

Project report: Identification of priorities for research and capacity building for 2019-2021



The Development Corridors Partnership December, 2018

The Development Corridors Partnership is a research and capacity building collaboration among institutions from China, Kenya, Tanzania, and the UK. Its main purpose is to deliver effective research and build capacity so development corridor decision-making can be based on sound scientific evidence and effective use of available planning tools and procedures.

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EXECUTIVE SUMMARY

Since the Development Corridors Partnership project started in October 2017, in addition to bilateral exchanges between partners and stakeholders and among partners, research activities and scoping work, there have been a number of meetings to capture potential avenues for research and capacity building that could lead to achieve the project goals. The several field trips, launch events and planning meetings have resulted in a better understanding on what corridors are, their key issues, and where and how this project could make a difference.



PURPOSE OF THIS REPORT

This document outlines in brief what was done at each stage of this process and concludes with some conclusions on: 1) the agreed research direction for the focal corridors and; 2) the capacity needs and capacity building plan for 2019 and beyond; 3) Key challenges and next steps.

SELECTION OF PRIORITIES FOR RESEARCH AND CAPACITY BUILDING

As of 1st December 2018, the project has decided its research and capacity building focus for 2019 and beyond, while maintaining flexibility as new information and capacity needs will arise.

In Kenya the project will focus its research efforts in 2019 on a) the Standard Gauge Railway and its design, implementation and outcomes for people, and wildlife, b) the LAPSSET corridor, focusing on hydrological issues and the development of technology and resort Cities, c) broader scale mapping of the critical habitats within the existing and planned corridors in Kenya, d) training and capacity building on research methodologies in social and natural sciences (e.g. participatory modelling of social ecological diverse plausible scenarios), as well as EIA and SEA process and international best practice to manage risks associated with development corridors. The key partners in Kenya are LAPSSET Corridor Development Authority and those government and private sector agencies developing the SGR.

In Tanzania the project will focus on the SAGCOT corridor and various aspects of its creation, current operation and future impacts for nature and people. The work will focus on building capacity to address the following: a) Ecosystem services biodiversity mapping and human wellbeing, b) ecosystem based Adaptation and Mitigation (EbA and EbM), c) hydrological challenges for agriculture, energy and wildlife conservation including projected water allocation demands across different users, d) land use changes and possible future

scenarios of change and their impacts on nature and people, including projected water allocation demands across different users, e) climate change and climate change adaptation strategies for the corridor and some target crops, f) power relations in the establishment and management of the SAGCOT corridor and in relation to decision-making and investment prioritisation, g) valuation and mapping the production and flow of ecosystem services and human wellbeing, h) capacity building in research methodologies, spatial planning, modeling, assessment valuation and mapping of ecosystem services, ecological impact assessment (EIA), scenarios modelling, i) scenarios of changes in ES and biodiversity under climate change.

The key partners in Tanzania are the SAGCOT Centre for agriculture, the Rufiji Basin Water Authority for hydrological issues, the WWF-CARE project in Ihemi Cluster, the IUCN Sustain project in the Kilombero cluster, the Tanzania Agricultural Research Institute (TARI) for agricultural production and research. and the National Carbon Monitoring Centre for land cover change and carbon and biodiversity relationships.

The capacity building programme for 2019 will focus on building internal capacity of DCP partners, respond to specific requests from external partners, and take part in collective capacity building efforts through collaborations with exiting projects and initiatives. As the consortium progresses in the research and understanding of development corridors specific external training will become available to key stakeholders.

2019 WORKPLAN

The highlights of the work in 2019 will be the field work that will be undertaken in Kenya and Tanzania from the early part of the year and through the rest of the year to December and the internal capacity building programme designed to raise capacity of researcher in Kenya, Tanzania, China and the UK.

There will also be a series of formal training and capacity building events in the UK, China, and East Africa. These will be arranged for various combinations of the staff on the project, but with a focus on the PDRA and RA staff. IN Tanzania we will also work to provide training to agricultural extension staff and/or from relevant ministry research units (TARI, TAFORI, TAWIRI, TFS TAWA etc) to train them on the different aspects of corridor management an integrated approach.

1. DEVELOPMENT CORRIDORS IN EAST AFRICA

1.1. Context

The concept of development corridors has existed for centuries when trade routes where created between different civilizations to allow trade. In Africa, development corridors were created to promote development in Africa which had traditionally been lagging behind other regions. The first development corridor as such was the Maputo Development Corridor created in 1996 between South Africa and Mozambique. Since then, several similar initiatives have been growing in the continent. China has also been promoting the idea of economic corridors for a number of years and expanded the scope of that approach to development through the creation of the Belt and Road Initiative (BRI). The difference between the concept of development corridors in Africa and the Belt and Road Initiative is that the former is developed and promoted by African nations, while the latter comes from the government of China. Moreover, the BRI is a global initiative that is composed by several transboundary economic or development corridors such as the Pakistan-China Economic Corridor. A meeting point of these two concepts is in East Africa where there are significant economic investment, loans and development assistance flowing from China in recent years, a trend that is set to continue.

Development corridors in Kenya and Tanzania

In Kenya there are two main corridors inland from the Indian Ocean: 1) the Lamu Port and Lamu-Southern Sudan-Ethiopia Transport (LAPSSET) and 2) the Standard Gauge Railway (SGR). They contain a diverse array of proposed development projects - ranging from linear infrastructure such as rails, roads and pipelines, to spatially spread nodes such as business hubs, ports and luxury cities (Figure 1).

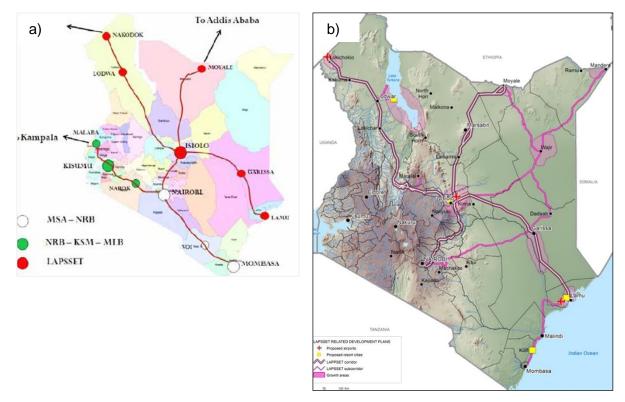


Figure 1: Position of the SGR (Phases I & II) (a) in relation to the LAPSSET and (b) location of the LAPSSET Corridor including roads, proposed resort cities and proposed airports (Sources: XXX)

In Tanzania there are five major well-known development corridors that originate at the Indian Ocean, namely Dar-es-Salaam/Tazara Development Corridor, Central Development Corridor, Tanga Development Corridor, Mtwara Development Corridor and Southern Agricultural Growth Corridor of Tanzania (SAGCOT) (Figure 2).

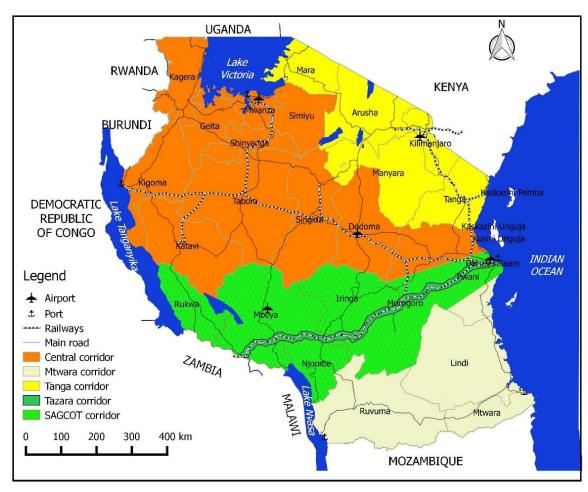
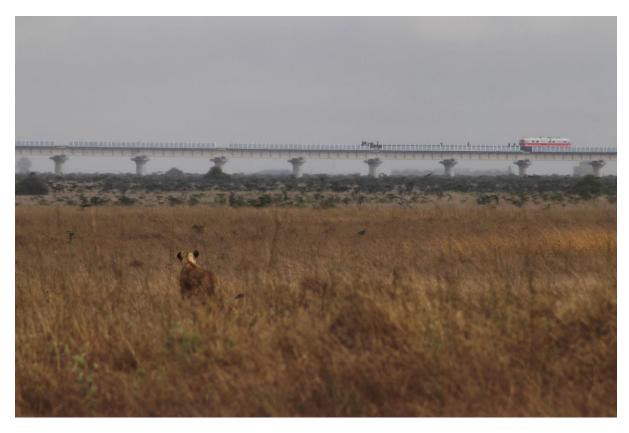


Figure 2: Major development corridors in Tanzania (Source: Tanzania Scoping Study)

1.3. The Development Corridors Partnership (DCP)

This partnership of East Africa, UK and Chinese agencies was established in October 2017 with funding from the UK governments Global Challenges Research Fund. The project will run for 4 years (until December 2021) and has a primary focus on capacity development with the aim of delivering impact on globally important development issues.

The capacity development effort of this partnership will be focused around the needs of the corridors in East Africa and the capacity gaps identified among project partners. The DCP has spent the first quarter of 2018 on, establishing the consortium agreement, recruiting all its staff, attending to administrative needs of project establishment and setting structures for donor financial and technical reporting. From April 2018 the project has also undertaken a baseline capacity assessment for all partners using the Capacity Development Assessment Tool (CDAT), and completed scoping studies in China, Kenya, Tanzania and the UK. These scoping studies provide a review of past work, identify key issues, and provide an outline of the research and capacity building needs in the focal area of the project, the development corridors of Kenya and Tanzania.



The Standard Gauge Railway (SGR) in Nairobi National Park.

