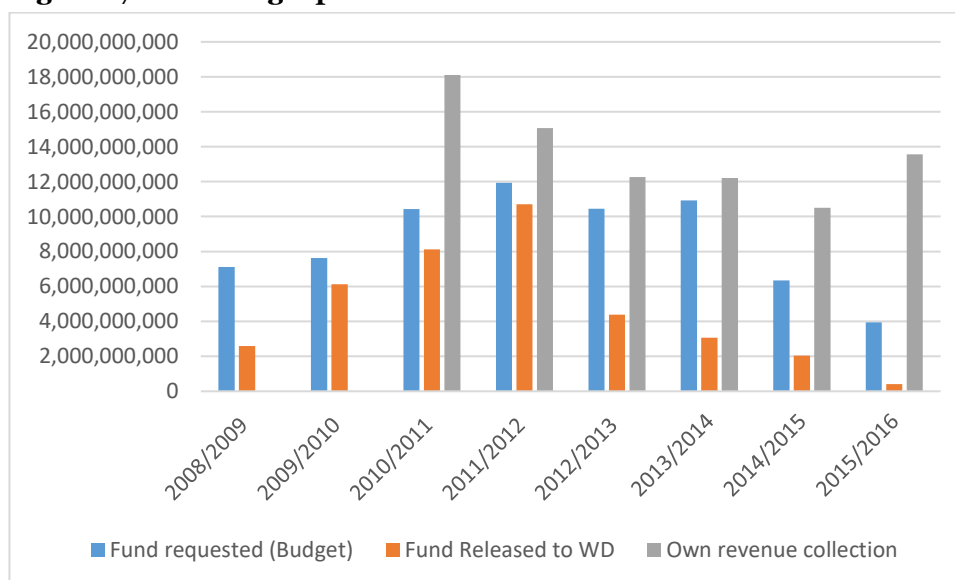
- 2) Preserving the hydrological features against changes due to agriculture, energy and infrastructure development
- 3) Preserving or rehabilitating vulnerable wetland areas, including the core area, habitat connectivity and the residual biodiversity hotspot at the valley's southern end.

2.2.3.2 Fiscal resources to sustain CBNRM and landscape plan

During the project lifespan, public financial resources allocated to the sector have shown mixed trends and a prevailing centralization drive particularly marked during the last two years.

MNRT has established two **parastatals**, TAWA and TFS, to improve efficiency and effectiveness in the sectors. The two agencies need to raise their revenue basis. This can counter CBNRM devolution. TFS' timber volumes and sale mechanisms may undermine the market for timber from VFRs. TAWA needs to maximize tourism hunting revenues (in a rapidly shrinking sector) rather than devolving hunting blocks to WMAs. It also gains a sharper focus on the consolidation and management of protected areas (GRs and GCAs) and law enforcement, rather than over environmental stewardship processes across landscapes.

Figure 17. WD budget performance 2008-2016⁵⁶.



The budget performance of WD had been mostly steadily declining over the years (see figure above). TAWA reported revenues for 28,802 M TzSh in 2016-2017, however this includes revenues previously accruing to the Tanzania Wildlife Protection Fund as well as WD. The traditional main source of revenue, tourism hunting, remains depressed. TFS collected 78,000 M TzSh in 2016-17⁵⁷.

Meanwhile, the two agencies have strengthened their presence within the landscape: TAWA has increased the staff allocated to the KVRs from 1 in 2013 to 22 in 2018. Their mandate and resource allocation are focused on the PA rather than the broader

⁵⁶ The United Republic of Tanzania. Ministry Of Natural Resources And Tourism. An Overview Of The Wildlife Sub Sector: Achievements, Challenges And Priorities For Financial Year 2016/17. A Paper Presented By Prof. Alexander Songorwa Director Of Wildlife At The 2016 Natural Resources Sector Review Meeting On 01 December, 2016 At The National College Of Tourism, Bustani Campus-Dar Es Salaam

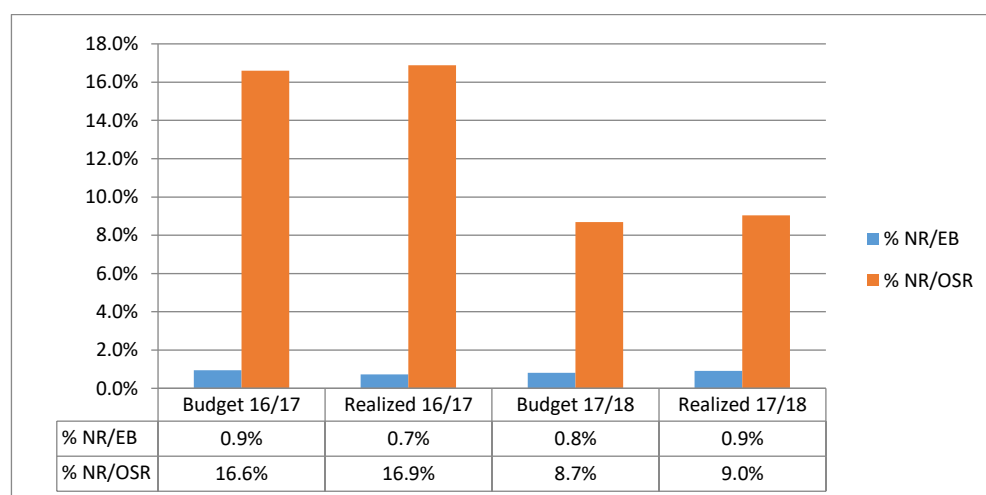
⁵⁷ Minister MNRT. Budget Speech, Parliament Session 2017-2018.

landscape. The IMP Foundation supported by KILORWEMP highlights opportunities to strengthen TAWA's role and budget allocation to landscape-level processes, along with LGA budgetary allocations yet to be realized (see IMP reports).

CBNRM remains mostly an aid-financed agenda. This is true nationally and locally. The LGAs within the landscape⁵⁸ realize Own-Source Revenue (OSR) mainly from crops (60% - 80%) supplemented by local revenue from business (service levy, business licenses), natural resources, livestock, etc.; OSR budget allocations and expenditure on natural resources are far below the percentage of own-source revenue generated from the sector; the same applies for livestock; local revenue from crops in particular, but also from natural resources is subsidizing other sectors and operations of the Councils. Budget allocations and expenditure from Inter-Governmental Transfers give the highest priority to social sectors (education, health, and water) and roads.

An example, Ulanga DC uses a small part of the local revenue from natural resources for the expenditure of NR departments and units (less than 1%). The major part is used to subsidize other sectors in a range of 7.9% to 15.7% (expenditure budget) and 8.1% to 16.2% of realized expenditure. This indicates considerable fiscal scope to sustain local revenue generated from the natural resources sector and to make priority investments in the sustainable management of the natural resource base, in particular, forestry.

