Midterm Survey:
African Climate Leadership Program

Prepared by

Wanjiku Nganga, Ph.D.

**School of Computing & Informatics,
University of Nairobi**
wanjiku.nganga@uonbi.ac.ke

Nairobi, Kenya

June 2019

Executive Summary

This report presents the findings and recommendations of the midterm survey on leadership capacity of the *Strengthening Climate Change Research in Africa (AfriCLP)* Project funded by IDRC and managed collaboratively by the University of Nairobi, Kenya and University of Dar es Salaam, Tanzania.

The program's main programmatic objective is to develop the leadership capacity of African researchers, policy advisers and practitioners for advancement in current climate knowledge, long-term adaptation, decision-making and climate action thus improving the effectiveness of science-policy-practice interface for positive impact in society. The program aims to do this by supporting mid-career to senior level researchers, policy advisers/analysts and practitioners (climate innovators) to develop and test scalable Climate Change (CC) ideas and concepts thereby strengthening their leadership capacity. The program is divided into three streams namely Policy, Research and Climate Innovations, and has admitted thirty fellows, 10 under each track.

To develop the leadership capacity of the grantees, the program aims to provide track-specific technical training, mentorship, and financial grants to support the development of fellows' CC concepts. The program also seeks to establish a vibrant inter and intra regional CC network bringing together policy analysts, researchers and climate innovators from the continent as well as establishing linkages with the IPCC, so as to support and facilitate high impact collaborations between fellows and other CC experts.

The purpose of this survey was to assess the status of CC leadership capacity development at the halfway mark of program implementation and establish whether sufficient progress is being made to achieve the program's programmatic objectives by the end of the program. By comparing current status to the baseline, we are able to determine if fellows are growing in their CC leadership journeys, and to highlight areas where extra support needs to be provided to ensure that all fellows attain the expected high CC leadership capacity in their respective domains.

Key Findings

The midterm survey finds that all tracks have improved on their average CC leadership capacities and that on the individual levels, all fellows with the exception of one, have maintained or improved upon their baseline status. The female fellows however faired slightly poorer than their male colleagues, though they nonetheless registered an improvement over their baseline performance. With sustained effort in undertaking required CC Leadership Capacity Building (LCB) activities, it is highly likely that most fellows will increase their CC leadership capacities by the end of the program. The program therefore remains on track to meet all set objectives and outputs, but with targeted interventions on specific LCB aspects

where performance across the board was poor. The table below summarizes the change[1] in CC leadership capacity between the baseline and midterm surveys.

	Evaluation Period	Climate Innovations	Policy	Research
Average CC Leadership Capacity Score	Baseline	**2.98** *(low)*	**2.64** *(low)*	**3.10** *(average)*
	Midterm	**3.13** *(average)*	**3.12** *(average)*	**3.58** *(average)*
# of fellows with *low* CC Leadership Capacity	Baseline	7	7	6
	Midterm	5	4	1
# of fellows with *average* CC leadership capacity rating	Baseline	2	3	1
	Midterm	2	5	9
# of fellows with *high* CC leadership capacity rating	Baseline	1	0	3
	Midterm	2	0	0

Further, there has been excellent progress on engagements with the IPCC with 4 fellows being appointed to serve as expert reviewers as follows:

- Mr. Paul Basudde (Policy track, Uganda) is an Expert Reviewer for the Second Order Draft of the IPCC Special Report on Climate Change and Land (SRCCL);

- Dr. Leonard Chauka (Research track, Tanzania) is an Expert Reviewer for Chapter 5 on Ocean Sciences (WG II);

- Mr. Erick Omollo (Research track, Kenya) is an Expert Reviewer for Chapter 8 on Poverty, Livelihoods and Sustainable Development (WG II); and

- Mr. James Wafula (Climate Innovations track, Kenya) is an Expert Reviewer for Chapter 8 on Poverty, Livelihoods and Sustainable Development (WG II).

These appointments will no doubt raise the visibility of the program and if properly exploited, open up further opportunities to insert more African expert voices on the foremost global platform on matters climate change.

---

[1] It is important to note that the midterm evaluation considers only LCB activities performed and outputs attained during the period February 2018 to February 2019 whereas the baseline considered the 5 years prior to joining the AfriCLP program. The final CC leadership capacity rating at the end of the project will take into account all such activities and outputs attained during the 3-year project period, and compare these with the baseline ascertained at the start of the project.

Recommendations for Program Implementation

The following is a summary of the recommendations deriving from the midterm evaluation findings for consideration by the program's leadership, as they continue with the program's implementation:

i.   Specific capacity gaps have been highlighted and these should be assessed systematically by the Program management team and appropriately targeted interventions be designed and delivered as appropriate, so as to support the fellows in further developing their leadership capacities.

ii.   Undertake individualized leader development assessments for fellows to help them identify specific challenges or psychosocial capacities at a personal level that hinder effective engagement and relationship building, followed up with personalized coaching to address these challenges.

iii. Explore innovative strategies to catalyse a practice mind-set and orientation that emphasizes uptake and utilization of research and policy outputs, with a view to increasing the development of evidence-based climate solutions.

iv.   Identify appropriate strategies to support production of peer reviewed publications given that over 50% of fellows did not produce a single publication, and noting that this is one of the key expected outputs of the program. The same applies to production of track-specific technical outputs such as innovations, adaptation guidelines, training materials and policy documents.

v.   Devise and implement innovative strategies to help fellows diversify their dissemination channels and synthesize their outputs for different audiences, with particular attention to the general public and communities, as key beneficiaries of CC-related work.

vi.   Follow-up the female fellows more closely to identify reasons that may be impeding their performance, and work to provide targeted support to them as appropriate.

Table of Contents

List of Tables

List of Figures

List of Acronyms

AfriCLP   African Climate Change Leadership Program

AR   Assessment Report

AWARD   African Women in Agricultural Research and Development

CC   Climate Change

CoP   Community of Practice

CCNA   Cisco Certified Network Associate

CI   Climate Innovations

IPCC   International assessments of the Inter-Governmental Panel on Climate Change

IT   Information Technology

IDRC   International Development Research Centre

LCB   Leadership Capacity Building

MoU   Memorandum of Understanding

UNFCCC   United Nations Framework Convention on Climate Change

1.0   Background

1.1   Description of the Program

The Program – *Strengthening Climate Change Research in Africa (AfriCLP)* seeks to develop the leadership capacity of African researchers, policy advisers and practitioners for advancement in current climate knowledge, long-term adaptation, decision-making and climate action thus improving the effectiveness of science-policy-practice interface for positive impact in society.

The International assessments of the Inter-Governmental Panel on Climate Change (IPCC) has singled out Africa as a region that is highly vulnerable to climate variability and climate change. This is attributed to Africa's low adaptive capacity despite the multiple stresses brought about by climate change (CC). The impacts projected to affect the continent include increased water stress that would negatively impact access to water and consequently, livelihoods; reduced agricultural yields, growing season length, and reduced area suitable for crop agriculture, which would adversely affect food security and exacerbate malnutrition; decreased freshwater fisheries; and impacts of sea level rise on large populations in coastal areas. Particularly vulnerable are semi-arid and arid areas of Africa. There is therefore an urgent need to build and strengthen Africa's resilience to CC-induced shocks and stresses, and this will be achieved by designing and implementing effective climate adaptation strategies, to be included in public and private development plans and policies.

Science-informed policy, planning, and practice will be necessary to ensure that development is more resilient and less vulnerable to the negative impacts of climate, thus fostering sustainable development. There is therefore a need to broker knowledge at the science-policy-development interface and build local climate change leaders who can shape understanding of the extent and severity of climate-related stressors on African economies and ecosystems, and propose solutions on how countries can build resilience to these impacts. It is worth noting that the global climate agenda, as well as the international assessments of the IPCC on Africa, are dominated by researchers and experts from the developed economies, with minimal participation or contribution from African researchers or practitioners. Promoting African-led science and scientific capacity is thus critical to strengthening and sustaining Africa's resilience to CC, and AfriCLP program seeks to address this notable leadership capacity gap.

The Program seeks to address this leadership capacity gap by supporting thirty (30) mid-career to senior level researchers, policy advisers/analysts and practitioners (climate innovators) to develop and test scalable CC concepts and strengthen their leadership capacity. The Program, whose duration is 36 months, is divided into three streams namely Policy, Research and Climate Innovations, and is a collaborative effort between the University of Nairobi and the University of Dar es Salaam.

1.2   Program Objectives, Expected Outcomes and Outpus

The program seeks to achieve the following specific objectives:

(a) To strengthen the capacity of national and regional mid-career to senior climate change policy advisors/analysts to understand how to interpret and apply climate model projections, inject the best available scientific research/empirical knowledge/data into policy processes and decision-making
(b) To engage the science and policy communities and develop a shared vision of research and assessments needed to serve climate change decision-making needs
(c) To advance national and regional climate change assessments and research on Vulnerability, Impact and Adaptation (VIA) on thematic areas informed by the gaps identified from key sources (e.g. 5thARs, IPCC, AfDB, AU and IGAD) that can contribute to the future rounds of IPCC's Assessment Reports and enhance regional and national planning for climate change
(d) To further improve and implement innovative climate solutions that are relevant and have the highest potential for building resilience to climate change and for large scale impact in the communities or organizations in which they are implemented
(e) To enhance synergies between program streams through integrative program research, practice and policy activities.

The key expected outcomes of this program are:
(a) Enhanced capacity in national and regional agencies in climate change to formulate, implement, monitor and evaluate policies
(b) Enhanced national and regional climate change policies
(c) Sustainability of Policy Advance Institute
(d) Increased fellows influence in policy planning and implementation by being consulted for advice or taking part in climate change planning and implementation
(e) Increased use of research evidence to shape climate solutions
(f) Enhanced impact of climate solutions
(g) Increased partnerships and collaborations between fellows in research, policy and practice
(h) Enhanced skills, knowledge and confidence in climate change information
(i) Enhanced and sustainable climate change leadership capacity.

The outputs to be produced include:
(a) Policy briefs
(b) Peer-reviewed journal papers and book chapters
(c) Working papers on climate change assessments and implementations
(d) Increased contribution to AR6 (in terms of content and membership of AR6 Committees)
(e) Curricula on climate change policy planning and implementation
(f) Dissemination reports
(g) Fellows reports
(h) Graduates of the leadership program
(i) M&E reports.

1.3   Purpose of the Midterm Survey

This program has set out a clear goal, objectives, expected outputs and outcomes, whose attainment will be evaluated at the end of the program's 3-year lifecycle. Monitoring and evaluation during the program's lifecycle is important so as to assess whether the program remains on track to achieve its end-term objectives. This midterm survey, conducted 15 months after the program's inception, seeks to assess the progress made towards meeting the program's objectives, by the midway point of the program, and bring to light aspects of the program that may need strengthening to hasten progress, for areas where progress is assessed to be slow. By comparing current LCB status to that ascertained during the baseline survey, this midterm evaluation seeks to identify areas where the fellows may be falling behind or not making much improvement, necessitating requisite interventions.

2.0   Evaluation Approach and Methods

2.1   Conceptual Framework for evaluating CC LCB

The midterm evaluation uses the conceptual framework and evaluation criteria developed during the baseline survey (Ng'ang'a, 2018) and adopted for subsequent monitoring and evaluation of this program. The conceptual framework used to evaluate CC LCB combines Meijerink & Stiller's (2013) Integrative framework for climate change leadership which identifies five essential leadership functions which need to be strengthened in practices of climate adaptation, and Cooke's (2005) capacity building framework which guides the systematic evaluation of capacity development at the individual, team, institutional and network levels. The evaluation criteria derived thereof is listed in Table 1: Evaluation Criteria. At the individual level, the program distinguishes between CC leadership capacity in the areas of climate innovations (CI), Policy and Research, and this translates to differentiated competencies and outputs for the three tracks. Table 2 reorganizes the global evaluation criteria given in Table 1, indicating which indicators are common to all three tracks, and which ones are track-specific.