The scoping studies for Kenya and Tanzania have completed detailed reviews of each of the main corridors that reach the Indian Ocean and hence might be regarded as extensions into Africa of the Belt and Road Initiative of China. These scoping studies gathered concrete information on the characteristics of each corridor and the work that is already being done, and could be done in each of them. The aim is to build capacity in the region to meaningfully influence the path of these corridors to maximise positive outcomes for people and the environment and to minimise negative outcomes.

2. SELECTION OF KEY PRIORITIES FOR RESEARCH

2.1. The process

Since the Development Corridors Partnership project started in October 2017, in addition to bilateral exchanges between partners and stakeholders and among partners, research activities and scoping work, there have been a number of meetings to capture potential avenues for research capacity building that would lead to achieve the project goals (Figure 3). The several field trips, launch events and planning meetings have resulted in a good understanding on what corridors are, their key issues, and where this project could make a difference. To achieve the latter the project team developed seven criteria to select priorities for research and capacity building (See section 2.2).



Figure 3: Key partner and stakeholder engagement project meetings of the DCP in 2017-2018.

Over the period 24 November to 2 December 2018, the DCP team from UK, Kenya, Tanzania and China undertook a multi-stage process to gather inputs that could be used to define the work that would be done on development corridors in Kenya and Tanzania, and how the skills and expertise of the full set of organisations and staff could be used to deliver both enhanced capacity, good science, and real world impact on the corridor process in the region (and more broadly).

This document outlines in brief what was done at each stage of this process and concludes with a section on the agreed research direction for the focal corridors.

In all cases there is a need for some further discussion amongst the partners to make the final plans for work, and to build linkages to impact partners, but the work that has been agreed will allow the project team to initiate field work in 2019 in both Kenya and Tanzania. It also shows where the expertise of UK staff can work together with East African and Chinese colleagues.

2.2. Selection criteria for research priorities

The project used a systematic approach to the selection of research priorities and corridors to focus its attention. The criteria used (Table 1, Annex 1) emphasised that the project should address key issues associated with development corridors, to ensure that the project would contribute to addressing problems of developing countries and help enhance sustainable development. In addition, to ensure that seek to include examples of corridors at different stages of development (mature, being developed, not yet started), and to cover

different kinds of corridor interventions (linear infrastructure, nodes of development, agricultural development, etc).

Based on the scoping studies the DCP was aware of 2 major corridors in Kenya and 5 in Tanzania that could be the focus of project attention. There was also a broader understanding of a need for contextual work at the national scale as there were further corridor plans under development that were not yet captured in the more readily available documents.

Table 1 – Summary of decision making criteria to select research priorities (see Annex 1 for full details). All research topics need to comply with Criteria 1 and 2 and at least one (but ideally all) of criteria 3 to 7.

No.	Criteria	Description
1	Key problems	Compulsory criteria: The research topic comes from, informs or addresses key issues, needs and gaps identified through scoping studies and stakeholder consultations.
2	Diversity	Across all research topics: Diversity underpinned the selection criteria applied to selection of research priorities. These include across sector policy relevance and potential to influence reforms, Stage of corridor development, Drivers of Development, Diversity of stakeholders: including explicit inclusion of the poor and vulnerable, Sensitivity to development impacts.
3	Capacity building	The research has significant potential to build capacity of DCP partners and increase in country capacity of key stakeholders.
4	Investment relevance	The research topic contributes to delivering better informed decisions on investments into the countries and thus ensure more sustainable development outcomes.
5	Best practise and lessons learned	The research topic has the explicit goal to develop best practice guidelines and case studies based on the practical evidence gained from research for application to corridor developments globally.
6	Funder relevant dimensions	The research topic provides the opportunity to explore some the following key issues important to the GCRF (impact, sustainability, equity and gender, Partnerships).
7	Appropriate expertise	The research team has the appropriate diversity and level of expertise to take on the required research topics to ensure that results are produced within the project period.

2.3. Kenya field visits (24-26 November)

On 24th November the DCP project team visited the route of the Standard Gauge Railway (SGR) in early stages of construction in Suswa, and discussed with local authorities and local communities the social and environmental potential impacts and benefits of the SGR in this area. The team also discussed issues related to water resources and production of energy and visited the location of the proposed power transmission line also in Suswa, which is in early stages of construction.

The team visited the Nairobi National Park, observed the route of the SGR as it passed through the protected area and was briefed on the process that led to the construction work by the NGO Friends of Nairobi National Park and a Kenya Wildlife Service (KWS) official.

The KWS official also summarised the management issues the park is facing because of encroaching development around it.

On the afternoon a meeting was organized in the site the Konza Technological city will be developed. There the team learned about the land use and conservation issues and the challenges and opportunities of this project which is in very early stages of development.



DCP partners at the Konza Technological city proposed site.

On the 26th of November the majority of the team travelled to Dar es Salaam, Tanzania to attend the project Tanzania launch and carry out further field work.

On the 26th, some of the project team also attended meetings in UN Environment HQ in Nairobi to receive briefings from the staff there on the potential project with regard to lessons learned from the SGR in Kenya. This project, directly relevant to the DCP, is very likely to start in January 2019 and it will involve several DCP partners.

The team learned a great deal from their 3 days in the field that helped them shape their research ideas. It also facilitated the development of sub-teams with aligned interests on work that could build mutual capacity and deliver development-relevant science.

Action points from Kenya trip

Action point	Who	Deadline
Follow up and obtain additional funding from	UNEP-WCMC	February 2019
UNEP to support work on the SGR lessons		
learned and stakeholder forum project idea.		

2.4. Project launching in Tanzania

2.4.1. Objectives of the launching day

- 1. Identify opportunities for collaboration
- 2. Challenges/opportunities for information generation
- 3. Discuss the role stakeholders will play to deliver the project output
- 4. Understand stake holder's expectation in the relation of the output of the project
- 5. To inform stakeholders on the project objectives and expected outcomes

2.4.2. Summary of activities and action points

The official launching of the project in Tanzania was undertaken at the Bahari Beach Hotel on the 27th November 2018. The morning session of the meeting comprised the official launching by Prof Yonika Ngaga and then a series of talks by invited key stakeholders and experts on different subjects.

This included government agencies as well as relevant researchers and conservation organisations such as for example the *National Development Cooperation (NDC) agency, Tanzania Port Authority (TPA), Tanzania Petroleum Development Corporation (TPDC), and* SAGCOT corridor stakeholders. The full agenda of this day is available in Annex 3.

Overall it was clear from the talks that the concept of development corridors was well embedded in the thinking of multiple agencies and was providing a framework for significant action within Tanzania. This provided a great inspiration for the DCP team that their work was timely and relevant. The talks



that were delivered are available within the projects SharePoint file sharing system at DCP Launch presentations

The afternoon of the day comprised breakout sessions where teams were asked to address the following questions:

- Identify research and information needs in the corridor (All Development Corridors)
- 2. How do we bridge profitable investments and conservation
- 3. What ecosystem services are available in the corridors that can support industrialization? How sustainable are they?
- 4. What is the future of ecosystem services under climate change?
- 5. How can we promote cross-sectoral planning and implementation
- 6. How can we ensure people's effective participation? Which mode of participation works best and how?

The results of these working sessions were presented in plenary.



Group picture at the launching meeting in Bahari Beach Hotel.

Action points from launching day

Action point	Who	Deadline
Tanzania team to update scoping study to include	Lead: SUA WWF	Mid-
material from the presentations give on the day	Support: UNEP-	February
	WCMC	2019
Kenya team to consider organising a similar stakeholder day where others can present their work alongside the Kenya scoping study so that a final version of the Kenya study can be produced and synergies with other work can be maximised	Lead: ACC, UoN Support: Uni Cam, Uni York	Q1/2 2019
All DCP partners to consider the outputs of the breakout groups in Annex 4 to further assist the design of their work to deliver impact.	All	End of Q1

2.5. Planning meeting day 1 (28 November)

2.5.1. Objectives of planning meeting day 1

The objectives of the day were to: 1) present the scoping work led by the China, Kenya, Tanzania, and UK teams; 2) identify the key issues related to achieving sustainable development corridors; 3) map those key issues to key areas of expertise and research interests; 4) identify areas and topics of study in a map; 5) present and discuss the internal capacity needs assessment. A full agenda of the planning workshop is available in Annex 4.

2.5.2. Summary of activities and action points

The planning day was completed at the Bahari Beach Hotel and contained a number of different sessions that had been designed to lead towards the definition of the work to be done by the project in the remaining period.



Day one in DCP planning sessions

Session 1: Presentation of scoping studies

This entailed the presentation of the main results of the scoping studies from the UK, Tanzania, Kenya and China by the project PDRA. The work was well received by all participants and questions were asked of each of the presenters. The work presented was used as way to frame the next working session. The full presentations are available on the project SharePoint file sharing system at DCP Launch presentations.

Action points from scoping studies session

Action point	Who?	Deadline
Finish scoping studies based on things learned	Kenya, Tanzania, UK	Mid-
and feedback received over the past two weeks	and China team	February
		2019

Session 2: Mapping of proposed research work to development issues

Work had already been previously completed to pull out the main research issues from the previous stakeholder consultations and project meetings, scoping studies, presentations from the Tanzania launching, and the field visits in Kenya. The aim of this mapping exercise was to identify the key research areas based on the issues identified that the project would carry forward in the future. And to do this in a fully transparent way that involved all partners. All issues identified were written down on 18 red cards which were used as a means to organise the proposed work of the team (e.g. Water allocation). Two more red cards were added to the mixture by participants (see Annex 5 for pictures of the cards).

A series of research areas were defined using coloured cards (e.g. Blue = water). Each researcher was then asked to write on the different coloured cards their actual planned

research (e.g. blue card = hydrological modelling in Rufiji basin) and to put it under the key issues cards (e.g. red card that was called 'water').







