



DEVELOPMENT CORRIDORS PARTNERSHIP (DCP)

DISSEMINATION WORKSHOP OF DCP WITH SAGCOT CENTER LTD (DCL) REPORT



In collaboration with



18 February 2022
SAGCOT Centre, Dar es Salaam, Tanzania

Workshop Participants

- Geoffrey Kirenga, CEO, SAGCOT Center Ltd
- Maria Ijumba, Head of Cluster and Partnership Development, SAGCOT Center Ltd
- John Nakei, Kilombero Cluster and Partnership Manager, SAGCOT Center Ltd
- Anna Reuben Mtaita, Head of Finance & Administration, SAGCOT Center Ltd
- Irene Kalwila, Intern, SAGCOT Center Ltd
- Adam Ndatuulu, Kilombero Cluster, SAGCOT Center Ltd
- Milton Shangu, Proc Advisor, SAGCOT Center Ltd
- Irene Kitomari, SAGCOT Center Ltd
- Khalid Mgaramo, Manager Ihemi Cluster, SAGCOT Center Ltd (ONLINE)
- Renatus Magesa, GIS Manager, TNC and SAGCOT (ONLINE)
- Neil Burgess, WCMC Principal Investigator
- Arnout van Soesbergen, WCMC (ONLINE)
- Lawrence Mbwambo, DCP WWF Manager
- Gladness Mtega, DCP WWF Coordinator
- Severin Kalonga, Partnership Development Manager, WWF Tanzania
- Abubakary Kijoji, CARE-WWF Alliance Manager
- Happiness Minja, Sustainable Investments Programme Officer, WWF Tanzania
- Prof Japhet Kashaigili, Professor, Sokoine University of Agriculture (SUA)
- Prof PK Munishi, Professor, Sokoine University of Agriculture (SUA)
- Nyemo Chilagane, Researcher, Sokoine University of Agriculture (SUA)
- Ruth Pallangyo, Researcher, Sokoine University of Agriculture (SUA)
- Lilian Kolukwi, Researcher, Sokoine University of Agriculture (SUA)
- Jessica Thorn, Lecturer, University of York
- Arnout van Soesbergen, WCMC (ONLINE)

Workshop Presenters/Speakers:

- Neil Burgess, WCMC Principal Investigator
- Jessica Thorn, PDRA University of York
- Nyemo Chilagane, PDRA, Sokoine University of Agriculture (SUA)

Moderator/Facilitator:

- Christine Tam, DCP Senior Advisor

Other Workshop Support:

- Amani Moshi, Accountant, WWF Tanzania (finance)
- Japhary Kiwanga, Communications, WWF Tanzania (communications)
- Matrinda Simfukwe, M & E Manager, WWF Tanzania (facilitation)

DEVELOPMENT CORRIDORS PARTNERSHIP-SAGCOT DISSEMINATION MEETING
18 FEBRUARY 2022
SAGCOT CENTRE BOARDROOM

Key Objectives: This meeting was intended to provide a taste to SAGCOT Center key staff of the type of key information and methods available for integration into SAGCOT work to advance sustainability objectives. Specifically:

- To present overview of key results of the Development Corridors Partnership research that can be used to improve social and environmental sustainability of SAGCOT
- To lay out potential key applications of the research for SAGCOT especially related to cluster development planning and implementation
- To identify actions forward: how to share data/info, support application, launch brochures

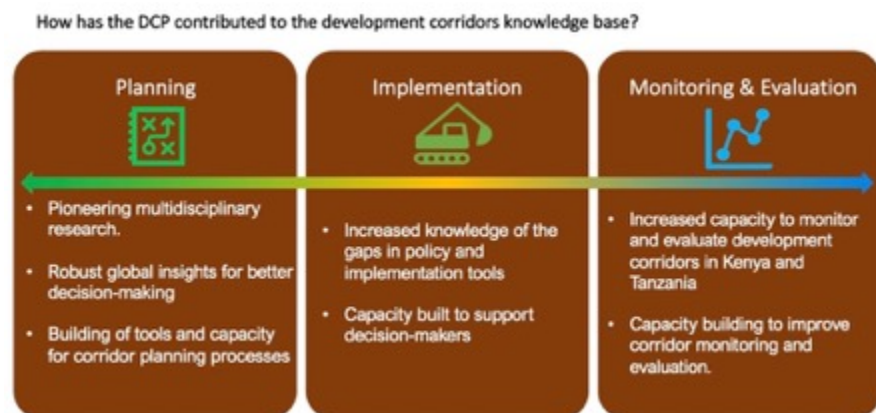
Welcome: The meeting was opened by Geoffrey Kirenga, SAGCOT Centre CEO who talked about SAGCOT's commitment to sustainability and appreciation of partner engagement.