Table 1: Evaluation Criteria

Structural Level	LCB Focus	Criteria	Indicators
Individual level *(Fellows)*	Developing the Individual	Skills and confidence building	• Professional qualifications • Promotion or change in duties • Professional enthusiasm • Acquired technical skills and competencies and how acquired • Evidence of progressive leadership skill development • Participation in leadership capacity building activities • Leadership perceptions and awareness
		Sustainability and continuity	• Participation in leadership capacity building activities
	Influencing Others *(team, organization, network)*	Enabling function	• Evidence of confidence building through sharing new skills with others • Mentorship
		Adaptive function *(incorporates Cooke's Skills and confidence building; Sustainability and Continuity)*	• Applying existing skills in new situations; • New cc research/policy/practical solution undertakings
		Connective function *(incorporates Cooke's Development of linkages and collaborations)*	• Working with other professional groups in research/policy/practice work • No. of collaborative projects with other grantees • No. of co-authored publications • Participation in intra-regional and extra-regional/International climate related networks • Participation in partnerships and collaborations
		Dissemination function *(incorporates Cooke's Close-to-practice research; Appropriate dissemination)*	• Research uptake evidence (Practice-oriented outcomes, policy-oriented outcomes) • Significance of research contribution • No. of community outreach activities • No. of refereed publications and conference presentations; • No. of seminar presentations; • No. of presentations in national/regional workshops • No. of non-traditional dissemination activities (blog postings – both project and personal; photo journal; personal stories; newspaper articles; policy briefs; community-level demonstrations/presentations).
		Political-Administrative function[2]	• Successful climate change project implementations • Project management skills
Institutional / Regional level	Developing institutional/ regional leadership capacity	Sustainability and Continuity	• No. of grantees who have successfully implemented their projects • No. of grantees working in/affiliated to a climate change institution or working in CC-related role • No. of grantees promoted within or outside their institutions • Nature of LCB activities undertaken by grantees and their mentors.
		Investments in Infrastructure	• Institutionalization of climate project results in the institution/region
Network level *(AfriCLP)*	Fostering collaboration	Development of linkages and collaborations	• Establishment of intra-regional networks • Establishment of intra-regional partnerships and collaborations; • Number of joint (national or regional) climate proposals involving program grantees and mentors • MoUs signed between collaborating institutions • Membership of, and participation in the 'October Group' network
		Appropriate dissemination	• Program website (update frequency; currency of information; contribution of website content by grantees, mentors, program management; access statistics e.g. from Google; backlinks; social media activity)

---

[2] In the context of this program, we focus only on the administrative component of this function, since the political component is reserved for elected positional leaders.

Table 2: M&E Indicators contextualized per track

#	Evaluation Criteria	Description		
1.	*Skills and Confidence Building*	*Effective LCB results in acquisition of leadership and technical skills through training, mentorship and supervision, and confidence, which is built gradually through practical utilization of the acquired skills and collaborating with other professionals*		
	Indicators common to all tracks	**Indicators specific to CI track**	**Indicators specific to Policy track**	**Indicators specific to Research Track**
	• Professional qualifications • Employment status • Nature of job responsibilities • Knowledge of the current state of scientific knowledge relevant to climate change as contained in IPCC's Assessment Reports (ARs) • Participation in LCB activities (mentorship) • Leadership perceptions, awareness and self-reflection	• Level of competence and confidence in key technical skills relevant to CC Innovations (Designing and undertaking Action Research in a climate change innovations context, Designing and/or choosing innovations that effectively address identified CC challenges/gaps, Implementation of climate innovations in society and Scaling the adoption of climate innovations and assessing impact) • Participation in CI LCB activities (Undertaking technical CI activities such as developing climate solutions, piloting climate solutions, and participating in CI projects)	• Participation in policy LCB activities (Undertaking technical policy-related activities such as developing and/or reviewing policy documents, briefs etc.)	Participation in research LCB activities (Teaching university-level courses, undertaking research projects)
2.	*Sustainability and Continuity*	*Effective capacity building should contain elements of maintenance and sustainability of the acquired skills and structures, to ensure that individuals consolidate the built capacity through practice. As suggested by Crisp et al. (2000), capacity can be sustained by providing opportunities to apply and extend the acquired research skills.*		
	Indicators common to all tracks	**Indicators specific to CI track**	**Indicators specific to Policy track**	**Indicators specific to Research Track**
	• Participation in LCB activities (proposal writing)	None	None	None
3.	*Enabling Function*	*The enabling function of leadership aims at creating the conditions that support and catalyze the emergence of new knowledge and innovation. Through this function, leaders create the necessary conditions for other parties to do their work, to engage in change processes and to develop and experiment with new approaches.*		
	Indicators common to all tracks	**Indicators specific to CI track**	**Indicators specific to Policy track**	**Indicators specific to Research Track**
	• Capacity development (coaching and	None	None	None

	mentorship)			
4.	***Adaptive Function***	*This function entails the generation of new ideas and innovative approaches that enable adaptation to changing circumstances. It is through this function that new knowledge and innovation is generated and put to use. Given that there are no leadership tasks defined for this function since the new knowledge is generated as a result of the interactions between diverse individuals and teams within a network, we instead assess the direct contribution to new knowledge by measuring knowledge outputs.*		
	Indicators common to all tracks	**Indicators specific to CI track**	**Indicators specific to Policy track**	**Indicators specific to Research Track**
	• Number of refereed publications (journal articles, book chapters and books)	• Number of innovations/climate solutions	• Number of policy documents developed or reviewed	• Number of research studies/reports
5.	***Connective Function***	*The connective function of leadership is about making connections between various stakeholders. It supports the integration of actions from different network members, towards a shared vision. Indicators of an individual's ability to connect, is in networking, the establishment of linkages and collaborations, and in the convening of diverse parties to perform various tasks and activities collaboratively.*		
	Indicators common to all tracks	**Indicators specific to CI track**	**Indicators specific to Policy track**	**Indicators specific to Research Track**
	• Co-authorship of publications • Participation in intra-regional and extra-regional/international climate related networks • Participation in partnerships and collaborations • Nature, frequency and extent of collaboration • Knowledge of, and interaction with IPCC focal persons	• Level of competence and confidence in key skills relevant to the *connective* function of CI leadership (stakeholder identification, analysis and engagement)	None	None
6.	***Dissemination Function***	*This function entails creating awareness on newly developed ideas and approaches by ensuring that this information and knowledge is disseminated into the network of positional leaders, key decision makers as well as beneficiaries.*		
	Indicators common to all tracks	**Indicators specific to CI track**	**Indicators specific to Policy track**	**Indicators specific to Research Track**
	• Presentations in public fora • Frequency and number of new media (non-traditional) dissemination activities	• Knowledge dissemination within communities through piloting climate solutions	None	• Level of competence and confidence in key skills relevant to the *dissemination* function of research leadership (scientific writing and communicating scientific results to cc researchers, policy makers and practitioners)
7.	***Administrative Function***	*This function entails the development and communication of visions on climate change adaptation, organizational planning, and the generation and allocation of resources which are needed for realizing these visions and plans.*		

	Indicators common to all tracks	Indicators specific to CI track	Indicators specific to Policy track	Indicators specific to Research Track
	• Experience in resource mobilization • Experience in undertaking CC related projects • Level of competence and confidence in key skills relevant to the *administrative* function of CC leadership (Advocacy, influencing and opinion shaping in matters of CC; Proposal writing, grant writing and resource mobilization for climate-related work; CC-related project management)	None	None	None

2.2   Methodology

From the evaluation criteria, we developed a draft questionnaire, which was reviewed by the program management, and feedback received was incorporated. The period of interest was January 2018 through to March 2019, and respondents were required to provide information on LCB activities and outputs attained during this period. The finalized questionnaire was published online and administered as an online form.

2.2.1   Sampling and Data Collection

The program awarded 30 fellowships across the 3 tracks, and we set out to survey the entire population of 30 fellows. The online survey was available to the respondents during the period 1st March 2019 to 11th April 2019. We received 28 responses, yielding a 93% response rate - 9 CI fellows (90%), 9 policy fellows (90%) and 10 research fellows (100%). The full list of respondents is provided in Appendix A.

2.2.2   Data Analysis and Evaluation

The data collected was derived based on the indicators and assessment areas given in Table 2. Data analysis proceeded by grouping all indicators for a given assessment criteria and employing a mix of quantitative and qualitative analysis techniques to ascertain the midterm status of LCB at the individual, institutional and network levels. Appendix B details the evaluation matrix that is used to assess the leadership capacity for each LCB aspect and indicator, and that is used to obtain the overall composite assessments for CC leadership capacity at the individual level. During analysis, each recorded response is given a leadership capacity rating of *low*, *medium* or *high*, using the evaluation matrix to determine the appropriate rating. Table 3 shows how these ratings are converted to a numerical value to facilitate computation and eventual rating of attained leadership capacity.

Table 3: CC leadership capacity analysis and rating scales

Analysis of respondent's responses		Determination of CC leadership capacity rating	
Response Rating	Equivalent Numerical value	Calculated Average Score	CC Capacity Rating
Low	1	<3 (1.0 – 2.9)	*Low*
Med	3	<4 (3.0 – 3.9)	*Med*
High	5	4+ (4.0 – 5.0)	*High*

The findings of the analysis are presented in the next section. These findings show the midterm status of CC LCB across the three tracks, and where compared with the baseline status, show areas of improvement or slow progress towards the desired end term outputs and outcomes.

3.0 Midterm Survey Findings

The core objective of this program is to develop leadership capacity in climate change related research, policy and climate innovations solutions development. In this section, we assess the progress made in building CC LCB since the inception of the program at the individual, institutional and network levels. The individual leadership capacity is assessed per track. We present our findings on the same, organized in line with the assessment criteria given in Table 2: M&E Indicators contextualized per track

3.1 Leadership Capacity: Midterm status at the Individual Level

3.1.1 Skills and Confidence Building

To assess the fellows' skills and confidence in CC-related leadership, we consider the following indicators:

i. **Professional qualifications:** Here we sought to find out if fellows had attained additional academic qualifications or professional certifications, an indication of skills and competency development, and the findings are shown in Table 4.

	CI Track	Policy Track	Research Track
No. of fellows who have attained professional qualifications	3 out of 9 fellows (33%)	3 out of 9 fellows (33%)	4 out of 10 fellows (40%)

Table 4: Attainment of academic qualifications and professional certifications

The list of certifications and academic qualifications attained during the evaluation period is given in Appendix C: Qualifications and Certifications and cover a diversity of knowledge domains such as *land governance, communications, Intellectual property, entrepreneurship, climate finance and climate change management*. Of note here is one policy fellow who attained his PhD qualification in July 2018.

ii. **Employment Status:** With this indicator, we sought to establish how the fellows are professionally engaged, and if employed within the same institution as they were prior to joining the fellowship, whether they had been promoted or had an upward change in job roles and responsibilities. As shown in Figure 1, majority of the fellows (18 out of 28) across all tracks continue to be employed in the same organizations as they were before the fellowship. Nonetheless, 12 of these (2 CI, 5 Policy and 5 Research) have either been promoted or had higher responsibilities assigned to them. Six fellows have since changed employers with the CI fellow serving as a coordinator of a program initiative for a development agency, one policy fellow is now serving as a manager in a government institution, the other policy fellow is serving as an agriculture consultant in a development agency, while the 3 research fellows have taken up new positions (lecturer, assistant professor and qualitative research expert in a CC and gender project) in universities. Of the fellows who changed jobs or had their roles revised upwards, 43% highly attributed this achievement to the AfriCLP program. The other 48% and 9% gave a medium and low attribution respectively. One policy fellow is currently pursuing PhD studies on a full-time basis.
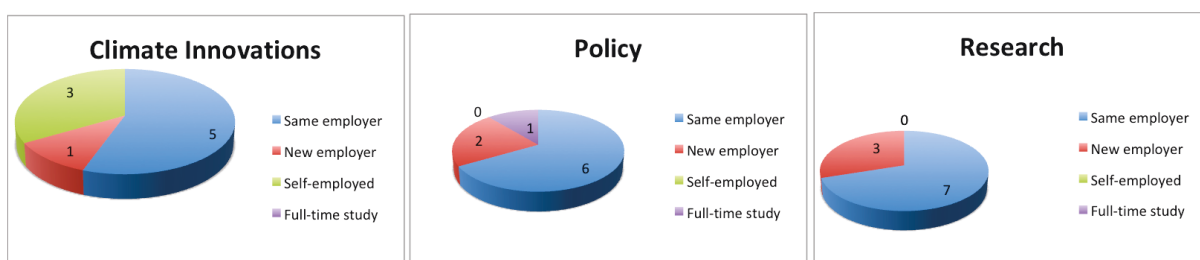
Figure 1: Fellows' professional engagement

iii. **Nature of Job Responsibilities:** All of the employed or self-employed fellows continue to carry out roles that are firmly in the CC domain. Table 5 shows the types of institutions and associated positions/roles for fellows who have new professional engagements or who have had an upward change in roles and responsibilities.

Table 5: Fellows' Professional Engagement - Type of Institutions and Roles

Track	Type of Institution	Title/Position
Climate Innovations	Development Agency	Coordinator
		Regional Expert
	Research Institution	Director of the Laboratory of Hydrobiology, Ecotoxicology, Sanitation and Climate Change
	Self-employed	Consultancy in African Renewable Energy Markets
Policy Track	Government Ministry	Value Chain Specialist (climate smart agriculture)
		Senior Policy Analyst
		Climate Change Expert for an Agricultural Sector Investment Programme
		Manager, Climate Finance and Sustainability
	Development Agency	Agriculture consultant
	Research Institution	Professor
		Assistant professor
Research Track	Research Institution	Lecturer
		Assistant professor
		Qualitative research expert in a CC and gender project
		Head, Renewable Energy Study group
		Research Fellow
		Post-doctoral research scholar
		Senior lecturer
	Development Agency	Assistant policy advisor

iv. **Level of competence and confidence in track-specific technical skills:** Using a scale of 1 (poor) to 5 (exceptional), fellows were asked to rate their level of knowledge, skills and competency in key technical skills relevant for leadership in their area. The results are summarized in Table 6, with each entry indicating the percentage of grantees who rated their competence/confidence as either *poor to average* or *good to exceptional*, for each of the track-specific knowledge areas.