DCP partners posting research cards under key research priorities

Communication with team members in China who were not present at the meeting was used to ensure that their inputs were also captured. The cards that were written in this session were then arranged on the wall against the different issues. This showed that some issues had a lot of cards while others had few or none. The main priorities for research emerging from this process and from the scoping studies and earlier inception work are summarised in Table 2.

Table 2 – Key priorities for research identified through scoping studies and stakeholder consultation and field work

Safeguards/ EIA/SEA
Support on agricultural technology to benefit communities
Land-use change impacts on ecosystem services
Roadmap for greening corridors (e.g. LAPSSET)
Drivers of corridor development
Impact scenarios that offer solutions
Voice and participation
Transparency in investment processes

Develop closer interaction with
business/industry as entry point to change /
Investment decision making

Provide big picture of corridors nationally – convene people

Session 3: Thematic discussions

Working groups were convened around the issues cards that had the largest number of cards from different researchers. The working groups were: 1) Water, 2) Biodiversity and Ecosystem Services and Land Use Change, 3) Investments, 4) Climate change mitigation and adaptation. The working groups were asked to assess all the cards within the array they had been presented, refine the research topics, identify any gaps and overlaps with other initiatives, and links to the project work packages. Several group members also moved between groups during the session to ensure conversations were not taking place in isolation. Presentations were made from each group.

Action points from identification of key issues and priorities for research sessions and thematic discussions

Action point	Who?	Deadline
An additional task needs to be planned to ensure that issues with few cards are considered fully as they may be impactful	All partners	February 2019
Further guidance is required from the Tanzania team on how the project should present work on politically sensitive issues Steiglers gorge in the Selous Game Reserve. Tanga oil pipeline	SUA and WWF Tanzania	February 2019

Session 4. Mapping research to corridors

This session asked all researchers to locate cards of their proposed research onto maps of Kenya and Tanzania.

At the end of the session it was clear that in Kenya there was a spread of proposed work on the LAPSSET and SGR corridors. In Tanzania the majority of the cards were covering SAGCOT, especially the Kilombero and Ihemi clusters. But there were also cards on the lower Rufiji and Mbarali cluster. There were only 2 cards on the Tanga pipeline corridor to the north and 2 cards on the Mtwara corridor to the south.



Labels showing project research areas in Kenya (left) and Tanzania (right)

Session 5: Looking at spatial corridor gaps

Jon Hobbs facilitated a session that discussed whether the spread of work in the corridors was going to meet the criteria set down at the start of the session, or whether more effort needs to place elsewhere or in corridors that are only just being imagined (as we saw from the talk by the National Development Commission). He stressed the iportance of looking at the process and predicted impacts before the development happens and the need to develop best practices and guidelines from the research that could be used to inform corridor development internationally.

It was broadly concluded that there was a need to further investigate the Mtwara corridor as a corridor that was not yet under implementation, but keep work on the Tanga pipeline to a minimum and probably handle that from Cambridge.

Action points from mapping sessions and spatial corridors maps

Action point	Who?	Deadline
The various points on the map could be mapped to produce a GIS product. But it might be better to just use the pictures of the clustering on the project website / powerpoints	UNEP-WCMC	Mid- February 2019
Agreement needs to be reached with WWF over the use of spatial data in their SIGHT platform for Kenya and Tanzania	WWF and UNEP- WCMC	Mid- February 2019
Further detail of the work required in Mtwara corridor needs to be collected to facilitate decision making on work to be done there	WWF and UNEP- WCMC	End of February 2019

V : (ALUD V LIL: '	L LINED WOMO	
Various partners (Neil Burgess, York University,	Lead: UNEP-WCMC	End of
SUA, ACC) also need to make available GIS	Collaborators: all	February
data for the countries and corridors so that these	partners	2019 and
can be compiled into a common platform for the		then
project.		ongoing
Christine Tam / WWF Tanzania to provide	Christine Tam / WWF	Mid-
available key reports on the SAGCOT report to		February
all PDRA so that they are informed of the work		2019
that has been done before		

Session 6: Capacity building session

Internal capacity building - DCP partners

The session was started with a presentation of the results of the Capacity Needs Assessment Tool (CDAT) which was used between September and October 2018. The aim of the CDAT was to measure the perception of the project partners on their ability of to achieve the project aims.

The tool questionnaire was completed by 33 of the 50 potential respondents on the team. In general partners felt the internal attributes of the network are just sufficient to achieve the project aims but there were still concerns about the rules policies and procedures, and alignment on goals between partners. Partners were less positive about resources needed and the enabling environment as an issue to achieve the project goals although the feasibility (how difficult will it be to achieve that capacity) scores were positive.

An individual skills assessment was also conducted. Partners where asked about their individual capacity on specific skills, to access resources, and the enabling environment (external influences) in which DCP will need to deliver the work. Overall the results showed that for all skills minimum and maximum scores were obtained which means we have a good potential for co-learning. Figure 4 shows the results for the resources theme which had the lowest scores.

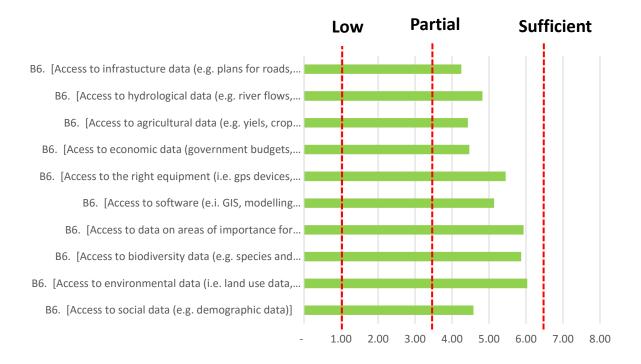


Figure 4: Mean scores from all respondents on the individual capacity to access a number of resources to achieve project aims.

This presentation showed that the tool has generated useful baseline information that can be compared with over time. However, it was agreed that the tool is not easy to use and there may be a need to find a way to simplify a bit and do some of the work again in early 2019.

Working groups were then tasked to gather information on the internal (within project) capacity building needs for them and their teams. These needs were then presented to the group. This was a useful session as it allowed the PDRA and RA to express their needs for the first time. Before that we had been relying on what was in the original proposal to plan training and capacity building work. Full details of this session are available in Annex 6.

External capacity building –actors involved in development corridors

One major gap was that the team did not discuss external capacity building. The reason for not having that discussion is that there had not yet been a previous stakeholder prioritisation without which it is not possible to identify the target audiences for capacity building efforts. Undertaking this prioritisation to identify key decision makers and then conducting an external capacity needs assessment to understand their needs is a priority for 2019. A plan for conducting an external capacity needs assessment should be included in the capacity building plan developed for WP1.

Action points for capacity building session

Action point	Who?	Deadline
The CDAT tool could use some editing to further simplify some of the questions and then it can be decided whether it should be applied again in early 2019	Lead: UNEP-WCMC	V
UNEP-WCMC should ask GCRF whether other programmes have used a different tool to measure baseline capacity at the start of the project. If they have we could review those tools to see if they might generate better or more useful data than the CDAT tool.	Lead: UNEP-WCMC	Mid- February 2019
Align the proposed training and capacity building in the original proposal.	Lead: UNEP-WCMC	Mid- February 2019
UNEP-WCMC to develop a capacity building plan that includes plans for external and internal capacity building	Lead: UNEP-WCMC	Mid- February 2019
Partner to prioritise capacity building needs based on available budgets, time and according to key issues identified through the scoping studies and stakeholder consultations.	All partners	Mid- February 2019
A training programme on research methods / survey design / questionnaire design for PDRAs going to the field in early 2019 needs to be put in place more rapidly than some of the other training programmes that might be done later in the year	Gedis and Chris	Q1 2019

A training course on participatory scenario planning	Jessica	Second quarter 2019
Training program on spatial modelling and mapping Training Program on Quantification and Mapping of ES and Biodiversity Training on Ecosystems and Climate Change Adaptation (EbA & EbM)	Lead - SUA	2 nd – Last Quarter 2019

2.6. Planning meeting day 2 (29 November)

2.6.1. Objectives of planning meeting day 2

Once priorities for research had been defined the second day focused on refining those research ideas and draft a workplan for 2019. There was also a discussion on whether the research proposed could achieve some impact on how development corridors are designed and implemented and various other important project matters that needed to be discussed as a group.



DCP partners discussing plans for Kenya

2.6.2. Summary of activities and action points

Session 7: Project planning for 2019

Country focused working groups were convened to talk over corridor-specific workplans for 2019. Where needed Chinese colleagues who were not present at the meeting were

involved through the internet. The workplans were discussed among the teams who would be working on each corridor and were developed in Excel format in the main. These workplans were then presented to the group.

Action points for project planning for 2019

Action point	Who?	Deadline
All researchers to continue discussing plans to make them operational for 2019 and submit a finalised work plan per partner to UNEP-WCMC.	All partners (one workplan per country / corridor	Mid- February 2019
The plans should include details about specific projects a table to will in will be provided for that.		
Final work plans are completed and circulated around the whole partnership;	UNEP-WCMC	End February 2019

Session 9: Research clearance

The foreign researchers all need research clearance in Kenya and Tanzania. The process for Kenya has been communicated previously and has to be undertaken by individuals. The process in Tanzania can be completed by groups and one group has already obtained clearance in Tanzania (under Neil Burgess name). But it was seemingly not possible to add further names to the application.