Figure 18. Ulanga DC - Natural Resources % NR of Expenditure Budget vs Own-Source Revenue

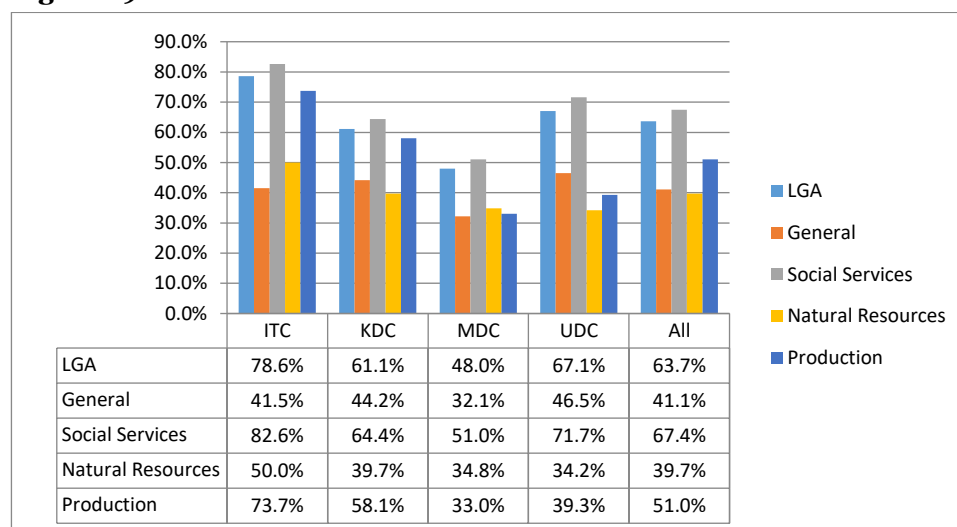


The percentage of staff position filled in natural resources and production is well below the average of the LGAs. There is increasingly less discretion of LGAs in the allocation of own-source revenue and development budget, but some fiscal space and discretion are maintained in OSR. LGAs can only partly compensate for the very low IGT transfers to natural resources from their own-source revenue, which constrains the capacity of the natural resources sector, and support to Community-Based Natural Resource Management, in particular, is severely constrained reducing the effectiveness and outcome of devolved natural resources management. The natural

⁵⁸ Rajmakers, F., Financial Sustainability Analysis of the Integrated Management Plan for the Kilombero Valley Ramsar Site. June 2018. KILORWEMP

resources and production budget performance are lower than other sectors, and development investments in the sectors are primarily used for infrastructure; investments in hardware are hardly complemented by adequate investments in organizational development, technical support as well as hard and soft skills development that are needed to manage and maintain the resources.

Figure 19. % Staff Positions Filled in LGAs across sectors.



While these overall fiscal trends are not encouraging, the IMP financial appraisal shows that the proposed fiscal measures for the IMP Essential Model are feasible based on limited reallocation of LGA revenues, facilitated by the start of CBFM revenues expected in the next dry season; and an allocation from GoT to subsidize the essential coordination costs. However, this is unlikely to be possible other than in a small way before FY 2019-2020 and therefore needs to be triggered by interim measures within the existing envelopes.

What seems more critical is mastering adequate political support to raise the profile of KVRS conservation in a coordinated fashion.

2.2.3.3 Political support to NRM sector and drivers of sector's medium-term evolution

A Ministerial Advisory Committee has been established by the Minister of NRT . This has just concluded its review and is about to table its recommendations to the Minister. Its review has also included evidence generated from TAWA/ KILORWEMP, as well of other agencies with key decision-making responsibilities over the catchment (e.g., TANESCO, Ministry of Water Resources, etc.).






The test case will be represented by the degree to which some momentum may be established in cross-sector harmonization, and this process may be sustained over time, with continuative leadership, monitoring and adapting of implementation. This case needs to win over the default tendencies, typical of complex situations everywhere, of narrow lens analysis, using the policy priority of the moment to pursue unrealistic sectorial interests, and optimistic single-agenda top-down decision making. Countering this default tendency is not easy anywhere and requires building gradually significant institutional capacities.

In the medium to long-term two benchmarks stand out for this growth:

- ⇒ The extent of growth in efficiency and accountability of public service decision making and execution
- ⇒ The growth in capacity to sustain over time key decisions and inter sector harmonization over the landscape beyond extemporary, fleeting initiatives, especially with regard to:
 - Large infrastructure (energy) development
 - Watershed conservation and environmental flows (Rufiji IWRMP)
 - Conservation of key wetland features including both the core valley area and other identified landscape hotspots
 - Building gradually an inclusive vision for the landscape and the basin recognized by stakeholders

In the longer term, the above trends place the future impact of the sector and of KILORWEMP's contribution within the context of the ongoing and future evolution of sector reform and growth. The following table summarises the contrasting drivers of political and governance change as observed in the project, which will contribute to shaping the evolution of the sector.





Table 11. Drivers of political influence over the sector.

Trend	Political / policy implementation drivers	Potential effects on IMP⁵⁹	Potential effects on CBNRM
	Upward accountability of government services and centralisation of fiscal revenues	<ul style="list-style-type: none"> • Higher efficiency and effectiveness of GoT sector services / parastatals • Lower incentives towards devolution and inclusive landscape planning • More infrastructure and flagship economic development projects • Lower discretionary resources of LGAs • Lower capacity to support devolved NRM processes 	<ul style="list-style-type: none"> • Lower priority to downward accountability, weak momentum in CBNRM effectiveness growth • Reserved Land favoured over WMAs and VFRs • Sagging policy reform drive
	Conservation agencies prioritise own effectiveness, law enforcement and fiscal sustainability.	<ul style="list-style-type: none"> • Better managed government reserves and vulnerable areas within them • Growing tensions between PAs and villages • Higher probability of top down decision making 	<ul style="list-style-type: none"> • Delayed corrections to inefficiencies in timber and hunting markets affecting CBNRM • Lower priority to strengthening, scaling up and adapting CBNRM
	Political diversity grows in local government⁶⁰	<ul style="list-style-type: none"> • Higher demands for inclusive regional planning 	<ul style="list-style-type: none"> • Risk of politicization of CBNRM resource management
	Land access issues dominate the political arena⁶¹	<ul style="list-style-type: none"> • Continued pressure to exclude land from reserves and to extend farming 	<ul style="list-style-type: none"> • Risk of weakening momentum to control WMA and VFR encroachment
	GoT strengthens regularisation of land tenure and mitigation of land conflicts on village land and around protected areas	<ul style="list-style-type: none"> • Decreased land conflicts • Uncertain impact on landscape fragmentation (possible loss of habitat due to household titling; theoretically enabling land set aside via acquisition later; possible mitigation of immigration trends). 	<ul style="list-style-type: none"> • Higher security of tenure for existing CBNRM units • Lower opportunities for CBNRM scaling up across landscape

⁵⁹ We refer to the concept and priority actions proposed in the IMP Foundation.

⁶⁰ The local government elections of November 2014 generated a very significant change in village government, including both a growth in political diversity and therefore a change in office bearers. A large number of VEOs and WEOs have also turned over, affecting some of the field processes, including institutional memory of the KGCA related processes.

⁶¹ The KGCA consolidation and land conflicts were regularly covered in the Parliamentary debates. The presidential and parliamentary elections held in October 2015 required pausing local consultations on land and KGCA issues, because political campaigns took place and touched land issues.