Climate Innovations Skills/Knowledge area	Poor to Average	Good to Exceptional
Designing and undertaking Action Research in a climate change Innovations context	0%	100%
Designing and/or choosing innovations that effectively address identified CC challenges/gaps	0%	100%
Implementation of climate innovations in society	11%	89%
Scaling the adoption of climate innovations and assessing impact	22%	78%
Policy Skills/Knowledge area	**Poor to Average**	**Good to Exceptional**
Designing and undertaking Action Research in a climate change Policy context	22%	78%
Climate change risks with emphasis on local and regional contexts	33%	67%
Climate change mitigation and adaptation strategies	0%	100%
Research Skills/Knowledge area	**Poor to Average**	**Good to Exceptional**
Designing and undertaking research studies in a climate change research context	0%	100%
Climate variability and change modeling at various times and space scales	40%	60%
Tools, methods and techniques for climate data analysis	10%	90%
Approaches to local and regional climate studies using existing climate analysis methods	10%	90%
Efficiently planning for experiments and surveys	10%	90%

Table 6 shows that across all tracks, most of the fellows rated their skills and competence in track-specific technical skills as good to exceptional. The only exceptions to this was *climate variability and change modelling at various times and space scales* for the research track, and *climate change risks with emphasis on local and regional contexts* for the policy track where 4 out of 10 fellows and 3 out of 9 fellows indicated a poor to average rating, respectively. Further, as Figure 2 shows, fellows have made significant progress with respect to this indicator as compared to the baseline status. 94% of those fellows attaining a *high* rating attributed this achievement to the fellowship as summarized in Table 7.

Table 7: Attribution of technical skills competence achievement

	Climate Innovations	Policy	Research	All Tracks
High	100%	96%	88%	**94%**
Medium	0%	4%	12%	**6%**
Low	0%	0%	0%	**0%**

Figure 2: Baseline vs. Midterm rating of competence in track-specific technical skills
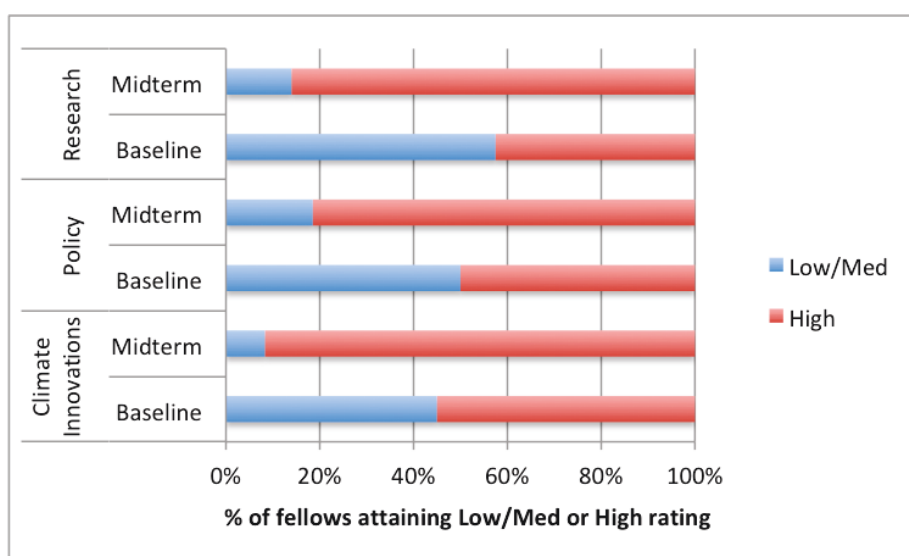
v. **Knowledge of the structure, process and schedule of IPCC's 6th Assessment Report (AR6):** The IPCC's Assessment Reports document the current scientific knowledge on climate change at a global level enabling stakeholders to understand climate change, its potential impacts, and options for adaptation and mitigation. Part of this program's objectives is to increase the participation of African researchers and practitioners in the global climate agenda, and specifically by increasing contributions from Africans to the IPCC's assessment reports on Africa. To gauge the strategic readiness of fellows to contribute to the sixth AR, fellows were asked to rate how well versed they are with structure, process and schedule of AR6. Their responses are summarized in Table 8, which also contrasts their knowledge levels on AR5 as assessed at the baseline.

Table 8: Knowledge on AR5 contents and AR6 structure, process and schedule

Rating	Climate Innovations Track		Policy Track		Research Track	
	AR5	AR6	AR5	AR6	AR5	AR6
Not at all versed	10%	11%	20%	11%	30%	10%
Fairly versed	50%	89%	50%	78%	30%	80%
Very well versed	40%	0%	30%	11%	40%	10%

Majority of the fellows across all tracks report being only fairly versed with the structure, process and schedule of the upcoming AR6. There are also 3 fellows, 1 per track who indicated not being versed at all with the sixth Assessment Report. Combining this finding with that on AR5 which showed also moderate familiarity with AR5, it is clear that this is an area where more awareness creation, support and strategic guidance is required so as to expose and motivate the fellows to set AR contribution as one of their CC leadership goals, and to work towards achieving this goal.

vi. **Participation in LCB activities:** Skills and competencies are developed through training or experiential activities where one learns through doing. With increased knowledge, skills and competencies, one gains the confidence to share this knowledge with others. With this indicator, we assess activities undertaken by the fellows that help build their knowledge and competencies e.g. trainings, consultancies and carrying out

CC-related projects, as well as activities where the fellows share their knowledge and experience with others e.g. mentorship and coaching, and conducting professional trainings. We also assess track-specific LCB activities. For all activities, we also assess their frequency of participation in a given activity, as an indication of strengthening leadership capacity development.

a. **(New) skills development through training:** Here we sought to establish if fellows have learnt new skills either through formal training or self-learning, and the findings are presented in Figure 3. With the exception of 4 fellows (1 CI, 1 Policy and 2 Research), all the other fellows have participated either in trainings or self-study and acquired new CC-related skills. Table 9 shows that the majority of fellows who attained a *high* rating on this indicator across all tracks (79%) strongly attributed this achievement to the program. Appendix D: Trainings and Courses Undertaken lists the trainings undertaken by the fellows during the period under evaluation.

Figure 3: Rating of skills development LCB activity
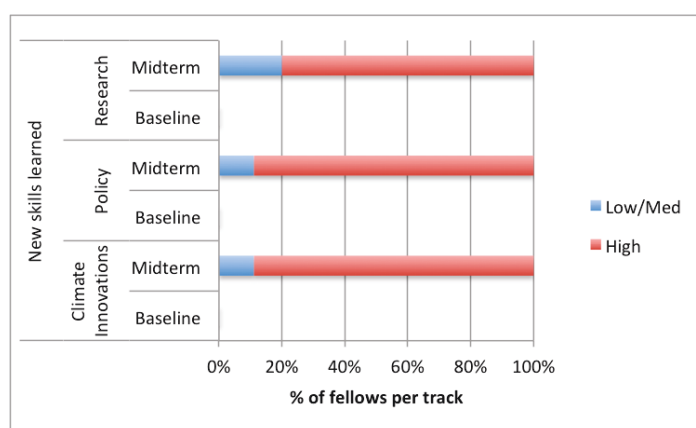
Table 9: Attribution of skills development achievements

	Climate Innovations	Policy	Research	**All Tracks**
High	75%	87%	75%	**79%**
Medium	25%	13%	25%	**21%**
Zero	0%	0%	0%	**0%**

b. **Mentorship:** As shown in Figure 4, policy and research fellows have improved considerably with respect to mentoring or coaching other professionals in the domain of CC. The CI track has not made significant improvement on this indicator with 6 out of the 9 fellows receiving a low to medium rating. Table 10 shows the extent to which fellows who attained a *high* rating on this indicator attribute this achievement to interventions in this program. The research and policy fellows strongly attributed their good performance in mentorship to the program, unlike the CI fellows where a majority indicated only a medium attribution. A listing of mentorship and coaching activities undertaken by the fellows is included in Appendix E: Mentorship Activities

Figure 4: Rating of LCB Activity - Mentorship
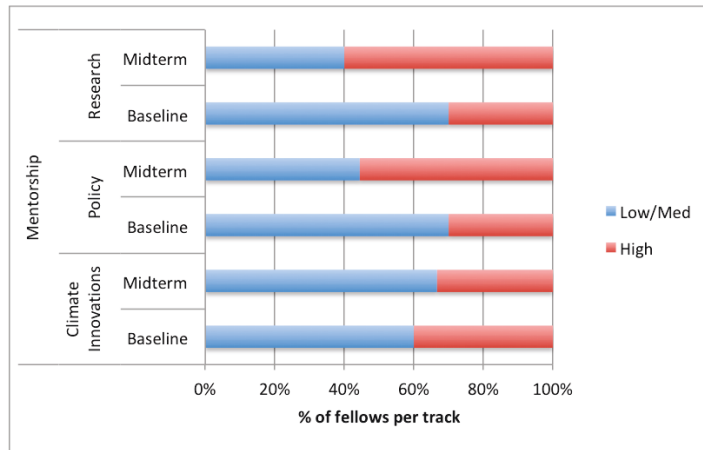
Table 10: Attribution of mentorship achievements

	Climate Innovations	Policy	Research	All Tracks
High	33%	80%	83%	**72%**
Medium	67%	20%	0%	**21%**
Low	0%	0%	17%	**7%**

c. **Delivering professional CC-related trainings:** Capacity building of other professionals is a hallmark of confidence in one's skills and knowledge. In addition to mentorship, we sought to establish if fellows had conducted or facilitated such professional trainings, and whether any of the AfriCLP fellows had been part of the trainee audience. The full listing of these trainings is given in Appendix F: Professional Trainings Only one fellow reported having had an AfriCLP fellow participating as a trainee in one of the trainings they delivered. The findings (see Figure 5) show that a significant number of fellows across all tracks (4 out of 9 for CI and policy, and 6 out of 10 for research) have not participated in delivering professional trainings. Table 11 shows the attribution information for fellows who attained a high rating in this indicator. We note that only in the research track did majority of the fellows attribute the contribution of this program to their being able to deliver professional trainings.

Figure 5: Rating of LCB activity - Delivering professional trainings

Figure 5: Rating of LCB activity - Delivering professional trainings
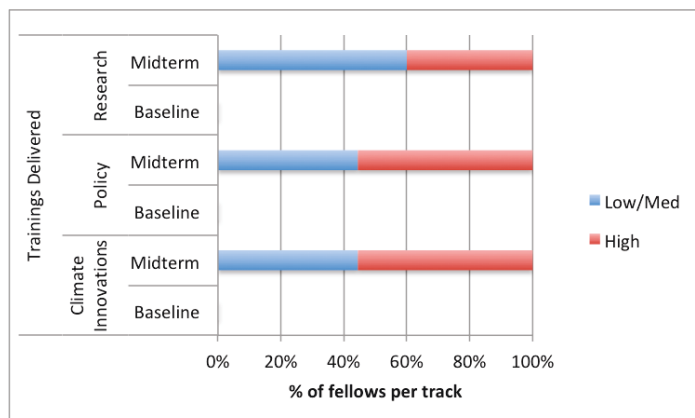
Table 11: Attribution of professional trainings achievements

	Climate Innovations	Policy	Research	**All Tracks**
High	33%	20%	75%	**42%**
Medium	0%	80%	0%	**33%**
Zero	67%	0%	25%	**25%**

d. **Undertaking technical LCB activities:** Technical LCB activities build skills and confidence experientially, through a learn-by-doing philosophy. As shown in Table 2, these technical activities are track-specific, and performance on this indicator for the three tracks is captured in FiguresFigure 6,Figure 7 andFigure 8.