Action points for research clearance

Action point	Who?	Deadline	
All researchers wanting to work in Kenya to Apply online individually at https://oris.nacosti.go.ke/index.php	All non-Kenyan researchers	As soon as possible	
All researchers additional researchers wanting to work in Tanzania to complete CV forms and provide to Declan Conway to send for a second DCP application	All non-Tanzanian researchers	Done in December and follow up continuing	

Session 10: Impact challenge

Jon Hobbs facilitated a session challenging the researchers to think about the impact of their work and how the work would come together to deliver lessons for those implementing corridors now, and planning them for the future. He stressed the need to ensure that the project looked at corridors in different stages of development and that we used research to influence real work decisions.

Action points

Action point	Who?	Deadline
Corridor teams to consider how their work adds	All	Ongoing
value and might deliver impact		and up to
		2021

Corridor teams, when they do their work plans,	All	Ongoing
to consider how all their components can add up		and up to
to a coherent package of work		2021



DCP partner presenting the project's approach to research ethics

Session 11: Research ethics

Kate presented a summary of what we need to do to comply with international best practice on research ethics and proposed a process to make sure all research conducted by DCP was compliant with the donor's requirements. The work presented was based on her experience and the UNEP-WCMC research ethics policy that in turn was based on that from the University of Cambridge Geography Department. The presentation she made is on the sharepoint file sharing system.

Action points from research ethics

Action point	Who?	Deadline
Share research ethics with UNEP-WCMC	All partners who have	Mid-
	not done it yet.	February
	·	2019
Appoint a research ethics focal point	All partners	Mid-
		February
		2019
The project research ethics group will review all	Research Ethics group	End of
policies to determine if they are compliant with		February
the funder's requirements.		2019
The project research ethics will advise next	Research Ethics group	End of
steps to those who do not have a policy or	and partners	February
	-	2019

whose policy does not meet the funder's requirements.		
Research ethics process to be completed before people go to the field	WCMC together with DCP partners	January 2019
		onwards

Session 12: Equipment needs

A brief discussion was held on the equipment needs for the consortium. It was pointed out that lists of equipment had been provided earlier, but it was also noted that these lists add to a higher amount of money than the project has available. As such it was agreed that the lists of equipment should be again looked at and prioritised within the funds available unless additional money can be found from another source.

Action points for equipment needs

Action point	Who?	Deadline
All equipment lists to be reviewed at UNEP-	UNEP-WCMC	Mid-
WCMC and suggestions for use of available		February
money made		2019
Partners who require equipment will need to	SUA	Mid-
prioritise the original list they sent once available	University of Nairobi	February
funds have been assessed by WCMC		2019
Three quotations to be obtained for vehicles in	SUA	Mid-
Tanzania so these can be purchased directly by		February
WCMC		2019
UNEP-WCMC to resolve with ACC how to	UNEP-WCMC	Mid-
facilitate purchasing a vehicle for use in Kenya		February
		2019

2.7. Tanzania field visits (30 November – 2 December)

2.7.1. Field visit 30th November

The field team assembled in Iringa and completed a number of meetings:

- Offices of WWF in Iringa: We discussed the WWF-CARE alliance project which is working on value chains in the Ihemi cluster. The leader of the WWF-CARE project remarked that he wondered what had happened to us as he had not hear from us after the last visit. He provided an introduction to their work for a number of the new DCP members.
- 2) Rufiji Basin Water Authority office: The water basin officer gave the same broad talk as last time we visited there. Key issues being the lack of planning for the use of water and unclear appreciation that water was finite and there might not be enough to satisfy all users. He repeatedly mentioned the IWB master plan, which is in a number of volumes. Clearly a very important document which needs to be read and understood by those working on hydrology in the project.
- 3) **Silverlands farm**: We had an impressive talk and a demonstration of the different kinds of farming they are doing. Mainly poultry farms and seed production business. A large amount has been invested in the farm (which has a number of sites). The scale of the farming operation was impressive. They also knew about SAGCOT and

had been working with them quite a lot in the past 3 weeks. They said we could work with them if we wanted to.

Action points from Tanzania field visits

Action point	Who?	Deadline
Partners wanting to work on agriculture issues in	All partners	Ongoing
Ihemi could consider working with WWF / CARE		
alliance project.		
Source the water basin master plan and make	SUA	Mid-
sure that it is available to all partner in the		February
project.		2019
Source other key documents on SAGCOT	Christine Tam and Jon	Mid-
(Christine Tam and Jon Hobbs to provide) and	Hobbs	February
make sure all staff on the project have copies		2019



Kibena tea plantation at Ihemi cluster

2.7.2. Field visit and debrief meeting - 1 December

Kibena Tea

A large tea estate in Ihemi cluster where we met the manager Mr Usanga. The primary reason was to find out whether this could be a suitable case study for Prof Xu on climate

adaptation and zero carbon tea in Tanzania. The discussions went well and the potential for that case study seemed to be secured.

Action points

Action point	Who?	Deadline
Prof Xu to follow up with tea estate and make a	CAAS team	Mid-
plan for work in 2019		February
		2019

De briefing meeting

We used some time at the tea estate visit to do a round of short talks by everyone present so that they could say what they now planned to do. Most people said that they still planned to do the same things in broad terms, but had a better understanding of the ground and better contacts to those who they can work with. More importantly, the team was not more aware on the importance of making their research relevant to what the project is trying to achieve. Christine Tam was keen to stress that we needed to think how the work was joined up and how it was relevant to SAGCOT and how we thought we could make it relevant. She asked why things we did were any different to research that would be done even if SAGCOT did not exist.

The rest of the day was spent on coming back to Iringa to avoid driving at night.



DCP partner debriefing meeting at the end of the two weeks

3. OVERVIEW OF WORKPLAN 2019-2021

In this section we try and pull together the situation so far in terms of joined up work in the different corridors and what this might deliver. However, this is still not definitive as some aspects are not quite clear. In particular there is a remaining issue of some of the work in the SAGCOT corridor being a bit fragmented and the way that it joins up to deliver a coherent package that can create some impact at strategic levels and on the ground is still a bit lacking.

The immediate action point for all partners for 2019 is to prepare a final work plan for 2019 (See Section 4).

3.1. Kenya

3.1.1. Proposed research areas

- 1) Kenya Overall. There is a clear need for some national scale mapping of country, with a focus on corridors, showing where they may impact, directly or indirectly, freshwater and terrestrial areas of conservation importance and key natural resources and the communities that depend on them. For example, understanding how corridors might impact riparian areas could inform mitigation measures for water provision. The concepts of critical habitat are important to consider (and map) as these are the languages that are used by business when weighting up investment decisions. UNEP-WCMC has already done work to map critical habitat and this could be used in Kenya and the concept could be developed nationally. This aspect could be work undertaken between ACC and UNEP-WCMC (with other partners involved as needed and according to their interests). WWF SIGHT team may also be important to include as external partner (WWF Kenya, WWF Tanzania and beyond). In addition, and more importantly, alongside conservation, socio-economic impacts of these investments are of critical importance. It is fundamental to understand how local communities will be positively and negatively impacted by development corridors.
- 2) LAPSSET. There is a lot of work going on within this corridor and hence our project will only do some targeted work around water supply and links to technology and resort cities along the corridor. One key target site is Isiolo development which will be explored in a field trip in late January early November. The link to impacts will be through input to LAPSSET authority, which will need engagement by ACC and UoN. Expected outputs would be hydrological models and outreach products to the corridor authorities and more locally on the ground. The work will be done by Catherine and Dan Olago. WCMC will provide spatial maps of the corridor and technical inputs when required.
- 3) Standard Gauge Railway (SGR): This railway provides an excellent transect or gradient of existing and potential impacts on wildlife and people in different stages of project development. Many lessons can be derived from these case studies. There seems to be many fewer people working here and is hence an opportunity for DCP. Work will entail assessment of socio-economic impacts through social surveys (Cambridge), land use and climate change scenario work (York), wildlife work (ACC and University of Glasgow as a linked partner), hydrology (University of Nairobi). WCMC will provide GIS mapping support. ACC and CAITEC from China will assess the investment process and help with framing lessons learned and advice from an investor perspective. CAAS would carry out the cost-effectiveness assessment on what is the social, ecological and economic benefits for the SGR in adaptation to climate change. The scenarios work from York and ACC will be producing landuse maps that can feed into County level landuse planning process. Outputs will be reports / policy briefs and research papers. We will characterise past, current and future land use transformations and the cumulative direct and indirect impacts of development

corridors on ecosystem services and biodiversity across temporal and spatial scales. We will ask how this links with livelihoods. The land use plans will identify ecologically sensitive sites. We will ask what are critical ecosystem services and biodiversity that need to be monitored, how are they valued and how and can they be sustainably utilized. Outcomes will be in terms of lessons learned and advice for new infrastructure planning to the Government of Kenya and China, as well as more broadly. There is also an impact link here to the UN Environment funded support to government and other stakeholder forums that will aim to learn lessons from what has happened with the SGR and its decision-making process.

3.1.2. Gaps

The focus of the work of DCP is on the SGR, so we are not planning to do much work on LAPSSET. So long as the SGR work is the priority this is fine. It seems that there is no economics work planned in the SGR.

The key stakeholders for the SGR that we would seek to influence are not yet prioritised to the point that we know there are only 5 key (or less) agencies we would be working with to promote our results.

3.2. Tanzania

3.2.1. Planned projects

Tanzania Overall. There is a clear need for some national scale mapping of country, with a focus on ongoing and planned development corridors in the country, showing where they may impact, directly or indirectly, areas of conservation importance. Concepts such as critical habitat, as defined by the International Finance Corporation Performance Standard 6, are important to consider (and map) as these are the languages that are used by business. UNEP-WCMC has already done work to map critical habitat and this could be used in Tanzania and the concept could be developed nationally. This aspect could be work undertaken between WWF Tanzania (Langen Mallya) and UNEP-WCMC (with other partners involved as needed and according to their interests).