Trend	Political / policy implementation drivers	Potential effects on IMP⁵⁹	Potential effects on CBNRM
	Large scale infrastructure projects (transport, energy) are political priorities.	<ul style="list-style-type: none"> • More large scale infrastructure development • Increased regional economic development • Increased environmental pressure and land use intensification • Increased tendency towards top-down decision making • Lower support to adaptive management and landscape level decision making 	
	General devolution and DeNRM sector reform	<ul style="list-style-type: none"> • Earlier wetland framework ideas and pilot experiences evaporate and need a new foundation 	<ul style="list-style-type: none"> • Sagging support to maintaining and scaling up CBNRM areas and to strengthening incentive mechanisms • Continued dependency on external financing
	Establishment of a wetland specific NRM policy and regulatory framework	<ul style="list-style-type: none"> • Wetland conservation agenda becomes absorbed in Protected Area conservation • Lack of wetland stewardship with low profile of VPO on the ground and in intersectoral coordination • Loss of wetland habitats and ecosystem services • Ring fencing of reserved land and lower momentum in reforms towards inclusive environmental management 	<ul style="list-style-type: none"> • Sagging support to coordinated landscape scale CBNRM establishment
	Momentum towards large scale agriculture investment schemes in Kilombero Valley⁶²	<ul style="list-style-type: none"> • Risk of continued anarchic agriculture development • Agriculture intensification progress depends on effectiveness of agriculture sector plans in support to SMEs 	

⁶² Kilombero Valley is no longer a priority cluster for SAGCOT

2.2.4 Integration of Transversal Themes in the intervention strategy

Item	Contribution	EFFECTIVENESS RATING
Environment	Core project domain	HIGH
Gender	Very limited application of gender targeting beyond monitoring and reviewing memberships of CBOs. One gender related monitoring training shared with CBOs and LGAs. Project too overstretched and mainstreamed to deal with this domain competently.	LOW
Social economy	The entire livelihood development component of the project targets social economy models and institutions (CBNRM/CBOs); a new market oriented model has been appraised for the forestry sector through a PPP scheme; landscape assessments and management measures have focussed on the integration of semi-subsistence and traditional livelihood (especially fisheries, and pastoralism) in plans	HIGH

2.2.5 M&E, backstopping activities and audits.

Item	Contribution	Limitations
Internal M&E	<ul style="list-style-type: none"> Semi-annual and annual result monitoring Annual district and project progress review workshops Annual CBNRM effectiveness survey Quarterly field monitoring by DPTs JLPC field visits 	<ul style="list-style-type: none"> Consistency in data collection routine requires continued supervision Critical progress review requires proactive external facilitation Financial activity planning by LGAs sometime disjointed from progress review
Baseline study	<ul style="list-style-type: none"> Adapting the result framework and introduced ToC Confirmed R1 R2 targets 	<ul style="list-style-type: none"> Did not deal with R3 component which was under negotiation
MTR	<ul style="list-style-type: none"> Finetuning of result framework Revision of R1R2 targets 	<ul style="list-style-type: none"> Not very strategic in R3
Backstopping	<ul style="list-style-type: none"> 4 EST Advisory missions OPS, Legal and GP missions HQ procurement support The input to MTR and MNRT Task Force meeting Input to EU IMDA negotiation ResRep's backstopping and JLPC reviews 	<ul style="list-style-type: none"> Advisory missions' recommendations are not officially formalized towards counterparts and miss opportunity of representing institutional feedback Backstopping mission schedule lapsed during 2nd half
Audits	<ul style="list-style-type: none"> 4 annual external audits 1 audit from BEL Court of Auditors Final audit pending No findings thus far 	

3 Sustainability

3.1.1 Economic and financial viability of the results

During the phase-out stage, the project carried out a detailed analysis ⁶³ of financial sustainability of the project results and in particular of the CBNRM units, of the LGA support to them and of the IMP implementation. The key findings are summarised here for CBNRM. For the IMP we refer to the ad-hoc financial sustainability study.

Table 12. CBNRM units' sustainability.

Strengths	Risks	Measures
WILDLIFE MANAGEMENT AREAS		
<ul style="list-style-type: none"> Ongoing negotiation for sport fishing Class B hunting block 	<ul style="list-style-type: none"> Current low or no revenue base Revenue depends mainly on fines to offenses Fragile land use and habitats Compatibility of sport fishing and conflicts with BMUs LGAs expect to obtain revenues from WMA but finance capacity support only occasionally 	<ul style="list-style-type: none"> Careful negotiations and planning Exploring possible link to operations of adjacent SGR block Increased revenue retention by WMA from 45% to 75% (Regulatory revision)⁶⁴ LGA finance WMA support Close monitoring and support
VILLAGE FORESTS RESERVES		
<ul style="list-style-type: none"> Very significant revenue projections for all units except Libenanga (small) No royalties due Ready market Tested timber sales methods adopted 	<ul style="list-style-type: none"> Competition in market from timber supplied from state reserves or poached Lack of compliance with FMPs and abuse in sales Land encroachment 	<ul style="list-style-type: none"> Early sales to establish momentum Revenue sharing scheme with LGA, Mjumita and MCDI to enable continued support LGA needs to plow back revenues into monitoring and support
BEACH MANAGEMENT UNITS		
<ul style="list-style-type: none"> Fisheries is already a viable economic activity Fisheries operations are not threatened by effort as much as by changes in the regulatory regime of the KGCA of the river hydrology 	<ul style="list-style-type: none"> Sustainability of BMU as an institution Land use choices within Iluma WMA 	<ul style="list-style-type: none"> Continue support in revenue collection/permits from LGA Maintain BMU functions to essential Enable continued fishing in KGCA Seek compatibility of sport fishing with BMUs through careful zoning and negotiations

⁶³

KVRS Integrated Management Plan. Financial sustainability Study. KILORWEMP. 2018

⁶⁴

A revision in this direction of the 2012 regulations has been mooted but has not been delivered yet.

3.1.2 Ownership of the intervention by target groups after external support.

Item	Ownership status	Required
WMAs	<ul style="list-style-type: none"> User Rights conferred Internal governance body legally established 	
VNRC	<ul style="list-style-type: none"> CBFM delegation completed for all sites except one 	<ul style="list-style-type: none"> Obtain hammer for Uhanila VFR (KDC)
BMUs	<ul style="list-style-type: none"> All preparatory steps completed 	<ul style="list-style-type: none"> Obtain registration from MLF (LGAs)
KVRS IMP	<ul style="list-style-type: none"> Institutional option identified 	<ul style="list-style-type: none"> Confirm and give mandate to interdistrict committee (LGAs/VPO/MNRT/RAS)

3.1.3 Policy support and interaction between intervention and policy level.

Project Activity	Policy level	Issue/Contribution	Outcome
Support to wetland regulations	WD VPO	Harmonization of MNRT and VPO sponsored regulations: consultations and confirmation of VPO lead role	VPO assumed lead. Status of wetland regulations unclear, possibly paused.
Support to corridor regulations	WD	Drafting of regulations: Technical review inputs	MNRT gazetted regulations
KGCA Consolidation	MNRT (Legal, TAWA, WD)	Definition of the legal framework for KGCA consolidation: participated in the appraisal. Supported stakeholder consultation (regional workshop).	It remained difficult to reconcile legal perspectives and find a compromise on standards bridging donor process requirements, Inter Ministerial collaboration and counterparts' expectations
Inter-Ministerial Coordination MNRT-MLHSD	MNRT (PS) MLHSD (PS)	Endorsed Inter-ministerial MoU	Implementation of overall coordination after good start waned due to diverging operational priorities and coordination issues. Funding of MNRT consolidation enabled.
IMP Foundation	TAWA VPO MLHSD	Support to inter-agency consultative events and appraisals.	IMP Foundation delivered. Some diverging priorities in the final phase (KGCA consolidation issue) and weak momentum in interagency consultations. Availability of VPO was difficult.
PPP feasibility scheme	MNRT (FDB)	Review of royalties' scheme: participated in consultations.	Submission to FDB. Response not yet delivered. PPP paused.

3.1.4 Contributions to institutional and management capacity.

The project conducted a capacity building needs assessment in its early phase⁶⁵. This led to the formulation of a Capacity Building Plan⁶⁶. The plan was mostly OD oriented rather than training and skills development oriented. It aims specifically at supporting change and development processes aligned with the project's ToC. The implementation was co-funded with the parallel BTC Scholarship project. The following table summarises the deliverables. The assessment of the performance is through the project's ToC rather than on an input/output basis.

Figure 20. Overall structure of the capacity building plan.