Figure 6: Performance rating on technical LCB activities for the Climate Innovations Track
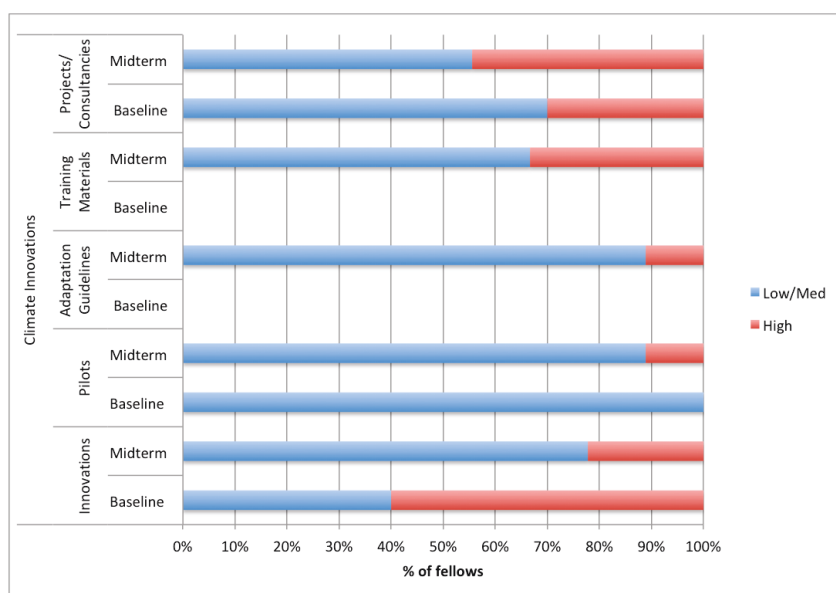
A quick glance at Figure 6 shows that the majority of the CI fellows have not participated effectively in technical LCB activities with only 2 fellows reporting broad experience in developing climate solutions, 3 fellows in producing CC-related training materials, and 1 fellow in developing adaptation guidelines. Only one fellow has a *high rating* in piloting climate solutions. There has however been a significant improvement over the baseline with respect to carrying out CC-related innovation projects and consultancies with 44% of the fellows attaining a *high* rating as compared to only 30% at the baseline.
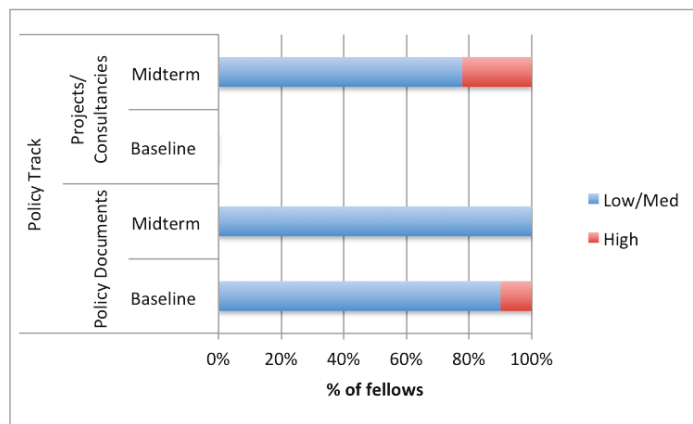
Five out of the nine policy fellows did not participate in producing any policy-related document, and the 4 who did, only generated 1 output which translates to a medium rating, as shown in Figure 7. Looking also at the low performance recorded at the baseline, this is one area where more effort needs to be placed to ensure that the fellows in the policy track make substantial improvement in this critical and foundational indicator. Likewise, only one fellow demonstrated high capacity in the activity of undertaking policy-related projects.

Figure 8: Performance rating on technical LCB activities for the research track
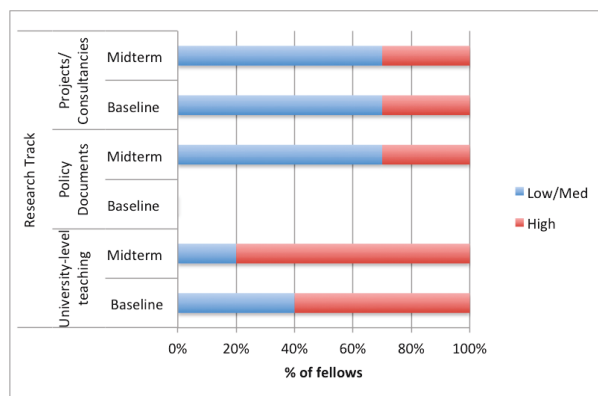
As shown in Figure 8, majority of the research fellows (80%) have actively participated in delivering university-level courses, with a marked improvement over the baseline where 4 fellows attained a poor to average rating for this activity. Only 3 out of the 10 fellows attained a high rating with respect to generating policy-related documents, and a similar number for wide experience in implementing CC-related projects or undertaking CC-related consultancy assignments.

The baseline evaluation allowed us to ascertain the nature of LCB activities that the fellows had undertaken in the past, and the experience they had for each type of activity. Considering that the baseline covered a longer duration of the 5 years prior to joining the program, it is not surprising that the performance recorded during this midterm evaluation which covers only a period of 1 year, is

lower than that of the baseline. It is however expected that as fellows continue to develop their leadership capacities and with the various interventions of the program that avail them with new opportunities to participate in varied LCB activities, that most of the fellows will match, if not surpass, their baseline status over the program's three year implementation period.

Attribution assignments for this indicator across the three tracks are summarized in
Table 12, and show a strong attribution to the program for achievements made on technical LCB activities across all tracks.

Table 12: Attribution for achievements in technical LCB activities

Climate Innovations Track	High	Medium	Zero
Developing Innovations (Climate solutions)	100%	0%	0%
Piloting climate innovation solutions	100%	0%	0%
Preparing adaptation guidelines	100%	0%	0%
Preparing CC-related training materials	0%	100%	0%
Undertaking CC-related projects/assignments	33%	33%	33%
Policy Track	**High**	**Medium**	**Zero**
Producing policy-related documents	N/A	N/A	N/A
Undertaking CC-related projects/assignments	100%	0%	0%
Research Track	**High**	**Medium**	**Zero**
Delivering university-level courses	75%	0%	25%
Producing policy-related documents	100%	0%	0%
Undertaking CC-related projects/assignments	100%	0%	0%

A comprehensive listing of the technical outputs deriving from participation in the above technical LCB activities is given in Appendix F.

vii. **Leadership perceptions, awareness and self-reflection:** To effectively lead others, one must have a very good sense of self-awareness of one's skills and abilities and how to influence others towards a common vision. In trying to assess the fellows' perceptions and awareness on leadership, we asked them to explain their understanding of what it means to be a leader in the CC-related space, either in providing innovative climate solutions, policy leadership or research leadership. From the summary shown in Table 13, quite a number of fellows still hold a narrow view of leadership, focussing only on their technical expertise and not focussing on aspects of influencing and leading others as well. Further, fellows were asked to rate their degree of self-awareness, self-assuredness and adaptability, which represent psychological capital that influences leader development. The findings captured in Figure 9 show that most of the fellows (86%) have high confidence in psychosocial capital of self-awareness, self-assuredness and adaptability, with the exception of 2 policy and 2 research fellows who gave a self-rating of *average*.

Figure 9: Fellows' self-rating on self-awareness, self-assuredness and adaptability
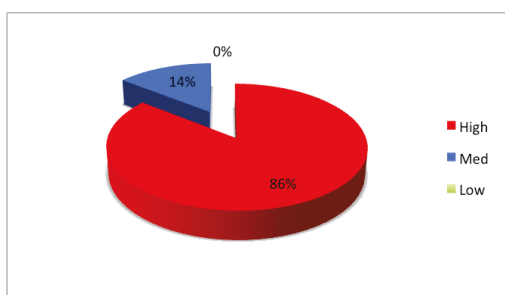
Table 13: CC-related Leadership perceptions

	Narrow view	**Broad view**
Climate Innovations Track	7 out of 9 fellows (78%)	2 out of 9 fellows (22%)
Policy Track	6 out of 9 fellows (67%)	3 out of 9 fellows (33%)
Research Track	5 out of 10 fellows (50%)	5 out of 10 fellows (50%)

Fellows were also asked to rate their leadership capacity in their respective domain (CI, policy or research), and as shown in Figure 10, a majority of the fellows (71%) indicate a good (19 out of 20 fellows) to exceptional (1 policy fellow) rating of their leadership skills. The confidence in their leadership skills has also improved compared to the baseline, with the majority of fellows across all tracks highly attributing this growth to the program, as summarized in Table 14.

Figure 10: Fellows' self-rating on CC leadership capabilities
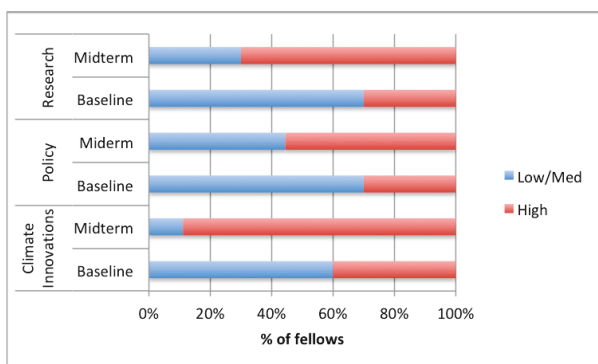
Table 14: Attribution of CC leadership growth

	Climate Innovations	Policy	Research	**All Tracks**
High	86%	100%	86%	**89%**
Medium	14%	0%	14%	**11%**
Zero	0%	0%	0%	**0%**

Eight fellows (1 CI, 4 Policy and 3 Research) rated their leadership capacity as *low* to *average*. The main reasons cited that impede their leadership capacity development and progression are summarized in Table 15.

Aspect	Detail
Managing self	Busy work schedule, Poor time management to handle multiple responsibilities, Poor prioritization
Poor availability/access to required resources	Laboratories, research and innovation materials, publications, collaboration networks, finances to support LCB activities
Inadequate technical and functional skills	Climate finance, CC adaptation strategies, assessment of adaptation strategies, climate communication, influencing policy, stakeholder engagement and influencing, resource mobilization, leveraging social media, sustainable project design, negotiation, climate modelling, bridging the research-policy-practice gap
Navigating the policy and practice arena, and influencing policy makers	Rigid stakeholders including governments who are slow to take up innovative solutions; political interference in policy implementation, corruption amongst policy makers

3.1.2 Sustainability and Continuity

To assess the midterm status of sustainability and continuity of leadership capacity at the individual level, we consider the following indicator: To assess the fellows' skills and confidence in CC-related leadership, we consider the following indicators:

i. **Participation in leadership capacity building activities:** Here, we look at whether the fellows have written funding proposals to support their CC-related work over the review period. As depicted in Figure 11, 24 out of the 28 fellows (7 CI, 9 policy and 8 research) attained a *low to medium* rating on this indicator, having submitted two or fewer proposals for funding. Only 4 fellows demonstrated high capacity in this area having submitted 3 or more such proposals, and as shown in Table 16, they wholly attribute their high ability and good performance in proposal writing to the program. It is important to note that out of the 24 fellows with a *low to medium* rating, 10 of these (6 CI fellows, 2 policy fellows and 2 research fellows) reported not having written a single proposal to support their CC-related work, indicating low sustainability and continuity of their work if progress is not made on this front.

Figure 11: Submission of funding proposals
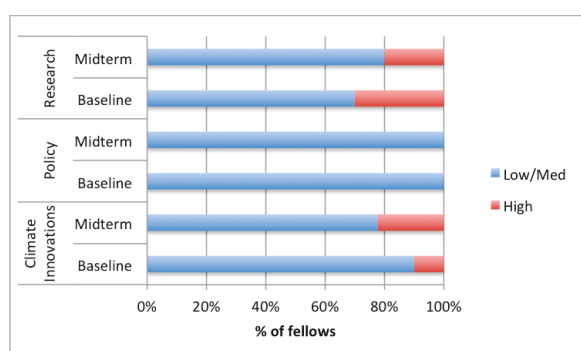
Table 16: Attribution of funding proposal writing and submission

	Climate Innovations	Policy	Research	All Tracks
High	100%	N/A	100%	100%
Medium	0%	N/A	0%	0%
Zero	0%	N/A	0%	0%

ii. **Method of acquiring new skills**: Here we assess how the newly acquired technical skills reported in section 3.1.1 Skills and Confidence Building were acquired. See Appendix D: Trainings and Courses Undertaken for the full listing of these skills. As shown in Figure 12, 40% of the fellows reported having acquired at least one skill through self-teaching or online learning, a good indicator of continuity and sustainability of skills development, in contrast to formal trainings that require financing and travel, as is the case with the formal trainings reported by the fellows.

Figure 12: Method of new skill acquisition
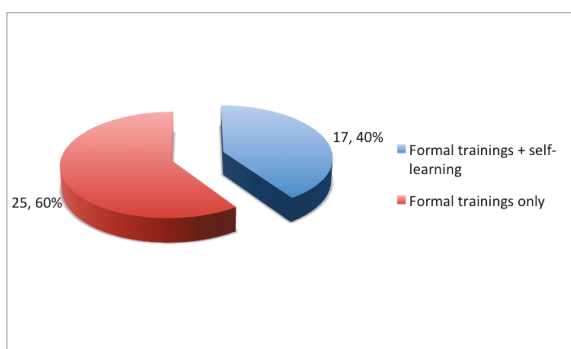
3.1.3 Enabling Function

To assess the capabilities to perform the enabling function, we consider the following:

i. **Capacity development:** This entails supporting the development of individuals' and teams' capacities to generate new knowledge, by facilitating and/or delivering capacity development activities such as mentorship, coaching, delivering professional trainings or teaching university-level courses. As shown in Figure 13, 89% of the fellows across all tracks performed well in this indicator, having contributed to capacity development of other professionals through mentorship, coaching, delivering professional trainings or teaching university-level courses. There's also a significant improvement compared to the baseline where only 54% of fellows had demonstrated a high capacity rating for this function. Of the fellows who attained a *high* rating on this indicator, 67% highly attributed their achievement to the program, with 24% and 9% giving a medium and low attribution respectively, as summarized in Table 17.