1) SAGCOT: SAGCOT takes a cluster and a value chain approach with the intention of achieving inclusive green growth. Any contribution at the corridor level should consider this. To understand this it would be good to read the SAGCOT strategic documents available in the project shared literature folder. However, they have many challenges in promoting these aspects and consistently are trying to figure out ways to better support, track, measure, and therefore achieve inclusive green growth. SAGCOT seem to be interested in figuring out how to track better the success of clusters and of a cluster approach within the development corridor across multiple value chains. One example of this thinking is a tool they started developing to help them track different aspects of sustainability (social, environmental and economic) related to value chains in a cluster. Thus, the "tool" that SAGCOT has developed is indicative of a greater problem/issue that SAGCOT is trying to solve, and I think we might be able to help them in their broader challenge, which comes down to how they measure success, especially economic, social and environmental success. Most corridors only look at economic success, so we have a real opportunity here to help broaden the perspective. This is indicative of their struggle with this question and their interest in support regarding this question. It would probably tie into their overall M&E plan (which from prior reviews would seem to benefit from improvement in this regard).

The majority of the DCP work in Tanzania will be undertaken in SAGCOT. However, the corridor is a large area, with a number of clusters, and faces a lot of different issues. So working here is complicated. Working around value chains of key commodities, is only partly of what the DCP project aims to work on. The key institutions to deliver impact from the work in the SAGCOT corridor and its clusters are also quite complicated. Some of the key ones are: a) SAGCOT Center, b) the Rufiji water basin authority, c) the National Carbon Monitoring Centre and d) the relevant district governments.

There is a considerable risk for the project that the various proposed areas of work under the funding of the DCP project will not amount to anything that can help key stakeholders to overcome some of their challenges to achieve sustainability, and hence not deliver impact. There is therefore still a need for a more joined up SAGCOT plan.

In addition, CAAS is interested to look at creating a corridor-level climate change adaptation study and or recommendations, which could be interesting asset for the corridor authority for attracting further government or international support. However, we will need to find the right focus and also who may benefit from our results, so that we make sure that limited resource can generate some useful inputs even if only for a limited groups of stakeholders.

SAGCOT decision making: WCMC and LSE are interested in looking into the decision making process. Scenarios and probabilistic models will consider local actor decision making and potential impacts on land use change and ecosystem service provisioning. We could draw in Bayesian Belief Network modelling to represent cognitive framing of stakeholders. In the scoping trip there was quite a lot of discussion about the need to consider some of the historical and political decisions that have been taken historically related to land use that has determined present day decision making of land use.

- **2)** Tanga pipeline. This is politically complicated in Tanzania. We may be able to provide some general mapping and critical habitat mapping support to TOTAL and their consultants who are advising on biodiversity issues raised by the pipeline route. This will be done by WCMC from Cambridge. Outputs would be to minimise the impacts of the route of the pipeline, in particular due to it passing through Minziro Nature Reserve.
- 3) Mtwara corridor. This is an example of a corridor that has not yet been implemented. Tanzania team, WCMC and China team have interests here. There has been past work by ecoagriculture partners, and by WWF in Rovuma area, which can form the basis of some useful work. Olam company also has interests in the area as well, through coffee plantations. The outputs of the work can be maps and some ground survey and engagement with partners. But the user of the products are not totally clear. And hence outcomes and impacts might be difficult to realise. This might also be a place to try and get more student support to gather more field data. The proposed way forward is for WCMC and WWF to talk some more, and bring in Chinese partners who have an interest in the proposed railway and building of a proposed coal mine and associated factory, and the climate impacts of that development. In addition, NCSC from China have potential interest to look at the climate change mitigation aspects of the Sichuan company investment in the western part of this corridor.

3.2.2. Potential projects

In an attempt to provide some overall structure for the DCP work in SAGCOT, the UNEP-WCMC team and the project consultant advisors have brainstormed some of the possible ways to frame some of the elements of the work. The below was not discussed formally at the workshop but each one was mentioned at some point in one or other of the different

kinds of discussions we had. And there may be more elements than this that could also provide potential framing. The below outlines a few of the plausible ways to frame components of the work. This needs further discussion as this would also link to publications and impacts arising from the programme.

- A) SACGOT input to 'Value Chains tool' and 'Inclusive Green Growth tool'. SAGCOT takes a value chain approach within clusters and they are interested in developing a value chain tool that will help them to do that, promoting sustainability. They are developing a tool that would be aimed at private sector/farmers, and is designed to help identify good/optimal locations for production, challenges, potential climate adaptation strategies, key environmental/social issues, profitability factors, etc. The environmental and social issues should be linked to the Inclusive Green Growth (IGG) tool that SAGCOT also has in draft form. It would be wise to consider how the project might contribute here.
- **B)** Other areas of work that we could complete that could be used would be:
 - a. SAGCOT hydrological overview: The would bring together the existing hydrological work that has been done and add the new work being funded by DCP to deliver a product that adds value to the planning by the SAGCOT center and the Rufiji Basin Water Authority. This work would be led by SUA and LSE who would work with the Basin authority. There would be outputs of papers and policy relevant reports and workshops.
 - b. SAGCOT land use plan: An existing plan already exists, but could be updated through the work of the project. UNEP-WCMC and SUA (together with York and linked University of Copenhagen students). This might also include SAGCOT ecological sensitive sites plan: A version of this has been previously produced, but UNEP-WCMC and other partners in this project have considerable competence and data. There are also considerable inputs here from the various planned PDRA and RA projects. SAGCOT delivery of ecosystem services: Various partners in the project have expertise in this area and there has been past work mapping ES at global, national, Eastern Arc mountains scale. Various projects within DCP will be adding to this body of knowledge, and can potentially be synthesised into a broadly useful product. SAGCOT climate adaptation plan: CAAS (Prof Xu and SUA) would like to facilitate an adaptation plan for SAGCOT. Including lessons from the field and field trials. This work would need to include: 1) workshops with key stakeholders, include those doing climate smart agriculture and other adaptation work, 2) the development of a Corridor level climate strategic adaptation plan, 3) in-depth case-study on carbon neutral tea practice in site level tea farm, Kibena tea farm as we have had the field trip
- **C) SAGCOT Social and economic impacts:** This seems important but is not being much addressed presently. It might be something that some of the LSE researchers will look at in more detail. Or some of the SUA researchers.

3.2.3. Gaps

The main gap is pulling all the above together into something coherent and tangible. The research plan for Tanzania needs to be develop further to clearly outline the work planned and the impact pathways to meet the project goals and to make the research relevant to the issues on the ground, especially making the outputs usable by key stakeholders such as SAGCOT offices and businesses operating in SAGCOT, basin management authorities, and planning agencies and companies involved in other corridors (e.g. Mtwara and Tanga).

4. CONCLUSIONS AND NEXT STEPS

4.1. Conclusions

2018 has been a critical year for the partnership to understand the key issues development corridors are facing, understand views from various stakeholder and assess the information already available in Kenya and Tanzania.

The field trip, launching and project planning meetings in November and December 2018 have provided a great boost to the project and have highlighted the aspects of the project that are going well and those which still require some more work.

Positive conclusions

Scoping studies have been a very good way to bring work together and provide some overview. These studies need to be finalised and published as DCP stylised project documents. A scientific manuscript around the results of both scoping studies that provides an overview of development corridors in East Africa and their potential impacts on nature and people could be a good collective product to aspire to in early 2019.

Capacity baseline and list of training and capacity building needs has been useful and will allow the project to focus its capacity development activities appropriately

The work in Kenya is quite well defined with coherent group of people working on the SGR that links out to China team, involves the UK and Kenya teams. There is also a good link to impact potential through UN Environment and other engagement in Kenya.

A good spread of work across the team has been achieved with both disciplinary and national teams coming together to work in combined ways on defined areas in Kenya and Tanzania.

Challenges

There is a difference in research approach between Kenya and Tanzania which will mean that the project will struggle to bring together and compare research results from the two countries as an overall product. This is because the development corridors in each country are very different in the way they are being planned and implemented and stakeholders that are involved. Nevertheless, there might be some commonalities. Looking for those commonalities to design research interventions around them could allow some fair comparisons.

There is a challenge of linking the Development Corridors and the Belt and Road narratives as the two meet in East Africa. Trying to link the two may not be possible or necessary within this project.

Although much improved, starting from a basis of no past collaboration, there is still work to be done to link the interests of partners in China with those in East Africa / UK, where partners have longer histories of working together.

The overall deliverables of the project in terms of papers, policy briefs, reports is not yet well defined but this can be made more concrete in the near future when the research results start to emerge. This is true for the whole of the partnership.

There is still a challenge of seeing how the work fits together and aligns with the project's theory of change to deliver impact in a number of the corridors. The impact pathway at the

corridor level needs to be better defined for each of the corridors, but perhaps most particularly in SAGCOT. To do this perhaps project partners need to map their research project to the theory of change to identify the contribution of their research to the outputs and outcomes. In addition, all teams need to include in their work plan a clear plan to disseminate their results to key stakeholders in a format they can use. UNEP-WCMC will lead a process to make that research mapping.

4.2. Next Steps

- All partners to follow up on action points of this report (see a compilation of all actions points in Table 3 below).
- All partners to determine their contribution to the theory of change and identify intended audiences and format of final outputs through a shared online table that will be provided by UNEP-WCMC.
- SAGCOT team which includes SUA and WWF Tanzania but could also involve other partners with interests in the country such as LSE and WCMC, needs some further detailed discussion on the coherence and impact pathway of the research planned.
- All partners to develop together a publication and outreach plan for 2019 onwards. UNEP-WCMC to coordinate.