.PACKAGE 1: MNRT capacity for wetland landscape conservation.	Team development
	Landscape ecological management approaches
	Policy formulation skills
PACKAGE 2: RAS M&E and stakeholder engagement capacity	CBNRM monitoring
	Stakeholder coordination and conflict resolution
PACKAGE: LGA Facilitation and empowering capacity	LGA leadership role in CBNRM
	SCEWE CBNRM governance support capacity
	LGA management
	DFT empowerment and facilitation skills
Package 4: LGA Technical capacities	Fisheries mgt in small lakes (RDC)
	Fisheries mgt in river
	PFM inventory skills
	Wetland inventory preparation
PACKAGE 5: Business development skills	Forestry enterprise development
	DFT business support capacity
	WMA CBO business skills
Package 6: Strengthen village leadership	WEO/VEO/VNRC leadership skills
	VGSs
Package 7 Project Team development	Mentoring , team management and communication skills
Package 8. CBFM phase out	Timber sales
	VNRC governance

⁶⁵ Capacity Building and training needs assessment. KILORWEMP. 2013.
⁶⁶ Capacity Building Plan, KILORWEMP, 2013.

Table 13. Capacity Building Plan status of delivery.

MOD.	TITLE	OUTCOME SOUGHT	CONTENT	METHOD	TARGETS	STATUS	FUNDING
PACKAGE 1: MNRT capacity for landscape scale conservation.							
1a	Team development	MNRT Project Task Force is engaged and leading processes in landscape planning and policy review/formulation; develops common landscape vision; jointly strategizes, gets organized amongst the units and builds trust.	GCA GMP and IMP preparation process	Series of retreats	MNRT TF members, RAS STAFF	COMPLETED 6 Task Force events	KILORWEMP
1b	Landscape ecological management approaches	MNRT and RAS officials gain broader exposure to options for landscape management relevant to KQRS and identify and pursue suitable options. They lead more effectively and proactively stakeholder based processes.	Best international practice in the management of complex landscapes with conservation values.	Training session x1 International Exposure visit x1 National exposure visits x 2	MNRT TF and other senior officials RAS Staff	Embedded in IMP preparation process and consultations. Compressed by delayed approval of IMP tasks. International visit dropped.	KILORWEMP
1c	Policy formulation skills	Increased capacity to avail of a range of policy tools and approaches complementary to regulatory approaches and already experimented to deal with land use conflicts and complex multi-stakeholder interests.	Overview of Environmental policy tools: Regulatory Approaches; Market Based Instruments and Fiscal Mechanisms; Cooperative Management Agreements; Information Disclosure; Voluntary Stewardship and Corporate Environmental Governance	Training sessions x 1	MNRT TF and other senior officials. RAS Staff	Dropped because policy formulation task dropped from workplan	KILORWEMP

MOD.	TITLE	OUTCOME SOUGHT	CONTENT	METHOD	TARGETS	STATUS	FUNDING
1d	Legal drafting skills	Increased capacity of legal staff of MNRT to draft legal texts as required for formulation of policy documents	Strengthen the capacity of the MNRT Legal Team to draft legislative texts with regards to formulation of policy and regulations. The identified capacity gap support MNRT Legal Team currently drafting two regulations with regards to Game Controlled Areas and Buffer Zones.	Training sessions x 1	Staff of MNRT Legal Unit (2)	COMPLETED	SCHOLARSHIP
PACKAGE 2: to build capacity of MNRT and RS staff to respond to concerns and request for support from the LGA levels, Civil Society as well as Private sector							
2a	CBNRM monitoring	To understand, support and develop a common CBNRM approach into own thinking as well as development plans and support to the LGA level. To support the mainstreaming of the SWM guidelines. To monitor and evaluate CBNRM	Common CBNRM approach. CBNRM integration into LGA development plans, Strategic planning, CBNRM M&E system and indicators. Sustainable Wetland Management	AL Plan 12 months	AAS EPS and RNRO, DPT	Cancelled for lack of performance of contractor ⁶⁷	SCHOLARSHIP
2b	Stakeholder coordination and conflict resolution	To increase capacity to support stakeholder dialogue and prevent and mitigate NRM related conflicts	Strategic planning, Conflict prevention and resolution skills development, Skills in multi-stakeholder platform management, Skills in trust building, and negotiation. communication skills. Facilitation skills	Training sessions x 5	AAS EPS and RNRO, MNRT TF members	AS ABOVE	SCHOLARSHIP
PACKAGE3: LGA Facilitation and empowering capacity							

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With failure of the service contract most tasks foreseen for this package were absorbed in the LGA workplans (i.e., monitoring visits by SCEWE and DFTs; exchange visits; DFT annual review workshops)

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MOD.	TITLE	OUTCOME SOUGHT	CONTENT	METHOD	TARGETS	STATUS	FUNDING
3a	LGA leadership role in CBNRM	Vision development on common approach CBNRM	Benefits of each of the CBNRM units, business concepts and revenue collection	Workshops of 2 days per topic, theory and exercise to practice	DED, HoDs	See package 2a.	SCHOLARSHIP
3b	SCEWE CBNRM governance support capacity	To understand the concept of CBNRM and the role for them to play in leadership and accountability:	CBNRM concepts and systems. Roles and responsibilities for councillors in CBNRM	AL cycle 18 months	Standing committee. Council chairperson	See package 2a.	SCHOLARSHIP
3c	LGA management	To enhance utilization/application of the LGA management systems	Epicor, Plan Rep, OPRAS, Procurement regulations and other tools	Training session	DPLO, DT, HRO, DIA	Completed	KILORW EMP
3d	DFT empowerment and facilitation skills	Module consisting of 5 sub: 1. CBNRM support 2. DFT team management 3. Conflict Management 4. Support to lower levels 5. Dialogue skills	Benefits of each of the CBNRM units, business concepts and revenue collection. Facilitation; Team building Communication; Coordination; Trust building; Stakeholder management Negotiation, communication, coordination. Conflict management and resolution skills in boundary disputes.	AL cycle over 18 months:	VLUM team. WMA team BMU team PFM team	See package 2a.	SCHOLARSHIP
Package 4: LGA Technical capacities							
4a	Fisheries mgt in small lakes (RDC)	To adapt fisheries mgt system to small lake ecology and fisheries and to develop action plan and M&E system for BMU support	Review of knowledge of small lake fish ecology and management implications. Adaptation of BMU guidelines and systems. Preparation of extension action plan and M&E framework. Caching and review	AL cycle 18 months	RDC fisheries staff	Phase 1 delivered. Later cancelled due to unavailability of partner agency.	SCHOLARSHIP/ IRD ⁶⁸

⁶⁸ BTC/IRD co-funding MoU. The co-funding nature did not allow normal service contract enforcement when partner withdrew.