Figure 13: Performance rating on the enabling function
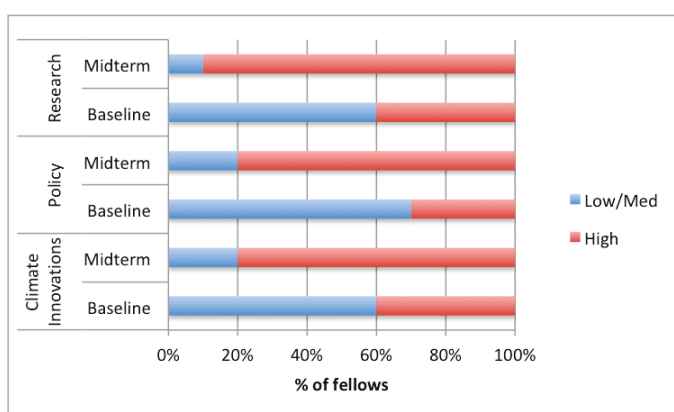
Table 17: Attribution of performance in the enabling function

	Climate Innovations	Policy	Research	All Tracks
High	40%	57%	89%	**67%**
Medium	40%	43%	0%	**24%**
Low	20%	0%	11%	**9%**

3.1.4 Adaptive Function

To assess the generation of new knowledge (or contribution to existing body of knowledge in the CC domain) by the fellows, we consider the following indicators:

i. **Number of Technical outputs:** These outputs are track-specific, and a summary for each track is given in Table 18. See Appendix G for a detailed listing of these technical outputs. To note is that 3 CI fellows reported not working on any climate solution, whereas one fellow reported 4 innovations and 3 pilots, highlighting a stark difference in performance on this indicator. The same applies to 5 policy fellows and 6 research fellows who did not report any policy-related output, despite this being a key output expected from both these tracks. With the exception of production of training materials where CI fellows gave a medium attribution to the program for their high achievements, achievements on all the other technical outputs were highly attributed to the program.

Table 18: Achievements on track-specific technical outputs

Climate Innovations Track	# of outputs	Poor to Average	Good to Exceptional	Attribution		
				High	Med	Low
Climate solutions (Innovations)	9	78%	22%	100%	0%	0%
Innovation Pilots	6	89%	11%	100%	0%	0%
CC-related Training Materials	6	67%	33%	0%	100%	0%
Adaptation Guidelines	9	89%	11%	100%	0%	0%
Policy Track	# of outputs	Poor to Average	Good to Exceptional	High	Med	Low
Policy documents	4	100%	0%	N/A	N/A	N/A

Research Track	# of outputs	Poor to Average	Good to Exceptional	High	Med	Low
Policy documents	7	70%	30%	100%	0%	0%

ii. **Number of Refereed Publications**: In total, the fellows have published 17 journal articles, 11 book chapters, 2 books and 1 extended abstract in a refereed conference proceedings during the period under review. The performance per track on this indicator is shown in Table 19. Six additional journal articles have been submitted by two research fellows and are undergoing review. The full listing of these publications is given in Appendix H. Of concern is that five CI fellows, five policy fellows and four research fellows reported having not produced a single publication, and neither have they reported a submission that is under review. This means that if this trend continues, these fellows will attain a poor rating on a critical indicator, given the importance of peer-reviewed publications in the domain of CC science, policy and practice. Table 20 shows the performance rating per track as well as the extent to which fellows who obtained a high rating in this indicator attribute this achievement to the program. Of the seven fellows who performed well with respect to producing refereed publications, it is only the policy fellows attributed this good performance to the program.

Table 19: Refereed Publications

Track	Journal Articles	Book Chapters	Books	Conference Proceedings	Policy Publications	Track Totals
Climate Innov.	9	5	0	0	0	14
Policy	1	4	2	1	0	8
Research	7	2	0	0	1	10
Pub. Totals	**17**	**11**	**2**	**1**	**1**	**32**

Table 20: Refereed publications - Performance and Attribution

Track	# of outputs	Poor to Average	Good to Exceptional	Attribution High	Med	Low
Climate Innovations	14	67%	33%	0%	100%	0%
Policy	8	78%	22%	100%	0%	0%
Research	10	80%	20%	0%	50%	50%

3.1.5 Connective Function

To assess this function, we consider the following indicators:

i. **Co-authorship of peer-reviewed publications:** As reported in section 3.1.4, 50% of the fellows did not author any publications and therefore scored low on this indicator. Of the 14 who did, 9 (32%) were lead authors while the other 5 (18%) were secondary authors, as shown in Figure 14. Attribution for this achievement is given in Table 21 and shows that all the policy fellows and 50% of the research fellows who attained a high rating on this indicator strongly attributed their ability to co-author refereed publications to the program. The CI fellows gave only a medium attribution to the program for their achievement on this indicator.

Figure 14: Co-authorship of publications
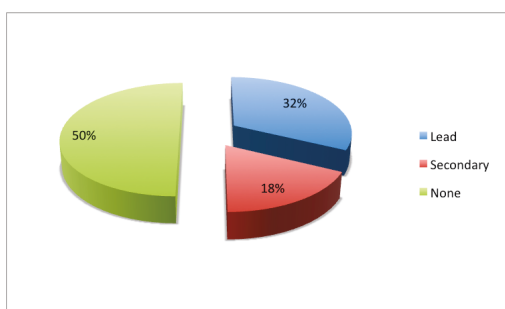
Table 21: Attribution for co-authorship achievements

	Climate Innovations	Policy	Research	All Tracks
High	0%	100%	50%	**62%**
Medium	100%	0%	0%	**13%**
Low	0%	0%	50%	**25%**

ii. **Participation in new intra-regional and extra-regional/international climate related networks and communities of practice:** Only 3 fellows, one from each track, attained a *high* rating on this indicator, having joined and actively participated in three or more professional networks. Of the remaining 25 fellows, 8 of them (32%) (2 CI, 4 policy, 2 research) joined and actively participated in at least 1 network, attaining a *medium* rating. The majority of the fellows (6 CI, 4 policy, 7 research) attained a *low* rating as they reported not having joined any new networks. It is however hoped that they remain active in networks and communities of practice that they had joined prior to their AfriCLP fellowship. Figure 15 summarizes the status on this indicator. All three fellows who attained a *high* rating highly attributed their performance to the program as shown in Table 22. A listing of new CC networks and communities of practice that have been joined by fellows during the period under review is given in Appendix I.

Figure 15: Participation in new professional networks/CoPs

Figure 15: Participation in new professional networks/CoPs
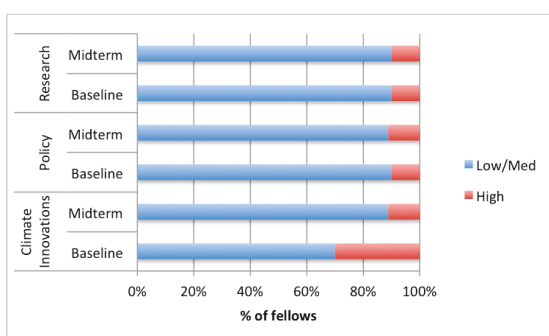
Table 22: Attribution for CC network participation

	Climate Innovations	Policy	Research	All Tracks
High	100%	100%	100%	100%
Medium	0%	0%	0%	0%
Low	0%	0%	0%	0%

iii. **Participation in partnerships and collaborations:** All three tracks recorded a great improvement in this indicator as shown in Figure 16, with every fellow participating in at least one partnership or collaboration engagement with the exception of 3 CI fellows and 1 research fellow who reported no engagements whatsoever. As shown in Table 23, 82% of the fellows (2 CI, 8 policy, 8 research) give a high attribution of this achievement to the program, while 4% indicate to have attained this achievement without any direct contribution of the program. The listing of collaborations per track is given in Appendix J.

Figure 16: Performance on partnerships and collaborations
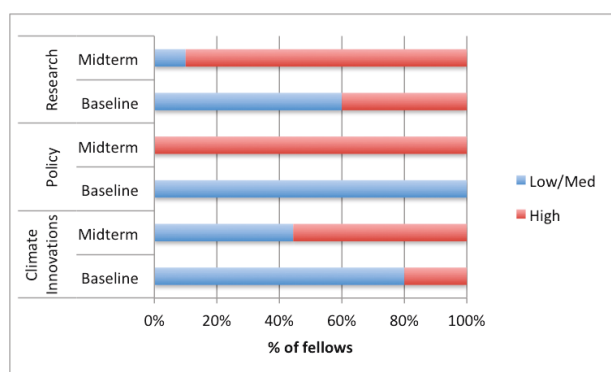
Table 23: Attribution for partnerships and collaboration achievements

	Climate Innovations	Policy	Research	All Tracks
High	50%	89%	89%	**82%**
Medium	25%	11%	11%	**14%**
Zero	25%	0%	0%	**4%**

iv. **Purposeful incorporation of multidisciplinary insights into own work:** Here we considered the extent to which other CC domains[3] (innovations, policy or research) influence or shape a fellow's CC work, through either influencing the work being done, or getting feedback/critique on work done with a view to enriching it. On average across all tracks, most fellows fair better in seeking multidisciplinary/cross-domain insights whilst formulating their work, but less so in disseminating and publicizing their findings to multi-domain audiences. The findings shown in Figure 17 show that despite being in a cross-domain and multidisciplinary fellowship, a radical mind-set shift has not yet

---

[3] Here, we consider for example a policy fellow's purposeful incorporation of climate solutions and research insights and perspectives into their policy work.

occurred for a good number of fellows (56% CI, 56% policy and 70% research) who attained a *low* to *medium* rating on this indicator.

Figure 17: Purposeful cross-domain insight incorporation
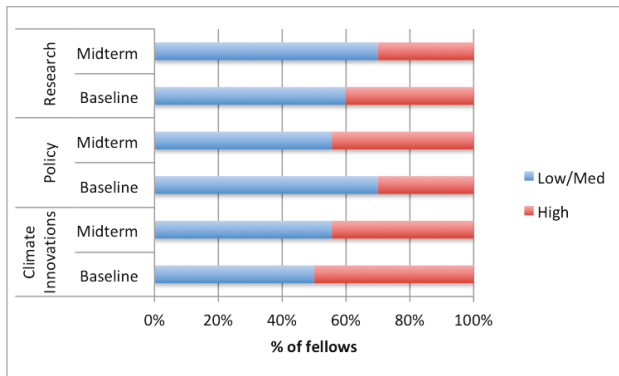
v. **Nature and extent of collaboration:** It is strategic for one to build an extensive network that transcends CC domains (research, policy and practice) and geographical boundaries, in the quest for recognition and visibility as a CC leader globally. With this indicator, we assessed the extent to which fellows have built rich collaboration networks. As shown in Table 24, with the exception of institutional policy collaborations undertaken by 78% of the policy fellows, only few fellows (averaging 17%) have had cross-domain and geographically diverse engagements. However, even these 17% engaged primarily within national boundaries, accounting for 52% of all collaboration engagements undertaken, as shown in Figure 18. This figure also shows that the majority of the collaborations were research-oriented and policy-oriented (52% and 42% respectively), with very few collaborations (6%) being undertaken with climate innovations professionals. This shows a bias towards research and policy orientation without the same emphasis on practical CC solutions.

Figure 18: Domain and geographic diversity of collaboration engagements
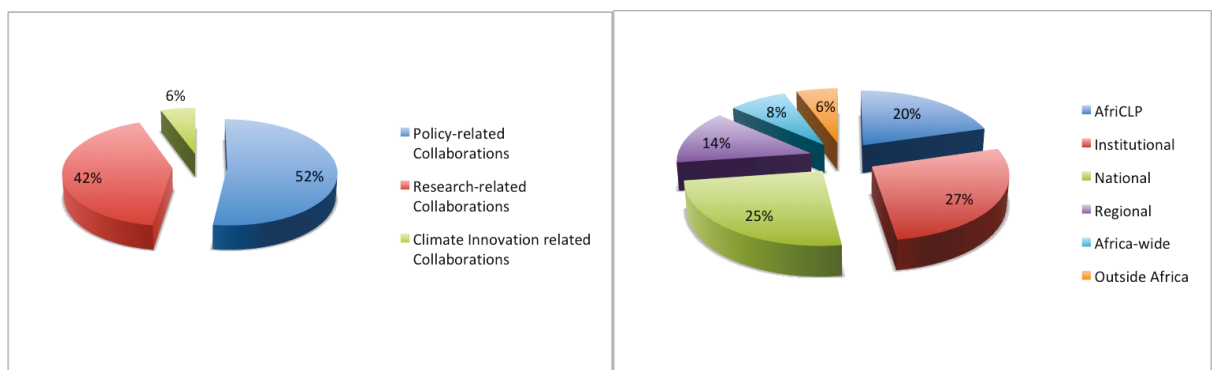
Table 24: Nature and extent of professional engagements and collaborations

Climate Innovations Track			
Reach	**Policy-related Collaborations**	**Research-related Collaborations**	**Climate Innovation related Collaborations**
AfriCLP	22%	11%	11%
Institutional	33%	22%	0%
National	22%	22%	11%
Regional	22%	22%	0%
Africa-wide	0%	0%	0%
Outside Africa	11%	11%	0%
Policy Track			
Reach	**Policy-related Collaborations**	**Research-related Collaborations**	**Climate Innovation related Collaborations**
AfriCLP	44%	22%	0%
Institutional	78%	33%	11%
National	56%	44%	11%
Regional	33%	0%	0%
Africa-wide	22%	11%	0%
Outside Africa	11%	0%	0%
Research Track			
Reach	**Policy-related Collaborations**	**Research-related Collaborations**	**Climate Innovation related Collaborations**
AfriCLP	22%	56%	11%
Institutional	33%	56%	0%
National	33%	44%	0%
Regional	33%	22%	0%
Africa-wide	22%	22%	0%
Outside Africa	11%	11%	0%

When asked to rate their skills on reaching out to, engaging and collaborating with other professionals in the field of climate change, only 52% of the fellows (5 CI, 3 policy, 6 research) rated their skills as excellent, while the other 48% rated their collaboration skills as fair, and this may explain the poor performance in this collaboration indicator. Those who rated their collaboration skills as *fair*, cited the challenges listed in Table 25.