Table 3 - Summary of action points from this report

AP No.	Source	Action point	Who	Deadline
1	Kenya trip	Follow up and obtain additional funding from UNEP to support work on the SGR lessons learned and stakeholder forum project idea.	UNEP-WCMC	February 2019
2	Launching day	Tanzania team to update scoping study to include material from the presentations give on the day	Lead: SUA WWF Support: UNEP- WCMC	Mid-February 2019
3	Launching day	Kenya team to consider organising a similar stakeholder day where others can present their work alongside the Kenya scoping study so that a final version of the Kenya study can be produced and synergies with other work can be maximised	Lead: ACC, UoN Support: Uni Cam, Uni York	Q1/2 2019
4	Launching day	All DCP partners to consider the outputs of the breakout groups in Annex 4 to further assist the design of their work to deliver impact.	All	End of Q1
5	Identification of key issues and priorities for research sessions and thematic discussions	An additional task needs to be planned to ensure that issues with few cards are considered fully as they may be impactful	All partners	February 2019
6	Addressing sensitive issues	Further guidance is required from the Tanzania team on how the project should present work on politically sensitive issues Steiglers gorge in the Selous Game Reserve. Tanga oil pipeline	SUA and WWF Tanzania	February 2019
7	Mapping sessions and spatial corridors maps	The various points on the map could be mapped to produce a GIS product. But it might be better to just use the pictures of the clustering on the project website / powerpoints	UNEP-WCMC	Mid-February 2019
8	Data sharing with WWF	Agreement needs to be reached with WWF over the use of spatial data in their SIGHT platform for Kenya and Tanzania	WWF and UNEP- WCMC	Mid-February 2019
9	Scoping work in Mtwara corridor	Further detail of the work required in Mtwara corridor needs to be collected to facilitate decision making on work to be done there	WWF and UNEP- WCMC	End of February 2019

AP No.	Source	Action point	Who	Deadline
10	Compiling GIS data	Various partners (Neil Burgess, York University, SUA, ACC) also need to make available GIS data for the countries and corridors so that these can be compiled into a common platform for the project.	Lead: UNEP- WCMC Collaborators: all partners	End of February 2019 and then ongoing
11	Benefiting from past work and expertise	Christine Tam / WWF Tanzania to provide available key reports on the SAGCOT report to all PDRA so that they are informed of the work that has been done before	Christine Tam / WWF	Mid-February 2019
12	Capacity building session	The CDAT tool could use some editing to further simplify some of the questions and then it can be decided whether it should be applied again in early 2019	Lead: UNEP- WCMC	Mid-February 2019
13	Capacity assessment tools	UNEP-WCMC should ask GCRF whether other programmes have used a different tool to measure baseline capacity at the start of the project. If they have we could review those tools to see if they might generate better or more useful data than the CDAT tool.	Lead: UNEP- WCMC	Mid-February 2019
14	Capacity building plan	Align the proposed training and capacity building in the original proposal.	Lead: UNEP- WCMC	Mid-February 2019
15	Capacity building plan	UNEP-WCMC to develop a capacity building plan that includes plans for external and internal capacity building	Lead: UNEP- WCMC	Mid-February 2019
16	Capacity building plan	Partner to prioritise capacity building needs based on available budgets, time and according to key issues identified through the scoping studies and stakeholder consultations.	All partners	Mid-February 2019
17	Capacity building plan	A training programme on research methods / survey design / questionnaire design for PDRAs going to the field in early 2019 needs to be put in place more rapidly than some of the other training programmes that might be done later in the year	Gedis and Chris	Q1 2019
18	Capacity building plan	A training course on participatory scenario planning	Jessica	Second quarter 2019
19	Capacity building plan	Training program on spatial modelling and mapping Training Program on Quantification and Mapping of ES and BiodiversityTraining on Ecosystems and Climate Change Adaptation (EbA & EbM)	Lead - SUA	2 nd – Last Quarter 2019

AP No.	Source	Action point	Who	Deadline
20	Project planning for 2019	All researchers to continue discussing plans to make them operational for 2019 and submit a finalised work plan per partner to UNEP-WCMC. The plans should include details about specific projects a table to will in will be provided for that.	All partners (one workplan per country / corridor	Mid-February 2019
21	Capacity building plan	Final work plans are completed and circulated around the whole partnership;	UNEP-WCMC	End February 2019
22	Research clearance	All researchers wanting to work in Kenya to Apply online individually at https://oris.nacosti.go.ke/index.php	All non-Kenyan researchers	As soon as possible
23	Research clearance	All researchers additional researchers wanting to work in Tanzania to complete CV forms and provide to Declan Conway to send for a second DCP application	All non-Tanzanian researchers	Done in December and follow up continuing
24	Impact challenge	Corridor teams to consider how their work adds value and might deliver impact	All	Ongoing and up to 2021
25	Research coherence	Corridor teams, when they do their work plans, to consider how all their components can add up to a coherent package of work	All	Ongoing and up to 2021
26	Research ethics	Share research ethics with UNEP-WCMC	All partners who have not done it yet.	Mid-February 2019
27	Research ethics	Appoint a research ethics focal point	All partners	Mid-February 2019
28	Research ethics	The project research ethics group will review all policies to determine if they are compliant with the funder's requirements.	Research Ethics group	End of February 2019
29	Research ethics	The project research ethics will advise next steps to those who do not have a policy or whose policy does not meet the funder's requirements.	Research Ethics group and partners	End of February 2019
30	Equipment needs	All equipment lists to be reviewed at UNEP-WCMC and suggestions for use of available money made	UNEP-WCMC	Mid-February 2019
31	Equipment needs	Partners who require equipment will need to prioritise the original list they sent once available funds have been assessed by WCMC	SUA University of Nairobi	Mid-February 2019
32	Equipment needs	Three quotations to be obtained for vehicles in Tanzania so these can be purchased directly by WCMC	SUA	Mid-February 2019

AP	Source	Action point	Who	Deadline
No.				
33	Equipment needs	UNEP-WCMC to resolve with ACC how to facilitate purchasing a vehicle for use in Kenya	UNEP-WCMC	Mid-February 2019
34	Tanzania field visits	Partners wanting to work on agriculture issues in Ihemi could consider working with WWF / CARE alliance project.	All partners	Ongoing
35	Hydrological management	Source the water basin master plan and make sure that it is available to all partner in the project.	SUA	Mid-February 2019
36	SAGCOT management	Source other key documents on SAGCOT (Christine Tam and Jon Hobbs to provide) and make sure all staff on the project have copies	Christine Tam and Jon Hobbs	Mid-February 2019
37	Climate adaptation plan	Prof Xu to follow up with tea estate and make a plan for work in 2019	CAAS team	Mid-February 2019

Annex 1 Selection criteria for priorities

Decision-making criteria for research focus for the Development corridors Partnership (DCP)

Introduction and rationale

This document outlines the decision-making criteria for DCP to select which research topics and geographical areas that will be a priority for the project from January 2019 to December 2021.

The Development Corridors Partnership is a research and capacity building collaboration among institutions from China, Kenya, Tanzania, and the UK. Its main purpose is to deliver excellent research that is effectively taken up by decision-makers to address problems relating to development corridors in developing countries and build capacity so that development corridor decision-making can be based on sound scientific evidence and effective use of available planning tools and procedures.

DCP is funded by the Global Challenges Research Fund (GCRF) which forms part of the UK's Official Development Assistance (ODA) commitment. This is monitored by the Organisation for Economic Cooperation and Development (OECD). ODA-funded activity should be designed to contribute to outcomes that promote long-term sustainable growth of countries on the OECD Development Assistance Committee (DAC) list. The central objective of ODA is to promote economic development and welfare of developing countries.

All GCRF funded activities need to be compliant with the UKRI guidelines on ODA relevance. These guidelines set out that:

- Only research directly and primarily relevant to the problems of developing countries may be counted as ODA.
- The fund can support research capacity building to address the development issues, for example, to increase the skills and knowledge base and support the development of the research capability within developing countries. Capacity building should be aimed at improving the ability to undertake and disseminate research in order to promote the welfare and economic development of the developing countries.

To achieve the above, the decisions on where will DCP focus its efforts need to be based on clear and concise criteria that demonstrate that it addresses identified problems of developing countries and have the potential to deliver impact and make a change (in the case of DCP on how corridors are designed, planned for and implemented).

Purpose of this document

This document outlines:

- 1) The criteria to select priorities for 2019-2021 to ensure the research delivered by the project is relevant to the issues the fund is aiming to solve, and sufficiently addresses the key problems that we want to have an impact on;
- 2) A research framework for each of the selected corridors to have a standardised approach for each corridor.

How will DCP select research priorities for 2019-2021?

All individual research should comply with criteria number 1, and all topics collectively with criteria number 2, both listed in Table 1. In addition, all selected research topics should comply ideally with all but a minimum of 1 of the criteria 3 to 7 in Table 1.

Table 1. Criteria for selected priorities for research and capacity building

No.	Criteria	Description
1	Key problems	Compulsory criteria: The research topic comes from, informs or addresses key issues, needs and gaps identified through scoping studies and stakeholder consultations.
2	Diversity	 Across all research topics: Diversity underpinned the selection criteria applied to selection of research priorities. These include: Across sector policy relevance and potential to influence reforms Stage of corridor development: From conceptual (investment appraisal), project planning (design and construction) operational, maintenance and through to legacy issues. Drivers of Development: anchor projects (e.g. extractives investments), area wide projects (e.g. public- private agricultural expansion). Diversity of stakeholders: including explicit inclusion of the poor and vulnerable. Sensitivity to development impacts: including political volatility and geopolitics, biodiversity and ecosystem services (including high conservation value areas, water availability), nature and extent of impacted communities, climate change mitigation and adaptation needs.
3	Capacity building	The research has significant potential to build capacity of DCP partners and increase in country capacity of key stakeholders. This could include 'on the job' training of post-doctoral researchers, the improvement in the ability of decision makers to produce better informed and quality decisions, and improving their skills in using decision making procedures, methods and techniques, as well as enhancing the ability of communities to engage in decision that influence their futures.
4	Investment relevance	The research topic contributes to delivering better informed decisions on investments into the countries and thus ensure more sustainable development outcomes.
5	Best practise and lessons learned	The research topic has the explicit goal to develop best practice guidelines and case studies based on the practical evidence gained from research for application to corridor developments globally.
6	Funder relevant dimensions	The research topic provides the opportunity to explore some the following key issues important to the GCRF: 1. Achieving impact 2. Sustainability 3. Equity and Gender 4. Partnership
7	Appropriate expertise	The research team has the appropriate diversity and level of expertise to take on the required research topics to ensure that results are produced within the project period.