MOD.	TITLE	OUTCOME SOUGHT	CONTENT	METHOD	TARGETS	STATUS	FUNDING
4b	Fisheries mgt in river	To adapt fisheries mgt system to riverine ecology and fisheries and to develop action plan and M&E system for BMU support	Review of knowledge of riverine fish ecology and management implications. Adaptation of BMU guidelines and systems. Preparation of extension action plan and M&E framework. Caching and review	AL cycle 18 months	UDC KDC fisheries staff	Foreseen within IMP preparation workplan. Dropped due to late approval of IMP workplan	KILORWEMP
4c	PFM inventory skills	To adopt system and develop capacity to perform preparation of forest inventory and harvesting plan	Forest inventory method and computation of harvesting plan	Preparation of tools. Training session	DFOs x DCs	Completed in 4 phases: (I) exposure of DFOs to KVTC inventory during PPP feasibility study; (II) training session at SUA); III) preparation of FMPs of VFRs; QC with SUA.	SCHOLARSHIP + KILORWEMP
4d	Wetland inventory preparation	To develop capacity to produce inventory of floodplain wetland sites according to SWM guidelines	SWM Inventory method	Training session and field visits	DFT members	Task absorbed in KQRS IMP tasks.	KILORWEMP
PACKAGE 5: Business development skills							

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MOD.	TITLE	OUTCOME SOUGHT	CONTENT	METHOD	TARGETS	STATUS	FUNDING
5b	DFT business support capacity	Get insight into business dynamics to be able to properly advice the CNRM units (via the WEOs, and VEOs) on market driven approach to business development	Value chain concept and development approach. Market dynamics in selected NRM related enterprises (hunting, timber, honey, fisheries, livestock). concepts of business planning. Mechanisms for value chain stakeholder platforms and dialogue	2 x training sessions	HoD, DGO, Trade Officer, DLO, Economist, HoD, DFOs, CBO leaders, DPLO, DFO, DBO, legal, DCDO, cooperative	COMPLETED	SCHOLARSHIP+ KILORWEMP
5d	WMA CBO business PLANNING skills	Acquire basic business skills and systems to run WMA enterprise by preparing tourism hinting business plan	Basic accounting, management and business skills. Hunting regulations and business management. Business Plan preparation and review.	Training sessions and action learning. Exchange visit	WMA CBO Boards LGA staff	COMPLETED	SCHOLARSHIP+ KILORWEMP
Package 6: Strengthen village leadership							
6a	WEO/VEO/VNRC leadership skills	Strengthen capacity of VNRC, , DEO WEO and VEO to fulfil their role in CBNRM activities.	Skills in record keeping; basic management skills; statutory functions related to VLUP, PFM, BMU and WMA regulations and systems; negotiation and contract management skills; community mobilization and empowerment skills; CBRNM governance and leadership. Committee functioning. Functioning of LGAs.	Extensions services delivered by DFT members based on ad hoc action plans developed during AL session of DFT (packages 3 and 4).	All CBO targets	Completed through several iterative LGA CBNRM activities	KILORWEMP
6b	VGSs training	Build VGS basic skills to support WMAs and VFRs	VGS skills	Training session at Lukiyu College	VGS of all CBO targets	Completed	KILO RWE
Package 7: Team development							
7a	Change management	Develop understanding of change management and institutional development	Change management principles and methods	Trainig session at ACDC	Team members (DPC, NPC, NTAs)	Completed	KILORW EMP
8. CBFM phase out plan							

MOD.	TITLE	OUTCOME SOUGHT	CONTENT	METHOD	TARGETS	STATUS	FUNDING
8a	Public accountability and governance system	to build capacity within village institutions on good governance and accountability practices and create effective linkages with other local networking institutions relevant to the operations of VFRs within the purviews of the Community-based Forestry Management (CBFM) framework in Tanzania.	1. Strengthen the link between the villages targeted with CBFM by ILORWEMP and the national associations of CBFM, Mjumita. (2).Perform the village dashboard tool in five VFRs as a process designed to assist villages engaged in participatory forest management (PFM) to learn the best practices in the village forest governance, identify obstacles to good governance, and establish solutions against each obstacle on their own.	Action learning and survey. Mjumita score card system	VNRCs x 4 LGAs	COMPLETED	KILORWEMP
8b	Timber sales capacity building	Build capacity within village institutions on appropriate timber trading, marketing and harvesting operations	i) To facilitate effective and transparent implementation of the Harvesting plans; (ii) To establish understandable timber sales system an appropriate measurements; (iii) To propose/promote market linkage of timber/logs produced from the Village Land Forest Reserves (VLFRs); (iv) To support and build capacity of the Village Council and VNRC on timber harvesting, trading and marketing	Action Learning and Training	VNRCs x 4 LGAs	COMPLETED	KILORWEMP

4 Learning

4.1 Lessons Learned

Lesson summary	Page
1) Why CBNRM establishment takes long time	63
2) Adapting BMU guidelines to riverine conditions	64
3) Capacity building approach to CBNRM	75
4) Lessons from Ruaha on pitfalls and opportunities in landscape management	84

4.2 Recommendations

Recommended follow-on actions	References	Target audience
Operational exit plans		
1) Extend support to WMAs and VNRCs in business establishment – support revenue sharing schemes for cost recovery	CBFM Final District Review Workshops, June 2018	LGAs MCDI Mjumita CWMAC
2) Allocate own resources to CBNRM support (monitoring and capacity development)	IMP Financial Sustainability Appraisal	LGAs
3) IMP Foundation – Essential Plan: establish a committee with 4 LGAs, MNRT (TAWA), VPO, MHLSSD, RBO. Pursue fiscal measures. Pursue and monitor priority action plans already identified. Sustain stakeholder dialogue on vision and harmonization. Engage other actors: NGOs, private sector. Prepare funding for phase III.	IMP Foundation Plan	MNRT VPO LGAs
Technical standards		
4) Adapt guidelines for BMUs to riverine capture fisheries	BMU technical reports	MFL TAFIRI
Policy level		
5) Review WMA Regulations: streamline establishment		WD

Recommended follow-on actions	References	Target audience
requirements and increase revenue retained by WMAs		
6) Review Forestry PPP plan with KVTC and enable conducive royalties' regime	PPP Concept Note, 2016 KVTC Submission, 2017	FDB
7) Review evidence for mesh size and effort restrictions in riverine capture fisheries	KVRS Fisheries Diagnostic Repot, 2017 Lake Zombe IRD Final Report, 2016	
8) Review lessons learned from KILORWEMP and identify policy measures to strengthen wetland and landscape management in absence of wetland policy and specific statutory tools for landscape management.	IMP Institutional Options Assessment Study.	MNRT VPO
Aid management and approaches		
9) Seek nimbler subgrating procedures	Final report	ENABEL
10) Review approach and lessons learned for devolution	Capacity Building Plan Final Report	ENABEL
11) Review approach and lessons learned for capacity building	Capacity Building Plan Final Report	ENABEL

5 List of reports, tools and products

5.1 Strategy and M&E Reports

	AUTHORS	TITLE	DATE
1	Nautilus Consulting.	Report of the project baseline study. KILORWEMP. BTC/MNRT.	September 2013.
2	KILORWEMP PIU	Baseline Inventory of CBNRM sites as at January 2013 in the Districts of Kilombero, Ulanga and Rufiji	March 2014
3	EmJee Consult.	Capacity Building and Training Needs Assessment. KILORWEMP & Scholarship Project. BTC.	June 2014
6	KILORWEMP PIU	Capacity Building Plan. MNRT/BTC KILORWEMP and BTC Scholarship Project	January 2015
8	Prospect	Report of the KILORWEMP Mid Term Review	January 2016
9	Lemoyan J. S.	CGMETT SURVEY REPORT 2015	March 2016
10	Lemoyan J. S.	CGMETT SURVEY REPORT 2016	March 2017
11	Lemoyan J. S.	CGMETT SURVEY REPORT 2017	March 2018
13	KILORWEMP PIU (M&EO)	Monitoring and Evaluation Manual	January 2016
14	KILORWEMP PIU (M&EO)	Report of the Final District Workshops for Review of CBNRM achievements	June 2018

5.2 Annual Result Reports

	AUTHORS	TITLE	DATE
1	KILORWEMP PIU	Annual Result Reports 2013	February 2014
2	KILORWEMP PIU	Annual Result Reports 2014	February 2015
3	KILORWEMP PIU	Annual Result Reports 2015	February 2016
4	KILORWEMP PIU	Annual Result Reports 2016	February 2017
5	KILORWEMP PIU	Final Result Report – 2 volumes	July 2018