Table 25: Collaboration challenges reported by fellows

Collaboration challenges
Busy work schedules
Lack of finances to support participation in networking forums
Lack of collaboration opportunities for Francophone countries
Limited networking platforms, especially face-to-face which are more effective
Non-influential middle-level job role that limits exposure to high ranking CC professionals
Lack of preferred doctoral academic qualification
Poor collaboration mentality amongst CC professionals which makes it difficult to break in into existing networks as a new/upcoming professional,
'Competition over collaboration' as the driving ethos as professionals compete for limited opportunities

vi. **IPCC-related engagements:** Given the importance of IPCC and the Assessment Reports (ARs), it is important for climate leaders to know and engage national IPCC focal persons as well as lead/contributing authors, in an effort to enhance their visibility and eventual contribution to upcoming and future ARs. To assess the fellows' level of IPCC connectedness, we sought to establish their knowledge of and engagement with the IPCC focal person, knowledge of and engagement with an IPCC lead or contributing author, and any other IPCC-related engagements they have had during the period under review. The results are shown in Figure 19. Whereas majority of the fellows know their national IPCC focal person (89% CI, 89% policy, 90% research), only a few of them (22% CI, 44% policy, 30% research) have had engagements with them. However, 61% of the fellows (5 CI, 5 policy, 7 research) report not knowing any AR6 lead author or contributing author, and coupled with the results on knowledge of the process, schedule and structure of the upcoming AR6, it is evident that the majority of the fellows are not positioning themselves to contribute to this vital knowledge base. Outside focal person or AR6 author engagements, only 3 fellows, 1 from each track, reported having had other IPCC-related engagements.

Figure 19: IPCC-related engagements
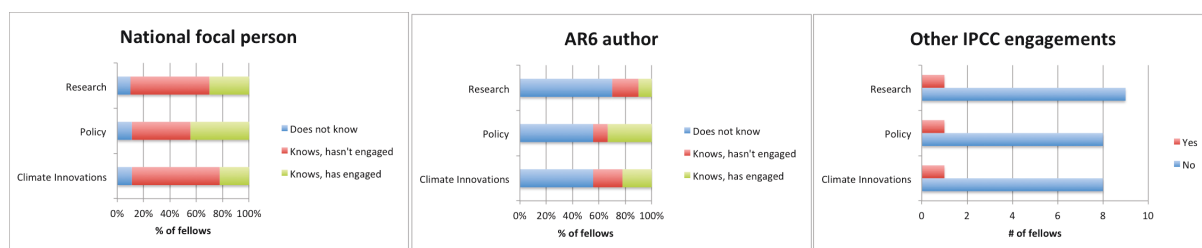
As shown in Table 26, 88% of the fellows who reported IPCC-related engagements strongly attribute this achievement to the program.

Table 26: Attribution for IPCC-related engagement achievements

	Climate Innovations	Policy	Research	**All Tracks**
High	60%	100%	100%	**88%**
Medium	20%	0%	0%	**6%**
Low	20%	0%	0%	**6%**

vii. **Level of competence and confidence in key skills relevant to the *connective* function of CI leadership:** Using a scale of 1 (poor) to 5 (exceptional), CI fellows were asked to rate their level of knowledge, skills and competencies in *stakeholder identification, analysis and engagement*, technical skills that are key for performance and fulfilment of the connective function of CI leadership with respect to designing and successfully scaling climate solutions. As shown in Figure 20, all the fellows rated their competence as *good* or *exceptional*, marking a significant improvement over the baseline when 30% of them gave a *low* or *medium* rating for their competence in this skill. All the CI fellows strongly attributed their high competence in this domain to the program.

Figure 20: Competence and confidence rating of connective skill by CI fellows
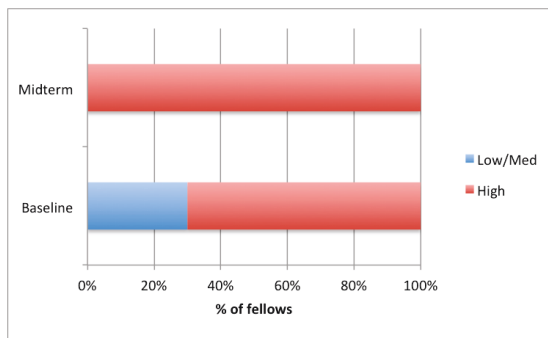
3.1.6   Dissemination Function

To assess this function, we consider the following indicators:

i. **Knowledge dissemination within communities through piloting climate solutions:** Four of the CI fellows reported not having piloted any climate solution, attaining a *low* rating. Of the other 5 fellows, only one reported having participated in more than 1 community pilot, attaining a rating of *high* on this indicator. This fellow gave a strong attribution to the program for his successes in carrying out several community pilots. However, CI fellows have scored lower than they did on the baseline where only 2 fellows reported not having piloted any climate solution. This finding is not surprising seeing as one would need to have developed and tested an innovation before it would be ready for piloting. Given the time under review, it is possible that none of the innovation projects being implemented during the program were ready for piloting. It is however hoped that in the second half of program implementation, that more pilots will be carried out by the CI fellows.

ii. **Diversity of dissemination channels:** Given the complexity of CC and the diverse types of stakeholders in mitigation and adaptation strategies, it is imperative that CC leaders disseminate their work broadly enough to various audiences, by leveraging diverse dissemination channels. To assess performance on this indicator, we considered the frequency of disseminating CC work to research and practitioner audiences, the general public and communities. Table 27 shows the dissemination activity per track, while Figure 21 shows overall progress made to date on this indicator. The findings indicate that the fellows have not performed well with respect to disseminating their work to diverse audiences. The CI fellows faired better with respect to dissemination activities targeted at the general public such as media articles and YouTube videos, but did not do well with respect to other audiences especially the community who would be the primary beneficiaries of their innovative solutions. The attribution given to achievements in disseminating to research, practitioner and general public audiences by the highly rated CI fellows was *high*, *medium* and *high* respectively. The research fellows faired better in disseminating to research and practitioner audiences while the policy fellows faired poorly across the board. The single research fellow who attained a *high* rating with respect to disseminating to research audiences gave a *medium* attribution to the program for this achievement.
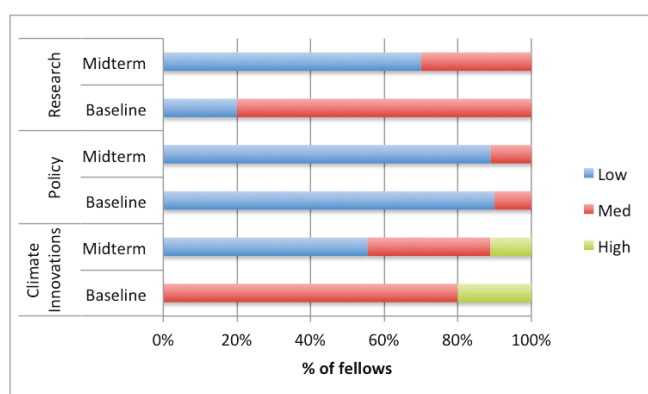
Climate Innovations Track			
Forum	**0 presentations**	**1-2 presentations**	**3+ presentations**
Research audiences (institutional research seminars, conferences)	56%	22%	22%
Practitioner audiences (workshops)	78%	11%	11%
General public (media and social media)	22%	67%	11%
Community outreach meeting	67%	33%	0%
Policy Track			
Forum	**0 presentations**	**1-2 presentations**	**3+ presentations**
Research audiences (institutional research seminars, conferences)	67%	33%	0%
Practitioner audiences (workshops)	67%	33%	0%
General public (media and social media)	89%	11%	0%
Community outreach meeting	67%	33%	0%
Research Track			
Forum	**0 presentations**	**1-2 presentations**	**3+ presentations**
Research audiences (institutional research seminars, conferences)	10%	80%	10%
Practitioner audiences (workshops)	40%	60%	0%
General public (media/social media)	80%	20%	0%
Community outreach meeting	70%	30%	0%

3.1.7 Administrative Function

To assess this function, we consider the following indicators:

i. **Experience in resource mobilization:** Funding is a critical enabler for the generation and application of knowledge, as it enables individuals and teams to experiment and pilot new ideas and approaches. Developing high quality funding proposals is thus a good indicator of a leader's commitment to support the emergence of new knowledge and innovation. As shown in Figure 22, with the exception of the climate innovations track, more fellows have written and submitted proposals for funding than was the case at the baseline. In addition, more of these proposals have been funded, indicating a high rating for such fellows. Of note is one CI fellow with 5 proposals that were funded in 2018[4], and another who submitted 10 proposals during the period under review. In total, fellows have submitted 46 proposals for funding during the period under review, with funding outcomes as shown in Figure 23. Table 28 shows the breakdown of the 46 proposals per track, while Table 29 shows the attribution given to the program for achievements on this indicator.

Figure 22: Performance on resource mobilization
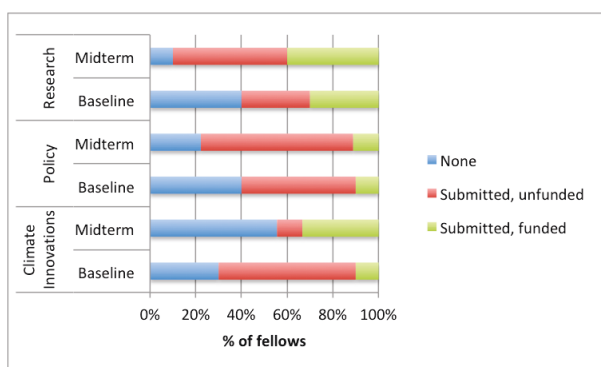
Figure 23: Funding status of submitted proposals
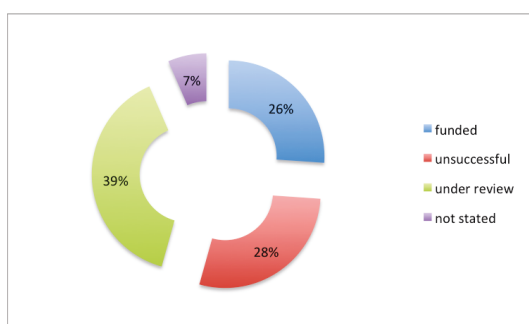
Table 28: Resource mobilization achievement

Track	Funded	Unsuccessful	Under review	Not stated	Totals
Climate Innovations	7	7	6	1	**21**
Policy	1	1	4	2	**8**
Research	4	5	8	0	**17**
Totals	**12**	**13**	**18**	**3**	**46**

---

[4] Clarification is awaited on when the actual proposals were submitted.

	Climate Innovations	Policy	Research	All Tracks
High	50%	100%	75%	**85%**
Medium	50%	0%	25%	**15%**
Low	0%	0%	0%	**0%**

As shown in Table 29, 85% of the fellows who attained a *high* rating on this indicator gave a strong attribution to this program for this achievement, with notably all the policy fellows indicating a high attribution to the program.

ii. **Experience in undertaking CC related projects:** Here, we assessed project management experience by considering if fellows have been involved in carrying out a CC-related project, and if so, if they played a lead role where they were in charge of managing other team members and ultimately being responsible for the success of the project. Figure 24 shows that all tracks have registered a marked improvement on this indicator with 44%, 56% and 60% climate innovations, policy and research fellows respectively attaining a *high* rating. Attribution information for these achievements is given in Table 30 with all the research fellows strongly attributing their performance to the program, unlike the CI and policy fellows where 50% gave a high attribution and the other 50% gave a medium attribution to the program.