Research framework for selected corridors

To ensure the project uses a standardised research approach and produces comparable studies the research should cover the areas in Table 2 for each of the selected corridors.

Table 2. Research areas for selected corridors

No.	Research areas	Description		
1	A temporal dimension	History of the areas of corridor developments throughout their life cycles considering direct/indirect, reversible/irreversible, long term/short term, synergistic/accumulative impacts using modelling and scenarios techniques when appropriate. Under each of these temporal stages we might investigate: Positive and Negative implications Environmental sensitivities Economic considerations Socio-political dimensions Governance needs		
2	A scalar dimension	Assess the corridor processes from the very local on the ground, up through various governance levels, and ultimately tracing out from East Africa to donors and overseas markets, etc. (including but not limited to China).		
3	Capacity building	Ensure the corridor selection has potential to build capacity of DCP partners and/or increase in country capacity of key stakeholders. This includes building capacity through improving skills, knowledge and processes.		
4	Best practise and lessons learned	Ensure the corridor selection has the potential to develop lessons learned for corridors internationally, so the work can be used to inform best practise.		

Annex 2 Kenya field trips

Field visit 24th November

On 24th November the DCP project team visited the route of the Standard Gauge Railway (SGR) in early stages of construction in Suswa, and discussed with local authorities and local communities (Suswa) the social and environmental potential impacts and benefits of the SGR in this area. The team learned about issues related to water resources and production of energy and visited the location of the proposed power transmission line also in Suswa, which is in early stages of construction.

INSERT SUSWA PICTURE

1.1.1. Field visit 25th November

The morning was dedicated to visit Nairobi National Park. The team observed the route of the SGR as it passed through the protected area and was briefed on the process that led to the construction work by the NGO Friends of Nairobi National Park and a Kenya Wildlife Service (KWS) official. The KWS official also summarised the management issues the park is facing because of encroaching development around it.

On the afternoon a meeting was organized in the site the Konza Technological city will be developed. There the team learned about the land use and conservation issues and the challenges and opportunities of this project which is in very early stages of development.

INSERT GROUP PICTURE

1.1.2. Travel day 26th November

On the 26th of November the majority of the team travelled to Dar es Salaam, Tanzania to attend the project Tanzania launch and carry out further field work.

On the 26th, the UNEP-WCMC project team attended meetings in UN Environment HQ in Nairobi to receive briefings from the staff there on the potential project with regard to lessons learned from the SGR in Kenya. This project, directly relevant to the DCP, is very likely to start in the first quarter of 2019 and it could potentially involve several DCP partners.

The team learned a great deal from their 3 days in the field that helped them shape their research ideas. It also facilitated the development of sub-teams with aligned interests on work that could build mutual capacity and deliver development-relevant science.

Annex 3 Agenda project launching in Tanzania



DCP LAUNCHING IN TANZANIA

27th November, 2018

Plaza Bahari Beach Hotel, Dar es Salaam

	Launching event			
Day Time		Activity	Responsible person(s)	
			person(s)	
	Moderator			
	8:30-9:00	Arrival and registration	All/ Secretariat	
Tuesday,	9:00-9:30	Self-introduction of participants	All	
Novembe	9:30-9:40	Opening remarks		
r 27,		Welcome note from SUA	Prof. Munishi	
2018		Welcome note from WWF	Dr. Ngusaru	
	9:40- 9:45	Objectives of the workshop	Prof. Kashaigili	
	9:45-10:10	Introduction of the DCP project	Prof. Neil Burgess (WCMC)	
	10:10-10:25	Speech from the guest of honor, SUA - VC	Prof. Yonika Ngaga	
	10:25-10:35	Group photo	All	
	10:30-11:00	Tea break		
	11:20-13:00	Presentation from Government agencies • National Development Cooperation (NDC) • Tanzania Port Authority (TPA) • Tanzania Petroleum Development Corporation (TPDC) • Transport and Infrastructure - Kenya Presentation from Development corridor & Investors • Central Development Corridor • Mtwara Development Corridor • SAGCOT	Prof. Damian Gabagambi Eng. Deusedit Kakoko Mr. Roger Kibona/Kanji Baraka Kenyan Representative Mr. Costaph Natay Mr. Joseph Simbakalia Mr. John Banga Ms. Rebecca Heperwa	
	13:00-14:00	TANZANICE Lunch break	All	
<u> </u>	13.00-14.00	Lulion bleak	ΛII	

14:00-15:30	 Research and information needs in the corridor How do we bridge profitable investments and conservation? What ecosystem services are available in the corridors that can support industrialization, how sustainable are they? What is the future of ecosystem services under climate change? How can we promote cross-sectoral planning and implementation? 	Moderator: Prof. Kashaigili
15:30-16:10	Tea break	All
16:10-16:30	Wrap up and announcement	Secretariat
16:30-16:45	Closing remark	Dr. Ngusaru

Annex 4 Agenda of planning workshop

Day 2	Time	Activity	Responsible person (s)
		Moderator	: Prof. Rob Merchant
Wednesday	8:00-8.30	Arrival and registration	All/ Secretariat
November 28,	8.30-8.45	Objectives for the Day	Prof. Neil Burgess
2018	8:45-9:00	Reflections from Day 1	Nyemo, Gladness,
2010	0.40 0.00	Reflections from Bay 1	Lilian & Ruth
			(Presenter Nyemo)
	9:00-10:00	Presentation of scoping	(i receiled regellie)
		study	UK Post-Docs team
		United Kingdom	Mr. Paulo Lyimo
		Tanzania	Ms. Lucy Waruingi
		 Kenya 	Dr. Han Meng
		China	
		Reflections, questions	
	10:00-10:15	Tea break	All
	10:15-11.15	Identification of	Moderator:
		research priorities –	Prof. Neil Burgess
		mapping research to	
		key problems (decision	
		criteria 1)	
	11:15-13:00	Identification of	Moderators:
		geographic scope- key	Lisen Runsten and
		corridors and case	Diego Juffe
		studies/sites	
		Discussion – do we have sufficient	
		diversity? (30 min)	
		Identification of	
		research priorities –	
		mapping research to	
		diversity (decision	
		criteria 2) (Maybe	
		break into groups to	
		have more detailed	
		discussion about	
		work in the selected	
	42.00 44.00	corridors?)	ΛII
	13:00-14:00 14:00-20:00	Lunch Capacity Ruilding	All All
	14.00-20.00	Capacity Building Session	All
		Presentation on CDAT	
		results (internal	
		capacity building) -	
		what training is needed	
		for the team?	
		Discussion on internal	
		capacity building	
		priorities.	

Annex 5 Mapping research areas to key issues

The following annex provides the list of 20 issues identified at the workshop and the research question each researcher proposes to address across in the 2019-2021 period. Participants were asked to match their research questions to the key issues. Colour cards were used to identify key areas of expertise: Water (blue), Climate Change mitigation (clear green), climate change adaptation (dark green), investments (pink), livelihoods and communities (cream), land use and land change (purple), ecosystem services and biodiversity (yellow), planning and implementation (orange).

These list below are only potential areas of research. Final research projects will be developed building from this list after considering the criteria described in Annex 1 and preparing a detailed work plan.



Cards showing key issues under the key priority areas

1. National decision making process

WWF: Analysis of policies influencing investments in development corridors

Lucy ACC: The decision making pathways of DCs – to what extent are these synergistic and cross-sectoral?

DO UoN: Policies and governance

2. Planning and implementation process

Kate LSE (option 1): Social imaginaries of development corridors

- Different actors' perspectives
- How do they align (also with SDGs)

- Explore whose voices are being mobilised (what would pro-poor perspectives look like?)
- Methods: discourse analysis, policy docs, ethnography
- Keen to involve China's role/perspective in this work

Kate LSE (option 2): To what extent do DCs provide opportunities for breaking out of siloed approaches? (i.e. to promote cross-sectoral/territorial planning).

- Are DCs currently planned in this way?
- Could this be adopted?
- Do DCs offer opportunities to mainstream SDGs (if so, through what mechanisms?)
- How do current policies interact?
- Methods: governance mapping, KI interviews
- Keen to involve China's role/perspective in this work

Kate LSE (option 3): Impact of DCs on local economic actors – how can DCs be designed to support SMEs?

- Impact of SAGCOT on value chains and access to services
- Do corridors offer routes to overcoming barriers in business enabling environments through market linkages and partnerships?
- What are successes and trade-offs?
- How has SAGCOT mobilised business development and resilience
- Do DCs offer a route to coordinating action across scales and sectors?
- Methods: value chain analysis, market analysis (interviews/case studies)
- Keen to involve China's role/perspective in this work

Diego (UNEP-WCMC): use of spatial data in decision making/planning in Kenya and Tanzania

WWF: Decision making processes around DCs. Civic space on influencing decisions and policies on investments

3. Ecosystem services and biodiversity conservation

No name (Purple): Scenarios of land use change

No name (Yelllow): Determining critical ecosystem services that ought to be monitored for possible impact by DCs.

No name (Yellow): impact of DC on biodiversity and ES in PA and KBAs

Neil UNEP-WCMC (Yellow): background knowledge and general help.