5.3 Minutes of JLPC meetings

	AUTHORS	TITLE	DATE
1		Minutes JLPC-	15 February 2013
2		Minutes JLPC-1	17-18 October 2013
3		Minutes JLPC-2	3 March 2014
4		Minutes JLPC-3	11-12 September 2014

5	Minutes JLPC-4	19-20 February 2015
6	Minutes JLPC-5	18 September 2015
7	Minutes JLPC ad-hoc (MTR review)	20 November 2015
8	Minutes JLPC-6	3-4 March 2016
9	Minutes JLPC-7	1-2 September 2016
10	Minutes JLPC-8	19 December 2016
11	Minutes JLPC-9	24 February 2017
12	Minutes JLPC-10	31 August 2017
13	Minutes JLPC-11	4 November 2017
14	Minutes JLPC-12	24 July 2017

5.4 Annual workplans

	AUTHORS	TITLE	DATE
1	KILORWEMP	Project workplan 2013	January 2013
2	KILORWEMP	Project workplan 2014	January 2014
3	KILORWEMP	Project workplan 2015	January 2015
4	KILORWEMP	Project workplan 2016	January 2016
5	KILORWEMP	Project workplan 2017	January 2017

5.5 Forestry and PPP reports

	AUTHORS	TITLE	DATE
1	KILORWEMP PIU	Workshop on a management model for participatory forest management. Review of the feasibility study for a proposed forestry scheme on KVTC land for community benefit	27 October 2014
2	Unique Forest and Land Use Gmbh	Feasibility Study for a Management Model of Participatory Forest Management – Final Report. KILORWEMP MNRT/BTC in partnership with The Finnish Ministry of Foreign Affairs; Kilombero Valley Teak Company; and the National Forestry & Beekeeping Programme II, MNRT	January 2015
3	Unique Forest and Land Use Gmbh	Review of Current Forest Inventory and Forest Management Planning Methodologies for Natural Forests in Tanzania	February 2015
3	KILORWEMP PIU	Workshop on Feasibility Study for A Management Model for Participatory Forest Management	17 March 2015

4	Faculty of Forestry and Nature Conservation, Sokoine University of Agriculture	Training workshop for TFS staff on forest inventory data analysis and preparation of management/harvesting plan	September 2015
5	Daconto, G.	Concept Paper on a Private-Public Partnership in forestry with Kilombero Valley Teak Company	September 2015
6	Nshare J.	Review of CBFM activities	2017
7	Nshare J.	Summary of Forestry activities	2018
8	Rufiji District Council	Sustainable Harvesting Plan for MTANZAMSONA VLFR (2015-2024)	March 2015
9	Ulanga District Council	Kimbiru Forest Reserve Harvesting Plan for 2016-202	May 2016
10	Ulanga District Council	Kimbiru General Management Plan for 2016-202	May 2016
11	Ulanga District Council	Luwuya Forest Reserve Harvesting Plan for 2016-202	May 2016
12	Ulanga District Council	Luwuya General Management Plan for 2016-202	May 2016
13	Ulanga District Council	Sustainable General Management Plan for CHOKOACHOKO VLFR (2016-2021)	November 2016
14	Ulanga District Council	CHOKOACHOKO Forest Reserve Harvesting Plan for (2016-2021)	December 2016
15	Kilombero District Council	Sustainable Harvesting Plan for UHANILA VLFR (2016-2021)	November 2016
16	Mpingo Conservation and Development Initiative MCDI	Capacity Building to village insitutions on timber trade, marketing and harvesting operations	July 2018
17	Mtandao wa Jamii wa Usimamizi wa Misitu Tanzania-MJUMITA	Village Institutions Forest Governance Capacity Building and Partnership	June 2018

5.6 WMA Reports

	AUTHORS	TITLE	DATE
1	Rufiji District Council	Resource Management Zone Plan JUHIWANGUMWA WMA 2015-2020	September 2015

2	Kilombero District Council	Report on Reviewing ILUMA Resource Management Zone Plan 2015-2012	February 2015
3	Dynarch Consulting Services LTD	JUHIWANGUMWA WMA Management Area Conservation Business Plan 2017-2021	January 2017
4	Dynarch Consulting Services LTD	ILUMA WMA Management Area Conservation Business Plan 2017-2021	February 2017

5.7 Fisheries Reports

	AUTHORS	TITLE	DATE
2	IRD	Inception Meeting report Rufiji District Fisheries Team	November 2015
3	IRD	Brainstorm meeting report Rufiji District Fisheries Team and BMU members	January 2016

5.8 Landscape wetland management reports and outputs

	AUTHORS	TITLE	DATE
KVRS Environmental Profile			
1	Games I.	KVRS Land Use Diagnostic Study (2 volumes)	2017
2	Kolding, J., Mombo, F., Temu, B., Nyanghura, Q. and Cunliffe, R	KVRS Fisheries Diagnostic Study	2017
3	Rob Cunliffe, Felister Mombo, Beatus Temu and Qambemeda Nyanghura	KVRS Pastoralism Diagnostic Study	2017
4	Games, I	Ngapemba Wetlands Reconnaissance Study	2017
KGCA consolidation			
6	Games, I.	KGCA Buffer zone reconnaissance Study	2017
7	Daconto G. and Games I.	KGCA Consolidation Options Study	2017
8	Majamba et al.	KGCA Consolidation Legal Note	2017
9	Nielsen R. and Rugemeleza N.	KGCA Consolidation legal review study	2017
10	KILORWEMP PIU	Report of the TAWA workshop to review the KGCA consolidation options	10 September 2016
11	-	Report of The Regional Stakeholders Workshop on The Consolidation of The Kilombero Game Controlled Area, Mikumi National Park, 20 October 2016	2016

12	-	Report of the consultative workshop on the legal review study of the consolidation of the KGCA. September 2017	2017
IMP/GMP Scoping			
13	Games I.	Scoping for Integrated Management Plan and General Management Plan	2017
IMP Foundation			
14	KILORWEMP	IMP Foundation Plan	2018
15	Raijmakers, F.	IMP Financial Sustainability Appraisal	2018
16	Games, I.	IMP Strategic Issues Study	2018
17	Lukumbuzya, K. and Daconto G.	IMP Institutional Options Study	2018
IMP components			
18	KILORWEMP	Puku Conservation Action Plan	2018
19	KILORWEMP	Ngapemba Conservation Area Appraisal Report	2018
20	KILORWEMP	Ruipa East Wildlife Corridor Plan	2018
22	KILORWEMP	Vulnerable Wetlands Appraisal Study	2018
23	Armbuster, T.	Livestock Sector Investment Appraisal	2018
Land sector coordination			
24	KILORWEMP PIU	Review of DLUPFs submitted to MLHSD	2016
25	KILORWEMP PIU	Inter-Ministerial Coordination Framework MNRT-MHLSSD	2016
Task Force meetings			
26	KILORWEMP PIU	Minutes of the Task Force meeting on strategic planning for the landscape component	Morogoro, 24-25 October 2013
27	KILORWEMP PIU	Minutes of the 1st MNRT TF meeting	2 October 2014
28	KILORWEMP PIU	Minutes of 2 nd MNRT TF meeting	25 January 2015
29	KILORWEMP PIU	Minutes of 3 rd MNRT TF meeting	23 May 2015
30	KILORWEMP PIU	Minutes of 4 th MNRT TF meeting	3 October 2016
31	KILORWEMP PIU	Minutes of 5 th MNRT TF meeting	4 February 2016
32	KILORWEMP PIU	Minutes of 6 th MNRT TF meeting	17 February 2016
33	KILORWEMP PIU	Report of the 1 st meeting of the IMP Foundation Task Force	December 2017
34	KILORWEMP PIU	Report of the 2nd meeting of the IMP Foundation Task Force	10 May 2018