Introductory Remarks & DCP Project Overview (Neil Burgess)

Professor Neil Burgess, Principal Investigator, then provided introductory remarks from the United Nations Environment Programme World Conservation Monitoring Center (UNEP-WCMC) and the Development Corridors Partnership (DCP), and provided a general overview of outputs and findings from DCP.

He talked about the purpose and promise of development corridors as well as their risks,



outlining how DCP contributed to information about planning, implementation and monitoring/evaluation of development corridors.



He also reviewed the other resources being developed by DCP: the EIA/SEA sourcebook, the online corridors resources hub, the African Corridors database, and the Corridors E-learning course. He also touched upon a couple pieces of DCP research work which would not be elaborated in later presentations:

1. Updated land cover and habitat maps (20 m) for Kilombero cluster (watershed basin)
2. Wildlife corridors mapping and modeling work, focusing on priority elephant corridors, in the Kilombero
3. SAGCOT Climate adaptation planning issues and related guidelines (by Chinese Academy of Agricultural Sciences)

He spoke of the future of DCP and assured SAGCOT Centre of the availability of all data generated by DCP as well as the availability of the DCP team as advisors.

Participatory Scenario Planning (Jessica Thorn)

Jessica Thorn presented on *Kesho Mpya (New Tomorrow): Envisioning a Sustainable Future* to describe the utility of participatory scenario planning in decision-making when faced with uncertainty. This approach facilitates the connection between on-the-ground voices and high-level strategic decision-making. She then proceeded to describe work done over the last several years in Kilombero to use stakeholder perceptions to produce four diverse, plausible socio-economic and land use scenarios to identify trajectories of spatial patterns of land use change into the future (i.e., 2030 and 2063). She described historical trend analysis in the region as well

as the four scenarios identified by the diverse local stakeholders: “Kilombero Mpya” (New Kilombero – best case scenario), “Running fast, Going nowhere”, “Get rich, forget about the future”, and “Shrinking Kilombero” (worst case scenario). She then reviewed for each scenario what implications there might be for the local economy, strategic value chains, and climate change and set forth relevant policy recommendations.



Her conclusions and policy implications included 20 issues as featured here:

1. Small-scale farmer intensification and secure labour based green jobs
2. More food sovereignty and less nuclear farms
3. Strategic Environmental Impact Assessments
4. Apply the Polluter Pays principles
5. Regulate Genetically Modified Organism
6. Harmonize environmental, transport and agricultural policies for more benefit sharing
7. Transition from biomass to renewable energy
8. Convert waste streams into value added products
9. Manage agrochemical contamination
10. Downstream water security from hydropower plants
11. Manage high cost of water resources due to drought or private ownership
12. Enforce riparian buffer zones and restore priority areas
13. Raise awareness of importance of wildlife, forests, and wetlands to reduce HWC
14. Advocate to commodity boards for more stable market prices
15. Engage communities at all stages of investments to reduce conflict and spill over
16. Accessible technology transfer
17. Recognize the value of Indigenous and traditional ecological knowledge.
18. Celebrate cultural heritage through PPP
19. Enforce participatory Village Land Use Planning, using official channels

20. Scale regularisation and issuance of certificates that clarifies land boundaries/reduces grabbing

Key questions raised about her presentation included the following:

- GMOs issue. This recommendation is based on interviews/workshops. How can we test if the systems in place to address GMOs in Tanzania are robust enough to address the threat? Do the institutions adequately exist to regulate the issue?
- Why recommend less nuclear farms as there aren't many now anyway? Minimal presence of large-scale farms (e.g., in Kilombero, very few including sugar cane, KPL). SAGCOT is very interested to see how nuclear farms can contribute and share their learnings, particularly around sustainable technologies since they know and do generally know about sustainable practices. The big question is how their practices and compliance can provide lessons learned and be used for small holders.
- Resources/financing – these recommendations generally require resources, so how can these be accessed especially in a sustainable manner?
- What is practice elsewhere. Public resources are not sufficient. Where have they organized resources to be mobilized? Sustainably?

Participatory scenario planning is a useful approach to land management decision making. Not only is it an inclusive process where diverse voices can be heard, but also the scenarios developed can be critical inputs into natural capital mapping, which is another useful approach and knowledge base that supports sustainable development decisions.