Figure 24: Performance on project management experience
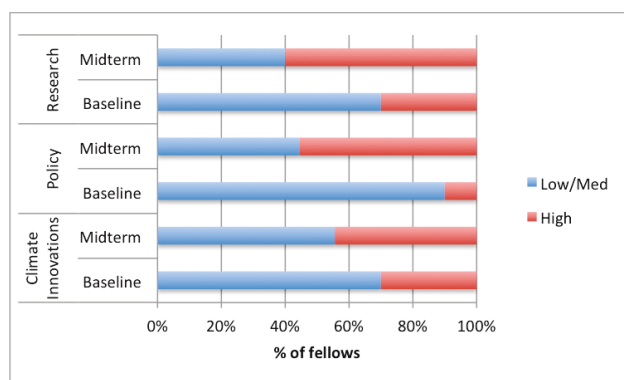
Table 30: Attribution of CC project management achievements

	Climate Innovations	Policy	Research	All Tracks
High	50%	50%	100%	**71%**
Medium	50%	50%	0%	**29%**
Zero	0%	0%	0%	**0%**

iii. **Level of competence and confidence in key skills relevant to the *administrative* function of CC leadership:** Using a scale of 1 (poor) to 5 (exceptional), fellows were asked to rate their level of knowledge, skills and competencies in key skills relevant for performing and fulfilling the administrative function of leadership in CC work. The

results are summarized in Table 31 with each entry indicating the % of grantees who rated their competence as either *poor to average* or *good to exceptional*, for each of the key skills or knowledge areas.

Table 31: Rating of competence and confidence in key skills for the administrative function

Track	Skills/Knowledge area	Poor to Average	Good to Exceptional
Climate Innovations Track	Proposal writing, grant writing and resource mobilization for climate innovation work	44%	56%
	Advocacy, influencing and opinion shaping in matters of climate change	33%	67%
	CC-related innovation project management	22%	78%
Policy Track	Proposal writing, grant writing and resource mobilization for climate innovation work	11%	89%
	Advocacy, influencing and opinion shaping in matters of climate change	44%	56%
	CC-related project management	33%	67%
Research Track	Proposal writing, grant writing and resource mobilization for climate innovation work	10%	90%
	Advocacy, influencing and opinion shaping in matters of climate change	60%	40%
	CC-related research project management	10%	90%

From these results, it is evident that the majority of the fellows rate their competence in key administrative skills as good to exceptional, showing an improvement over the baseline (see Figure 25). However, a majority of the research fellows (60%) rated their advocacy and opinion shaping skills as *poor* to *average*, and the same case applies to the policy track where 44% of the fellows gave the same rating on this skill. The lowest rated skill for the climate innovations track was *proposal writing and resource mobilization*, which correlates to the poor performance recorded for the resource mobilization indicator for this track.

Figure 25: Performance on administrative skills
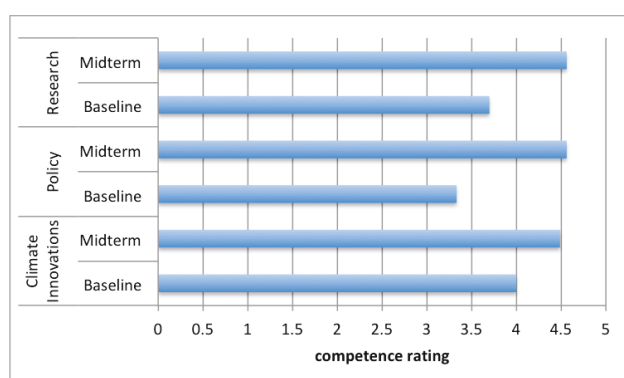
	Climate Innovations	Policy	Research	All Tracks
High	100%	100%	91%	**96%**
Medium	0%	0%	9%	**4%**
Low	0%	0%	0%	**0%**

As shown in Table 32, most fellows (96%) highly attributed development of their administrative skills and competencies to the program, with only 4% indicating a medium attribution.

3.1.8 Summary of findings

The evaluation framework summarized in section 2.1 Conceptual Framework for evaluating CC LCB distinguishes between two aspects of LCB at the individual level – capacity at the core of the individual, and the capacity of the individual to lead and influence others. To establish the capacity at the core, we considered *skills and confidence building*, and *sustainability and continuity*. To establish an individual's capacity to influence others in the domain of CC, we considered the capacity to perform the five functions of CC leadership. The status of CC leadership capacity at the individual level is thus obtained by combining these two leadership aspects, to obtain the overall performance on all indicators, at the track level as well as the individual level. Figure 26 summarizes the track-level performance, which shows that all tracks have improved as compared to the baseline rating, attaining an overall medium rating with scores out of 5 of *3.13, 3.12* and *3.58* for CI, policy and research respectively.

Figure 26: CC Leadership - overall track performance
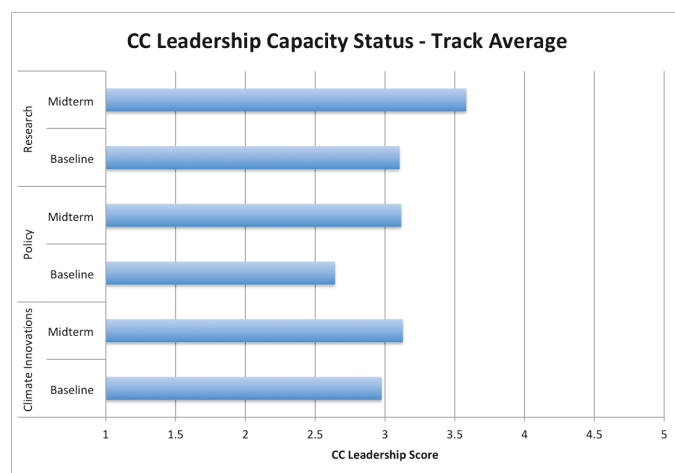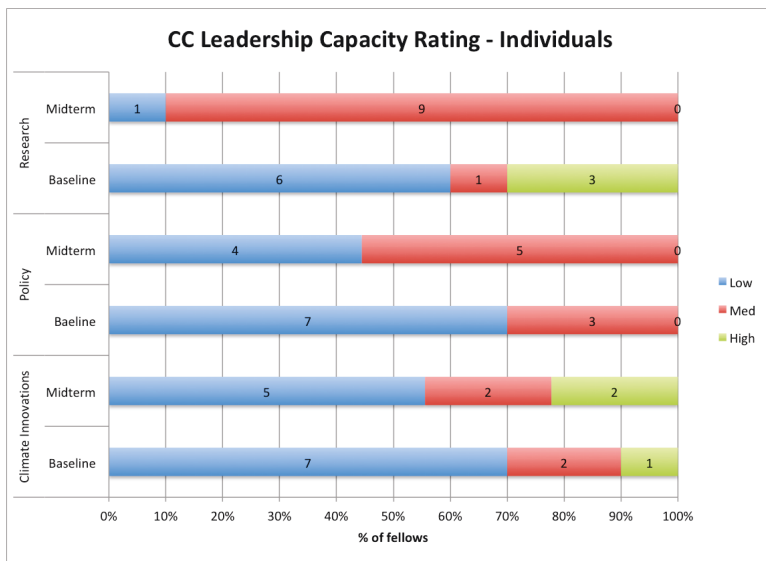
Figure 27 provides a fellow-based view of track performance, showing how fellows have progressed during the period under review. As expected based on the improved track averages, there are now only 10 fellows having a *low* LCB rating as compared to the baseline when there were 20 fellows with this rating. It is important to highlight that fellows who retained the same *low* rating during the midterm, still made progress, attaining an improved average score, with the exception of one. Majority of the fellows (16 out of 28, 57%) have a *medium* rating, with 11 out of these 16 having a score in the higher end of the medium rating classification[5]. With sustained effort, it is expected that most of these fellows, if not all, should attain a *high* rating by the end of the program. Of note are 3 research fellows who attained a *high* rating during the baseline, with two dropping to a *medium* rating and one to a *low* rating during the period under review. Individual performance reports (see Appendix K: Individual CC Leadership Capacity Assessment Report for a sample) that highlight areas where fellows need to address performance will go a long way in supporting these fellows as they seek to strengthen their weak areas, as per the CC leadership evaluation criteria. Two CI fellows demonstrate high CC leadership capacity, one of these being the same fellow who attained a *high* rating during the baseline, an indication of sustained capacity.

---

[5] Above 3.5, where a high rating starts at an average score of 4.

To have a global view of performance within a given track, we averaged individual scores per indicator to obtain the track average per indicator, with a view to drilling down on the specific areas where fellows have shown high capacity and where they have not. **Figure 28** shows a somewhat similar performance trend on the different LCB aspects across tracks – all tracks performed better on the administrative and enabling functions, fairly on skills and confidence building and sustainability and continuity, but poorly on the dissemination, adaptive and connective functions. Indicators where fellows performed, and where targeted LCB activities and interventions can be designed and delivered to improve leadership capacities for the each track, are presented in Tables 33, 34 and 35.

Figure 28: CC Leadership capacity analysis - per LCB aspect
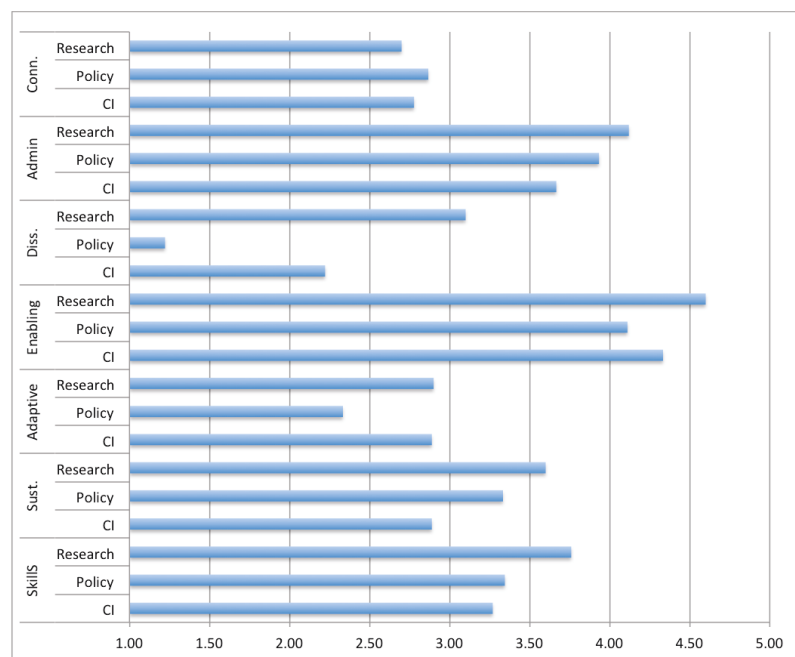
Table 33: LCB Aspects and Indicators with poor performance - CI Track

LCB Aspect	Specific Indicators
Skills and Confidence building	Professional qualifications, AR6 knowledge, Implementing innovations/climate solutions, Piloting climate solutions, Preparing adaptation guidelines, Preparing training manuals, Leadership perceptions
Sustainability & Continuity	Funding proposal submission
Adaptive function	Refereed publications
Connective function	Co-authorship of refereed publications, collaborations and partnerships, domain/geographical diversity of collaborations, IPCC engagements
Dissemination function	Diversity of dissemination channels
Administrative function	Resource mobilization

Table 34: LCB Aspects and Indicators with poor performance - Policy Track

LCB Aspect	Specific Indicators

LCB Aspect	Specific Indicators
Skills and Confidence building	Professional qualifications, Producing policy documents, undertaking CC projects, Leadership perceptions
Sustainability & Continuity	Funding proposal submission
Adaptive function	Refereed publications
Connective function	Co-authorship of refereed publications, Participation in professional networks and CoPs, domain/geographical diversity of collaborations, IPCC engagements
Dissemination function	Diversity of dissemination channels
Administrative function	Resource mobilization

Table 35: LCB Aspects and Indicators with poor performance - Research Track

LCB Aspect	Specific Indicators
Skills and Confidence building	Professional qualifications, Preparing policy documents, Leadership perceptions
Sustainability & Continuity	--
Adaptive function	Refereed publications
Connective function	Co-authorship of refereed publications, Participation in professional networks and CoPs, domain/geographical diversity of collaborations, IPCC engagements
Dissemination function	Diversity of dissemination channels
Administrative function	--

3.1.9 Gender perspectives on CC Leadership Capacity Building

To ensure that this program contributes effectively to the development of both women and men CC leaders, it is important to track the progress of both groups with a view to identifying any challenges or capacity gaps that are unique to either group, and taking appropriate actions to address observed gender-related needs. To obtain this information, we disaggregated the LCB data by gender, and the results are summarized in Figure 29 and Table 36. As shown in Figure 29, there has been a great improvement on the CC leadership capacity status of the male fellows, with only 25% of them having a low rating at the midterm evaluation as compared to 71% at the baseline. The majority of the male fellows (65%) currently have a med rating, while 2 out of 20 male fellows (10%) attained a high capacity rating. This improvement in performance during the mid-term has resulted in an average CC leadership capacity rating (3.42) up from the low rating of 2.95 recorded at the baseline. In contrast, there has not been a significant change in performance rating for the female fellows, with 5 out of 8 (62.5%) attaining a low rating during the midterm evaluation, which is more or less comparable to the 6 out of 9 (67%) who attained a similar rating during the baseline evaluation. Further, none of the female fellows attained a high rating during the midterm evaluation, unlike the baseline where one did. The female fellows attained an average CC leadership capacity score 2.97, up from 2.80, but still retaining an overall CC leadership rating of low.