Stakeholder consultations			
35	-	Report of the District Stakeholders' Workshops On The Kilombero Valley Ramsar Site: Malinyi District Council 14 December, 2016 Ulanga District Council: 15 December 2016 Kilombero District Council: 17 December 2016	2016
36	-	Workshop on Biodiversity Conservation, use of Natural resources and Livelihood in Kilombero Valley Ramsar Site. Morogoro - 31 January 2017	2017
37	-	Report of consultative events for the preparation of the KVRIS IMP	2018
38		Report of the final project workshop	25 June 2018
Databases & Imagery			
39		GIS database and metadata	
40		Socioeconomic survey database: household survey dataset	
41		Imagery – aerial survey	
42		Imagery – classified satellite images	
Scientific papers			
43	Leemhuis, Constanze, Frank Thonfeld, Kristian Näschen, Stefanie Steinbach, Javier Muro, Adrian Strauch, Ander López, Giuseppe Daconto, Ian Games, and Bernd Diekkrüger.	"Sustainability in the food-water-ecosystem nexus: the role of land use and land cover change for water resources and ecosystems in the Kilombero Wetland, Tanzania." Sustainability 9, no. 9 (2017): 1513. . http://www.mdpi.com/2071-1050/9/9/1513/htm	2017

5.9 List of Internal consultative reports produced

	AUTHORS	TITLE	DATE
1	KILORWEMP PIU	Internal discussion note on wetland regulations	April 2014
2	KILORWEMP PIU	Minutes of the Consultative Meeting BTC-MNRT on BTC-EU Agreement for KILORWEMP	Kibaha, 6 May 2014

5.10 List of public information materials produced

	AUTHORS	TITLE	DATE
		Project brochure	2013
NEWSLETTERS			

1	KILORWEMP PIU	Newsletter #1: From local to landscape	April 2015
2	KILORWEMP PIU	Newsletter #2: Community based forestry work and PPP (English and Swahili versions)	March 2015
3	KILORWEMP PIU	Newsletter #3: Where are we with CBNRM and devolution?	April 2015
4	KILORWEMP PIU	Newsletter #4: Birth of Iluma Wildlife Management Area (English and Swahili versions)	September 2015
5	KILORWEMP PIU	Newsletter #5: Introduction of mobile data capture for wetland field surveys	January 2017
6	KILORWEMP PIU	Newsletter #6: Land use change in Kilombero Valley	February 2017
7	KILORWEMP PIU	Newsletter #7: Fisheries in Kilombero Valley mean business, food security and good nutrition.	August 2017
8	KILORWEMP PIU	Newsletter #8: Livestock in Kilombero Valley: boon or curse?	August 2017
POSTERS Ao and A4		Series: Sustainable management of wetland resources and Integrated Management Plan for the Kilombero Valley	
9	KILORWEMP PIU	Livestock in Kilombero Valley	June 2018
10	KILORWEMP PIU	Sites of Conservation Importance	June 2018
11	KILORWEMP PIU	Ngapemba Wetland site of Kilombero Valley	June 2018
12	KILORWEMP PIU	Spatial Framework for the Kilombero catchment	June 2018
13	KILORWEMP PIU	Changes in land cover across the Kilombero valley 1991-2015	June 2018
14	KILORWEMP PIU	Fisheries in Kilombero Valley	June 2018
15	KILORWEMP PIU	Spatial Framework for the Kilombero Valley Ramsar Site	June 2018

5.11 List of CBNRM field reports⁶⁹

TITLE
Kilombero District
A12-Ko1 Iluma refresher awareness raising\
A12-Ko2 Iluma status field assessment\
A12-Ko3 Iluma VGS Selection\
A12-Ko4 Advisory Board Meeting\
A12-Ko5 Erection of witness marks Iluma\
A12-Ko7 Review of Iluma RZMP\
A12-Ko8 Formulation of ILUMA WMA by-laws\

⁶⁹ Description of activity codes: 'A' stands for activity; 'K' stands for Kilombero; 'R' stands for Rufiji; and 'U' stands for Ulanga.

A12-K11 DNRAB Meeting\
A12-K14 Good Governance Roles and Responsibilities Training of VGS CBOS VLS\
A13-Ko1 Merera PFM introduction\
A13-Ko2 UHANILA VFR Forest resurvey - Merera Village\
A13-Ko3 UHANILA VFR- field activity to enhance management plan\
A13-Ko7 Training on forest inventory\
A13-K10 UHANILA BYLAW AND MANAGEMENT PLAN\
A13-K11 Revised draft of UHANILA forest mgt plan & by-laws\
A13-K12 Present Uhanila mgt plan to KDC\
A13-K13 Approval of forest mgt plan\
A13-K14 Boundary consolidation\
A13-K15 User right, mgt plan and bylaws merera, idunda and Misita\
A13-K16 Boundary consolidation\
A13-K16 UHANILA boundary demarcation\
A14-Ko1 BMU Status Assessment\
A14-Ko2 BMU Stakeholders Meeting\
A14-Ko3 BMU District Leader Awareness\
A14-Ko4 Training for district staff on fisheries management\
A14-Ko5 Training to Village Change Agents\
A14-Ko6 BMU Awareness and Sensitization meeting\
A14-Ko8 BMU Leaders selection\
A14-Ko9 BMU leaders capacity building\
A14-K10 Facilitate printing of fishing vessel registration form\
A14-K11 BMU vessel registration\
A14-K12 BMU field excursion to Mwanza\
A14-K14 VNRC & VGS Selection\
A14-K16 Training on wetland and fisheries resource assessment 2017\
A14-K17 BMUs Boundary Demarcation and Mapping\
A14-K18 Preparation of Gundu & Mbuti Mgt Plan\
A14-K19 BMU Bylaws\
A14-K20 Ngapemba bylaws\
A14-K20 Ngapemba, Gundu & Mbuti Mgt Plan\
A14-K22 REGISTRATION OF BMUs\
A14-K24 To facilitate registration of BMU meetings\
A15-Ko1 Iluma VLUP Review\
A15-Ko2 Iluma VLUP registration\
A15-Ko3 Iluma land law training\
A15-Ko5 Training of VLUMs and Village Land Tribunal Members\
A22-25 District security committee visit ILUMA\
A22-Ko1 CBO meeting\
A22-Ko1 Iluma Financial Management Training\
A22-Ko2 DFT & CBO Study tour to successful WMA\
A22-Ko3 ILUMA Boundary clearing\
A22-Ko5 Establishment of ILUMA Board of Trustees\
A22-Ko6 Facilitate meeting of ILUMA board of trustees\
A22-Ko8 Develop of ILUMA FM\
A22-Ko9 ILUMA Constitutional review\