Natural Capital and Ecosystem Services

The main session then focused on Natural capital and ecosystem services. Natural capital is the stock of natural assets, including soil, water, and all living things. Natural capital generates ecosystem services, which are the benefits that nature provides humans, such as water provisioning, climate stabilization, flood control, recreational activity, timber for building and non-timber forest products for medicine. These benefits improve human well-being (which can be economically valued). Because decisions on agricultural activity can cause alterations in land use and natural assets, which can have a profound impact on ecosystem services, a deeper understanding of natural capital across the landscape can be essential to informed decision-making. Two DCP researcher teams have been working on natural capital issues: Sokoine University of Agriculture (SUA) and UNEP-WCMC.

Natural capital and ecosystem services in SAGCOT (Sokoine University of Agriculture (SUA) – presented by Nyemo Chilagane but also representing Prof Munishi, Prof Kashaigili, Dr. Paulo Lyimo, Ruth Emanuel, and Lilian Kolukwi and the broader SUA team)

The SUA presentation laid out the body of work that the DCP SUA team has done related to natural capital in the SAGCOT region. It started by introducing results of biodiversity surveys that have been conducted in the region revealing high biodiversity. They then highlighted

pollination services from bees for agriculture as an underappreciated though critical ecosystem service. They showed maps of land use and ecosystem service distribution.



The next topic covered by SUA was a prioritization of ecosystems in the Kilombero cluster where they found that the most important ecosystem services for locals were water provision, food, medicine, energy, timber, shelter and bee products. They also found that experts and local communities had different perspectives on priority ecosystems with experts favoring climate services and communities favoring water services. Economic contributions of ecosystem services were also monetized. Fish were found to contribute up to 500,000 tsh monthly to local households and between 24% to 78% of subsistence protein. Timber also provided important services, generating between 50,000 to 3 million tsh of livelihood income annually per household.

SUA also showed historic land use and land cover changes that have happened in the SAGCOT region from 1995 to 2018, with significant decreases in forest, woodland and wetland and substantial increases in cultivated lands and settlements. These land use changes resulted in changes in various ecosystem services, notably increased annual surface runoff and sediment loading (erosion), and decreased ground water recharge and dry season river flows. These changes also accompanied a decrease in carbon storage and sequestration across the region.

Natural capital mapping in Ihemi and Kilombero Clusters: Future Scenarios (Neil Burgess standing in for Arnout van Soesbergen and Renatus Magesa)

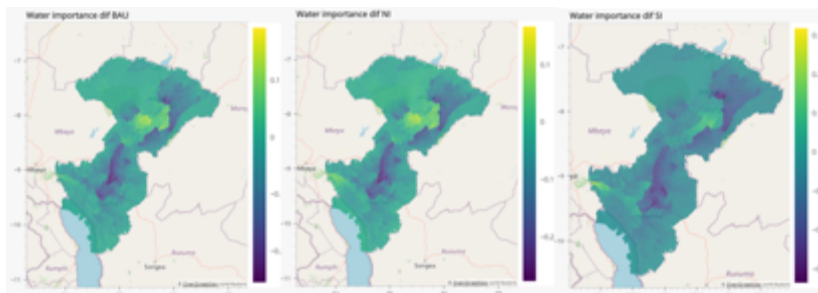
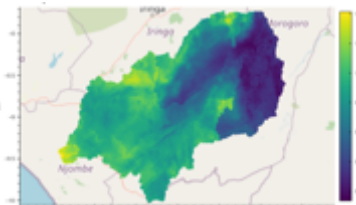
UNEP-WCMC then followed with a presentation of natural capital mapping across the Ihemi and Kilombero clusters. In contrast to historical changes, these results focused on looking

forward at future plausible scenarios of Ithemi cluster, developed with a similar methodology to the future scenarios presented earlier by Jessica Thorn.



Their analysis generated such maps as those of water importance for Kilombero cluster which integrate supply and demand for water such that higher values show where there is more water production that benefits more users downstream.

Darker colors reflect these most important areas for both supply and demand of water. (Figure to right)



Modeling was done to map these same areas into the 2030 future when looking at a Business-as-usual scenario versus a best-case and worst-case scenario. (Figure on left)

This work demonstrates that spatial mapping of natural capital and ecosystem services provides a better understanding of important areas for delivery of services, which can support any type of land use planning. It is clear that SAGCOT strategic clusters provide many valuable ecosystem services to a wide range of beneficiaries and contribute substantially to socio-economic development locally. Improved agricultural and livestock practices can have a large positive

impact on carbon, soil erosion and water production. Highlighted areas may require special management, and appropriate land uses and management practices may enhance ecosystem services.