Diego UNEP-WCMC (Yellow): combined impacts of projects in one corridor (cumulative impact assessment.

Paulo SUA (Yellow): diversity, distribution and abundance patterns of insect along ecological gradient of SAGCOT.

Munishi SUA (Yellow): ES and Biodiversity: inventory, use/utilization, and sustainability

Tobias ACC (yellow): determine direct and indirect impact of DC on species

Tobias ACC (yellow): Influence of transport corridors on source-sink dynamics population dynamics of key conservation species.

Farida SUA (yellow): spatio-temporal diversity and abundance of fish catch along the river gradient

4. Hydrological processes and water resources assessments

No name: Land-use and land-use change and their impact on water resources in the development corridors

No name: the impacts of SGR on water quality and quantity

DO UoN: water quality and quantity (surface, ground, atm)

- Water and socio-economic systems
- Water and climate change

No name: Accesibility of water respources to the upcoming settlements in the DCs

Munishi SUA: water - forest/afforestation impact Smallholder cultivation valley bottoms impacts

Nyemo SUA: Hydrological and agroecological modelling of great Ruaha river catchment

No name: To what esxtent do we have and use data and adequate capacity to interpret and inform EIAs/SEAS in influencing DC design

5. Livelihoods/communities risks from corridors

Gedis&Chris Uni Cam (Cream): what challenges does the SGR present to the local communities.

DO UoN, Uni York, LSE (cream): Communities and water (participatory), tailor models, advance planning notice.

Valeith SUA (Cream): How is the expansion of forest plantation contributing to the local livelihoods?

6. Livelihoods/communities benefits from corridors

Lucy ACC: Participatory approaches in determining community aspirations for the DC and potential risks

Munishi SUA (orange): Case studies in adaptation and mitigation small holders

Farida SUA (cream): contribution of fish catch to the community livelihoods

No name (Cream): Are community land rights and access to resources considered in the conceptualization and designing of DC? Example: pastoral communities that require mobility.

WWF (cream): community engagement in investment decisions

WWF (cream): impact of DC investments on community livelihoods

Yinlong CAAS (cream): Case study on carbon neutral tea in small holder tea farm

Chris and Gedis Uni Cam (cream): what opportunities does the SGR present to the local communities.

Chris and Gedis Uni Cam (cream): how does corridor development affect social relations between different ethnic groups.

Chris and Gedis Uni Cam (cream): how does corridor development affect patterns of migration?

No name (cream): participatory approaches in determining community aspiration for the DC and potential risks.

No name (purple): land use change and livelihoods in the DC.

Chris and Gedis Uni Cam (cream): What are the expectations of SGR at the local community level (anticipation, etc).

7. Climate Change adaptation

Jessica Uni York: scenarios of land-use change

Christian LSE: scaling up of corridors pilot studies using hydrology-crop modelling in SAGCOT

- Assessing impact and viability (in terms of water resources) at basic scale
- Assessing adaptation potential (evaluate against cc)
- Assessing impacts on food production

Christian LSE: Can development corridors strengthen resilient food systems in sub-Saharan Africa?

- LAPSSET + SAGCOT
- Combining food production estimates from validated (regional/global) models with population-driven and location specific demand (incl urbanisation)
- Use open-source data on travel times and distances to connect supply and demand
- Assess clusters of similar climate variability (present and future climate driven)
- Evaluate whether corridors better connect supply and demand

DO UoN: Community adaptation and EBA

Xu CAAS: Capacity building activities for DC adaptation strategic plans

Laetitia LSE: scope for ecosystem services based adaptation

Tobias ACC: Climate change adaptation: impacts of DCs on the ability of wildlife to successfully respond to climate change

Zhao+Zhang CAAS: Efficient utilization of agricultural climatic resources

Mike CAAS: vulnerability and risk assessment and the construction of climate resilient adaptation technology system for sustainable food crop production along the SAGCOT corridor

Munishi SUA: adaptation (responses, capacity and vulnerability)

Xue han CAAS: adaptation strategy in the corridor level e.g. SAGCOT. Focus on sustainable agriculture

8. Climate change mitigation

No name: China invested renewable energy projects

No name: China invested industrial parks and communities

Munishi SUA: Mitigation practices

Jessica Uni York: scenarios of land-use change

9. Natural capital valuation

Doris SUA (cream): communities' willingness to pay for water conservation and payment for ES

Laetitia LSE (yellow): ES values for community livelihoods specifically within the Rufiji basin. Ties with community, land use change, water investment, planning.

Doris SUA (blue): conservation of water resources: how can water resources be conserved to ensure sustainable flow throughout the year and during different season of the year

10. Develop closer interaction with business/industry as entry point to change / Investment decision making

Chris/Gedis Uni Cam: What is the role of contractors in shaping local outcomes (community, environment, etc)? How much autonomy do they have to decide these outcomes?

Xiao Ning (CAITEC): Case study on sustainability of SGR – from perspective of China's foreign aid

Diego UNEP-WCMC: assess sustainability of investments in corridors. Standards and its application. Compare with best practice.

Jon/Christine Consultants: Role of screening tools and review of application of performance standards to corridor investments

No name: investments – sustainable investments using available ES and biodiversity

Swenja/Kate LSE: 3 options on planning all have links with investment and china role

11. Safeguards/ EIA/SEA

Jon/Christine Consultants: environmental assessment (EIA+SEA) applied to linear developments

Lucy ACC: To what extent do we have and use data and adequate capacity to interpret and inform EIAs/SEAs in influencing DC design

No name: Evaluation and monitoring of the proposed mitigation measures proposed by EIAs and SEAs

- 12. Support on agricultural technology to benefit communities no cards
- 13. Roadmap for greening corridors (e.g. LAPSSET) no cards
- 14. Drivers of corridor development

Lucy ACC (orange): Relevance of corridors to national development agendas, continental vision, eg. AU2063 and global agreements

15. Land-use change impacts on ecosystem services

Jessica Uni York (purple): scenarios of land use change in SGR

Valeith SUA (purple): impact of forest plantation/expansion on ES (provisioning)

Jessica Uni York (purple): characterising past (15 years) and future (2030, 2063) land use transformation. Example: along SGR catchment/boundary?

Munishi SUA (purple): land use impact on ES and biodiversity

Paulo SUA (purple): the implication of land use/ land cover change on insect diversity distribution and abundance pattern in SAGCOT.

No name (purple): analysis of historical changes in land use against protected land use (scenario)

Nyemo SUA (purple): impacts of land use and land cover changes on the hydrological response of great Ruaha river.

16. Impact scenarios that offer solution

Jessica Uni York (purple): characterising land use change along SGR

DO UoN (yellow) aquatic ecosystems impacts or/and scenarios

17. Voice and participation

Chris and Gedis Uni Cam (cream): to what extent are the local communities include in the planning and implementation of SGR

18. Transparency in investment processes

No name (dark green): China invested industrial parks and communities

Chris/Gedis Uni Cam (purple): who is land value change by the corridors developments

Chen CAITEC (pink): Case study on sustainability of SGR from perspective of China's foreign aid.

19. Provide big picture of corridors nationally - convene people

Munishi SUA (dark green): future of ES and biodiversity under corridor management and implementation

Jessica Uni York (purple): scenarios of land use change in SGR

20. Systems complexity - no cards

Annex 6 Capacity Building Needs Session

The results table of training needs session is presented in the table below. These results will be used to develop a capacity building plan for the project (see action points). The presentation is available in the workshop outputs folder, Day 1 here: DCP Launch presentations

Description	Theme	Requested by
Communication techniques to communicate research findings to policy engagement and how to use other medias for communication	Communication to achieve impact	WWF TZA
Inward investment and decision processing especially in China	Investments	WWF TZA
Ecosystem services, climate change adaptation and related policies	Policy	WWF TZA
Training on data management	Data	WWF TZA
Data presentation eg: Infographics (every one)	Data	WWF TZA
Understanding international investment policies and how they operate	Investments	WWF TZA
Lobbing skills and advocacy skills	Communication to achieve impact	WWF TZA
Cross learning among work packages	DCP project	WWF TZA
Social and Environment Impact assessment and monitoring	Biodiversity risk management for development	SUA
Integrated Natural Capital Assessment Tools	Natural capital	SUA

Data	SUA
Natural capital	SUA
Statistical analyses	SUA
Modelling and scenarios	UNEP-WCMC
Investments	UNEP-WCMC
Investments	UNEP-WCMC
GIS and remote sensing	UNEP-WCMC
Communication to achieve impact	UNEP-WCMC
DCP project	Chinese partners
Several	Chinese partners
DCP project	Chinese partners
Reseach methods	ACC, UoN
GIS and remote sensing	ACC, UoN
	Natural capital Statistical analyses Modelling and scenarios Investments Investments GIS and remote sensing Communication to achieve impact Communication to achieve impact Communication to achieve impact Communication to achieve impact Dop project Several DCP project

R statistics	Statistical analyses	ACC, UoN
Stakeholder engagement	A course has been suggested by Kate Gannon administered by the University of Bergen, Norway that can be useful for this training. The course is called Model-Based Socioeconomic Planning (GEO-SD 321).	ACC, UoN
Big data processing and analysis	Data	ACC, UoN
Modelling and scenario development	Modelling and scenarios	ACC, UoN
Technical training on the scenario tools which Chinese partners have expertise in	Modelling and scenarios	Uni York
Effectively engaging, influencing, and communicating with banks, investment policies and spatial zoning plans in the Chinese and African context	Communication to achieve impact	Uni York
Water / Adaption modelling tools that LSE and Prof Xu are thinking to apply	Modelling and scenarios	Uni York
Better understanding of relationships and roles in corridors – in order to help identify entry points for engaging with key actors	Communication to achieve impact	Chinese partners