A22-K10 ILUMA Board of Trustee\
A22-K11 Ifakara town council\
A22-K12 Sensitization to villages leaders around ILUMA 2017\
A22-K13 Awareness raising on environmental issues UHANILA-ILUMA 2017\
A22-K25 Security Committee\
A22-K30 District Security Committee\
A22-K30 Facilitate District Security Committee follow-up ILUMA\
A23-K03 UHANILA Enhanced inventory_PFRA\
A23-K04 UHANILA HARVESTING PLAN 2016\
A23-K06 Protection of Wild Fire\
A23-K08 Patrol Team\
A23-K09 Crime Scene\
A24-K01 Awareness creation on environmental hygiene & Gender\
A24-K02 Capacity Building to BMUs as fish tax collection agents\
A24-K03 Value addition on fish products & increased fish folks\
A26-K01 DFT Annual Review and Planning Workshop\
A26-K02 DFT Annual Review and Planning Workshop\
A26-K04 Quarterly participatory monitoring-DPTs\
A26-K05 Participatory monitoring\
A310-K01 Participatory CBNRM Q2 M&E Follow up\
K XXX Tourism business visits\
KDC Reports missing in Anicet files 2016\
KDC Reports missing to Anicet 2016\
Ngapemba BMU report collection\
Rufiji District
A12-19 Consolidation of Sign boards\
A12-R01 JUHIWANGUMWA Support to Boundary Conflict Resolution\
A12-R02 JUHIWANGUMWA Reintroductory village meeting\
A12-R03 JUHIWANGUMWA Review VLUP\
A12-R04 JUHIWANGUMWA Boundary Demarcation\
A12-R05 Verification of proposed zones of Juhiwangumwa WMA\
A12-R06 Stakeholder workshop for WMA RZMP\
A12-R07 Certificates for village lands\
A12-R08 JUHIWANGUMWA Training on Wildlife Policy Laws and Regulations\
A12-R10 AA Application\
A12-R12 Study visit to MBOMIPA\
A12-R13 JUHIWANGUMWA Training on Good Governance\
A12-R16 JUHIWANGUMWA Stakeholders meeting on WMA encroachment\
A12-R20 DNR Advisory Board\
A12-R20 DNRA meeting\
A12-R21 Board of Trustee Meeting JUHIWANGUMWA\
A13-R01 Mtanza Msona Review of Management Plan\
A13-R02 Mtanza Msona Management Plan\
A13-R03 Mtanza Msona Harvesting Plan\
A13-R04 Feedback workshop on harvesting Mtanza Msona VLFR\
A13-R06 Capacity building for VNRC and village leaders\
A13-R07 Study visit to SULEDO\

A13-R08 Initiate PFM processes in Mtatula VFR\
A13-R09 Mtatula VFR boundary identification\
A13-R15 Mtanzamsona felling coups\
A13-R21 MTALULA VFR Boundary conflict resolution meeting\
A13-R23 Enhancement of Mtanzamsona VFR inventory data\
A14-R01 BMU Introductory Visits\
A14-R02 Training on BMU Establishment\
A14-R03 Supervision on Registration\
A14-R04 Formulation of BMU Executive Committee\
A14-R05 Training on Roles and Responsibilities\
A14-R06 Train 3 BMUs in Fisheries Management policy and regulation\
A14-R07 Develop BMU management plans\
A14-R09 BMU by-laws approval\
A14-R23 BMU study tour in Tanga\
A14-R27 Fisheries Resource Management Plan\
A14-R30 Planning for BMU enhancement support in Rufiji DC\
A21-R01 Vicoba Status Assessment\
A21-R02 Support VICOBA groups in reviewing constitution\
A21-R03 Facilitate selection of 13 CBT\
A21-R04 Training of CBT\
A22-R01 Juhiwangumwa WMA Office\
A22-R02 DNRAB Meeting 2016\
A22-R04 Registration Board of Trustee & Constitution RITA\
A22-R18 Interview & Registration of VGS\
A22-R18 Interviewing and Registration of VGS\
A22-R19 Development of bylaws-JUHIWANGUMWA\
A22-R21 Costomary Right-CCRO\
A22-R3 Review of JUHIWANGUMWA constitution\
A23-R01 Training on monitoring and law enforcement - MTANZAMSONA VFR\
A23-R01a Participatory in KVTC inventory training\
A23-R03 Capacity building in forest measurements\
A23-R07 Report on approval of bylaws and MP Mtanzamsona\
A23-R08 Report on formulation of VFS-Mtanzamsona\
A23-R2 Training report on beneficiary sharing\
A23-R4 Capacity building in forest fire control prevention techniques for Mtanza Msona Forest reserve\
A23-R7 Meeting between RDC\
A26-R01 preparation of roadmap and annual plans 2014\
A310-R01 Annual Review and Planning workshop\
A310-R03 Annual Review meeting\
A39-R01 Capacity Building and Training Needs Assessment\
A39-R08 Training on CAS data\
IRD support mission reports\
MTANZAMSONA TIMBER HARVESTING\
ULANGA DISTRICT
A12-U01 Iluma Refresher Awareness Raising\
A12-U02 Iluma Awareness raising planning meeting\

A12-U03 Iluma Awareness raising review meeting\
A12-U04 VGS Selection\
A12-U05 Consolidation of the Iluma boundary\
A12-U06 Iluma Advisory Board Meeting\
A12-U08 ILUMA Formulation and harmonization of by laws\
A12-U09 traning of VGS\
A12-U11 ILUMA User right followup\
A12-U12 ILUMA Train VGS and CBO on roles and responsibilities\
A13-U01 PFM Indroductory Visit\
A13-U02 PFM 3 VFRs Boundary Identification\
A13-U03 Forest Survey\
A13-U04 Training on Roles and Responsibilities\
A13-U05 PFM(U) Survey of Chokoachoko VFR , Kichangani village\
A13-U07 PFRA Kimbiru VFR\
A13-U08 PFRA Idunda Libenanga\
A13-U09 Forest Management plans of Luuya and Kimbiru VFRs\
A13-U10 Extension of Chokoachoko VFR\
A13-U11 VFR -forest by laws\
A13-U14 Capacity building of PFM inventory\
A13-U15 Develop Forest management plan of Chokoachoko VFR for Kichangani village\
A13-U16 Formulate Forest by Laws at Chokoachoko for Kichangani village\
A13-U17 To facilitate endorsement and approval of Chokoachoko VFR Mgt plan and By- Laws for Kichangani Village\
A13-U28 PFRA enhancement\
A13-U30 PFRA training of VNRC\
A14-U01 BMU Status Assessment\
A14-U02 Training for district staf on fisheries management\
A14-U03 Assessment of fisherfolks and vessel registry\
A14-U04 Identification and Mapping of Fisheries resources in Mikeregembe and AbdallahNgwila\
A14-U05 Identification and mapping of fisheries\
A14-U06 Develop fisheries management plan for ABDALANGWILLA\
A14-U07 Establish fisheries change agent at ward and village levels\
A14-U08 Capcity building of fisheries change agents\
A14-U09 MIKERESEMBE Formulation of BMU By-Laws\
A14-U10 BMU By-laws formulation ABDALLANGWILA\
A14-U11 BMU study tour to Pangani\
A15-U01 VLUP Validation\
A15-U02 Preparation of Deed PLans and Land Certificates\
A15-U03 Approval and Handover of Land Certificates\
A15-U04 Boundary Conflict Resolution\
A15-U05 Training on Roles and Responsibilities\
A15-U08 Update VLUP of newly resurveyed village forest reserves\
A22-U08 DNRC Advisory Board\
A22-U10 Tracking crime scene training\
A22-U11 Capacity on business skills\
A22-U15 Routene monitoring of wildlife species\
A22-U16 Board of Trustee meeting\

A22-U18 Issuing customary rights of occupancy ILUMA-CCRO\
A22-U19 To support District Natural Resources Advisory Body meeting at Mang'ula\
A23-U02 Training on Forest Inventory\
A23-U05 KVCT MEETING\
A23-U11 Capacity building on business skills\
A23-U12 Formulation of patrol team\
A23-U13 Training crime scene mgt\
A23-U14 Joint meeting TFS and DFO\
A23-U15 Tree Marking CBFM\
A23-U17 Tree volume calculation\
A23-U18 Wildlife protection & Control training\
A23-U19 Endorsement and approval of VFR Management plan and By- Laws\
A23-U20 BYLAWS CHOKOACHOKO\
A31-U06 DPT-Quarterly monitoring and evaluation\
A310 Monitoring\
A38-U02 Commemoration of wetland day\

END VLOUME (I)