Application of Research Findings to SAGCOT's work - Discussion

Short presentations by Professors Munishi and Kashaigili introduced potential ideas for application of the research findings described above to SAGCOT's work. These included the following uses for these research results:

- For mapping/zoning
 - Where to invest in rainwater harvesting or ground water recharge
 - Where to avoid high development
 - Where to invest carbon sequestration/mitigation activities
 - Identification of go/no-go zones
 - Where are sediment /erosion sensitive areas
- For guiding value chain activities
 - Agricultural production practices
 - Livestock production practices



This led into fruitful discussion and the opportunity for SAGCOT to highlight their concerns and interests:

- Is it population pressure or actual investments in agriculture that are causing the degradation of the land? The population in Tanzania has increased from 10.5 million in 1960 to 60 million in 2020. During that same time period, Sweden increased from 7 to 10.35 million, and the UK from 52 to 67 million people. How to account for population increases in terms of environmental impacts in Tanzania? How link population increases and increase in poverty?
 - How to test this to inform what can be done
 - At national level?
 - To reduce poverty?
 - This info is needed to engage partners on the ground such as small-holder farmers. The issue is not just about population control, but education of girls, etc
- Consider harnessing other aspects of ecosystem service values to alternative livelihoods
- Issue of good governance
- Communication to common people; need to bundle better into common language; otherwise, this is too technical and doesn't resonate with local people
- Need to link recommendations to research better
- Strong interest in valuation

- Contextualize more at the cluster level
- More dissemination needed
- Nature-based solutions (NBS) – now there are increasing opportunities to solve societal problems with NBS such as carbon markets, agro-forestry
- Link with IGG tool
- Ideas for DCP 2.0

The facilitator then laid out next step actions before the workshop was closed by Neil Burgess:

- DCP team to work with Renatus to share data (*DCP team*)
- SUA to work with WWF-CARE Alliance (Kijoji) to share info for his project working on 6 village LUP across 21 villages – to feed into dynamic LUP (*SUA Team & Kijoji*)
- Do communication brief directed at common people in non-technical terms (*DCP team*)
- Talk to John about best ways to disseminate – how to identify the right stakeholders – when do dissemination this month (*SUA team*)
- Ask DCP team to comment on linkages of their research with the IGG tool (identify gaps and how to improve) (*ALL DCP Team*)
- Can further engage with Jessica/SAGCOT regarding recommendations from scenario planning work during her stay in Tanzania (*Jessica/SAGCOT team*)
- Consider values (e.g., economic) more (*DCP Team*)
- Present to Development Partners Group (includes Finland, Denmark, Norway, UK, etc). DCP can make a presentation as part of SAGCOT which may lead to DCP 2.0 (*WWF/DCP Tanzania*)
- Link SAGCOT with materials for business sustainability – WCMC works with companies, do supply chain work. Business and biodiversity group. Zero deforestation supply chains, etc. (*Neil with WWF help?*)
- More explicitly address poverty in this work – integrate consideration of population in future work (*ALL*)



Annex 1. Agenda

18th February 2022
WORKSHOP AGENDA

Objectives:

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- To lay out potential key applications of the research for SAGCOT especially related to cluster development planning and implementation
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Time	Activity	Responsible person(s)
	Moderator: Matrída	
9:00-10:00	Breakfast/Tea Break – Arrival and registration	All welcome to come early
10:00 -10:05	Brief introductions	All
10:05 – 10:10	Welcome by SAGCOT	Kirenga
10:10 – 10:15	Objectives, agenda and meeting flow/format and outputs	Christine
10:15 – 10:25	Introductory remarks and Project overview and relevant general findings from the DCP project	Neil
10:25 – 10:35	Participatory scenario planning	Jessica
10:35 – 11:20	Natural Capital assessment/ ecosystem services (20 min) Natural capital and ecosystem services in SAGCOT, including <ul style="list-style-type: none"> - Spatial distribution of natural capital and ecosystem services in SAGCOT - Impact of development investments on natural capital (land use changes and drivers of change) (20 min) Natural capital assessment across scenarios in SAGCOT including Q&A	Japhet, Munishi, Nyemo Arnout (Neil)
11:20 – 11:50	Applying research results/data to cluster development planning and implementation, especially to mainstream ecosystem services and their associated values 10 min presentation & 20 min discussion	Japhet/Munishi [Matrída to facilitate]
11:50 – 12:00	Wrap-up with Summary of action items and closing remarks	Neil [Christine to facilitate]