Figure 29: Baseline vs. Mid-Term CC Leadership capacity (disaggregated by gender)
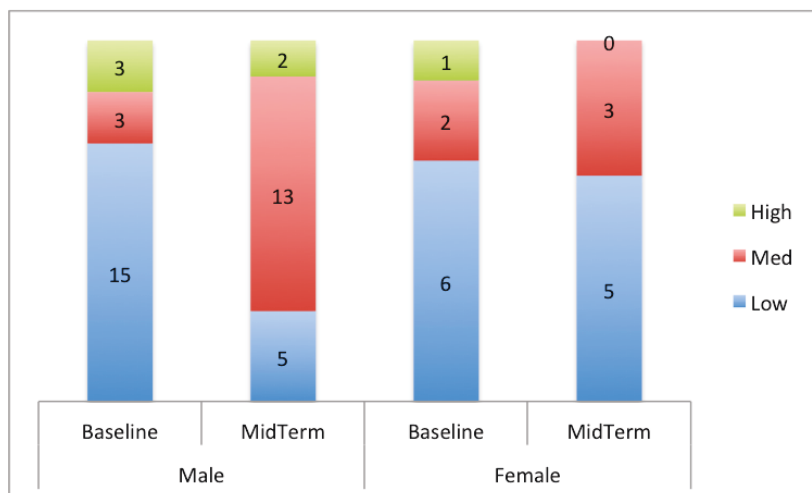
Table 36 shows the detailed performance of both groups on each of the LCB aspects. With the exception of Sustainability and Continuity where the male fellows attained an average rating of med while the female fellows attained a low rating, both groups attained comparable performance on all the other aspects. However, the male fellows attained higher average scores on all aspects, resulting in the observed final aggregate rating of med compared to the low rating attained by the female fellows. This is unlike the baseline performance where the female fellows outperformed their male counterparts in Skills and Confidence building and Enabling Skills. Both groups attained an average rating of high for the enabling function of CC leadership.

Table 36: LCB-Aspect based average CC leadership capacity rating (disaggregated by gender)

LCB Focus	LCB Aspect	Male Fellows				Female Fellows			
		Avg. Score (Base line)	Rating	Avg. Score (Mid Term)	Rating	Avg. Score (Base line)	Rating	Avg. Score (Mid Term)	Rating
Core of the leader	Skills and confidence building	3.17	*Med*	3.55	*Med*	3.35	*Med*	3.27	*Med*
	Sustainability and continuity	2.62	*Low*	3.45	*Med*	2.33	*Low*	2.88	*Low*
	Average	*2.89*	*Low*	*3.50*	*Med*	*2.84*	*Low*	*3.07*	*Med*
Leading/ Influencing others	Adaptive skills	3.14	*Med*	2.85	*Low*	2.22	*Low*	2.38	*Low*
	Enabling skills	2.86	*Low*	4.50	*High*	3.44	*Med*	4.00	*High*
	Dissemination skills	2.76	*Low*	2.45	*Low*	2.00	*Low*	1.63	*Low*
	Administrative skills	3.24	*Med*	3.94	*Med*	3.20	*Med*	3.85	*Med*
	Connective skills	3.09	*Med*	2.92	*Low*	2.90	*Low*	2.44	*Low*
	Average	*3.02*	*Med*	*3.33*	*Med*	*2.75*	*Low*	*2.86*	*Low*
	Overall Leadership Capacity	**2.95**	**Low**	**3.42**	**Med**	**2.80**	**Low**	**2.97**	**Low**

3.2   CC Leadership Capacity: Midterm status at the Institutional/Regional Level

The focus of LCB at the institutional and regional level is on developing institutional/regional CC leadership capacity. To evaluate progress at this structural level of LCB, we consider two evaluation criteria: Sustainability and Continuity, and Investments in Infrastructure. The indicators used to assess progress for these criteria, and results obtained at the midterm evaluation are provided in sections 3.2.1   Sustainability   and   Continuity   and   3.2.2 Investments in Infrastructure.

3.2.1   Sustainability and Continuity

Under this criterion, we are interested in assessing the extent to which the CC leadership capacity that is being developed within this program is sustained over time, and utilized effectively to impact CC research, policy and practice. We considered 4 indicators as follows:

i. **Number of grantees who have successfully implemented their projects**: As shown in Figure 30, majority of the fellows (18 out of 28, 64%) report having completed approximately 50% of their project work. Nine of them (32%) are much more advanced, having completed approximately 75% of their project work. One policy fellow however reports having done only 25% of their project work. The Research track has faired best on this indicator, with 5 of the 10 fellows reporting a 75% completion rate, and the other 5 at least a 50% completion rate.

Figure 30: Estimated CC Project completion rate
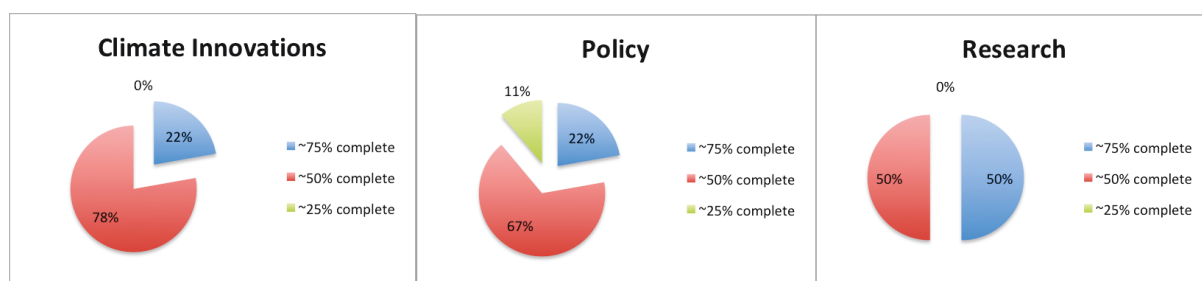
Given that this is the mid-way point of the program, it is hoped that all fellows will make sustained progress in the remaining period so as to successfully complete their fellowship requirements. However, considering the infrequent contact that majority of the fellows have been making with their mentors as shown in Figure 31: Frequency of mentor engagement, and considering that 17 out of the 28 fellows (61%) reported experiencing challenges that could impact attainment of their project targets, extra effort needs to be made to strengthen the mentorship process so that such challenges are addressed as soon as they arise. This will go a long way to ensure that fellows are supported adequately as they seek to complete their projects.

ii. **Number of fellows working in or affiliated to a CC institution or working in a CC-related role**: A good performance is recorded on this indicator with 27 out of 28 (96%) fellows working in CC-related roles, either employed or self-employed. One fellow is enrolled as a full-time PhD student. There is a notable improvement on this indicator since 83% were working in or affiliated to a CC institution, 13% were studying fulltime and 4% were unemployed at the beginning of the program.

iii. **Number of grantees promoted within or outside their institutions**: 24 out of 28 fellows (86%) are employed. Of these, 18 have maintained employers, with 12 of them (67%) having either been promoted or had higher responsibilities assigned to them. 6 fellows have moved to new organizations, all having recorded an upward change in responsibilities. In total, 18 out of the 24 employed fellows (75%) are performing roles with higher responsibilities compared to what they were doing when they joined the fellowship.

iv. **Nature of LCB activities undertaken by grantees and their mentors**: Grantees have undertaken LCB activities that strengthen their leadership skills and technical competencies in CC such as undertaking new courses and trainings, publishing high quality research outputs, participating in varied CC dissemination fora and generating track-specific technical outputs. Further, they continue to strengthen the foundation for sustained participation and contribution in CC via resource mobilization as well as mentoring others and delivering professional trainings, thereby contributing to capacity building at the institutional and regional levels.

3.2.2 Investments in Infrastructure

To support continued development and sustenance of developed CC leadership capacity at the institutional and regional levels, it is important that there exist supportive organizational structures, processes, and requisite CC infrastructure. To assess the extent to which this enabling environment exists within the institutions where fellows work or are affiliated to, we asked fellows to rate, on a scale of 1 to 5, the extent to which, in their opinion, CC has been institutionalized in their institution and region. As shown in Figure 32, 81% of the fellows reported that CC was well institutionalized in their institutions and regions, with only 2 fellows reporting low levels of CC institutionalization and none reporting complete lack of CC institutionalization. These findings, though relying on Fellows' subjective assessment, indicate a positive environment where the CC leadership capacity being developed by the fellows could continue to be nurtured.
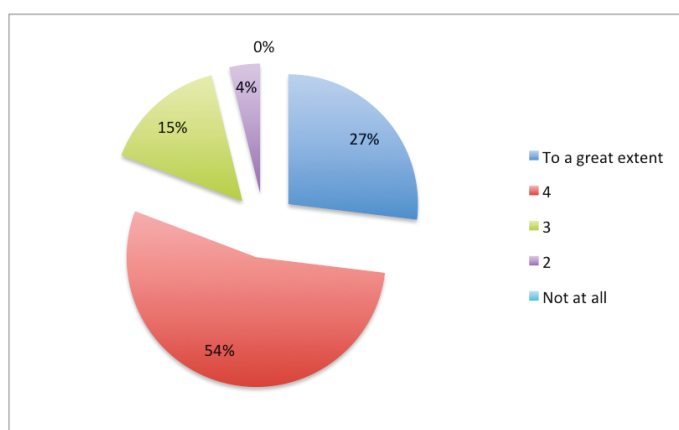
3.3   CC Leadership Capacity: Midterm status at the Network Level

At the network level, we consider two aspects as detailed in section 2.1   Conceptual Framework for evaluating CC LCB These are: *development of linkages and collaborations* and *appropriate dissemination*. The findings obtained for each evaluation criteria are explained in subsequent sub-sections.

3.3.1   Development of Linkages and Collaborations

With this criterion, we are interested in assessing how well the program is fostering collaboration in CC amongst different players, and we consider the following indicators:

i.   **Establishment of intra-regional networks**: The program has created the Africa Climate Change Network (ACCN), a CoP network of African CC experts. ACCN will draw membership from the alumni of the ACCFP, ICTWCC, AfriCLP programs and other CC experts. The ACCN constitution has been developed and the next step is to register it in one of the African countries and thereafter start operations.

ii.   **Establishment of intra-regional partnerships and collaborations**: There has been an agreement to work collaboratively with AWARD where AfriCLP will provide mentorship for AWARD fellows and both programs will jointly organize the end-term conference.

iii.   **Number of outputs such as joint climate proposals involving program grantees and mentors**: With this indicator, we seek to assess actual outputs resulting from intra-AfriCLP collaborations such as funding proposals, projects and publications. This information was not explicitly collected during the mid-term survey, and will be reported during the end-term evaluation. However, given that only a few of the fellows reported any collaborative engagements with other AfriCLP fellows or mentors (29% reported policy-oriented engagements, 29% for research-oriented engagements and 7% for CI-oriented engagements), it is evident that collaboration within the program needs to be encouraged and strengthened, so as to build on the contacts within the network, grantee institutions and affiliated institutions.

iv.   **MoUs signed between collaborating institutions**: No MoUs have been signed between AfriCLP and any other institution.

v.   **Membership of, and participation in the 'October Group' network**: None of the research fellows have joined the 'October Group', with 7 out of them indicating that they have never even heard of the group. This indicates lack of sensitization or information of

this group at the program level, and more needs to be done to ensure the fellows join and participate in this key CC research group.

3.3.2   Appropriate Dissemination

Communication and interaction is key to maintaining an effective collaboration network. The network should also facilitate easy dissemination of information and outputs by its members. Online communication e.g. through a website, provides a cost-effective way to manage communication within a network, as well as enhance visibility of network activities to potential collaborators as well as other stakeholders. The Program's website (*www.africlp.or.ke*) is at the heart of network communication, and we assessed how effective it is as an information exchange and collaboration platform, as measured by the indicators shown in Table Table 37.

Table 37: Website and Social Media Engagement

Indicator	Mar 2018 – Aug 2018	Sep 2018 – Feb 2019
Number of Unique Users	1,004	1,566 (55% increase)
Number of Sessions	1,804	2,743 (52% increase)
Number of Page Views	3,968	6,693 (69% increase)
Average Page View per Visit	2.2	2.44
Average Session Duration	3:10 minutes	3:22 minutes
Bounce Rate	64.58	63.36
Number of Facebook Followers	1,926	
Number of Facebook Likes	1,914 lifetime likes	

To track progress over the past year, we compared data for the first six months March 2018 to August 2018, with the next six months from September 2018 to February 2019. As shown in Table 37, the number of unique website users have been on an upward trend, resulting in an increased number of sessions. However, the high bounce rate of 63%+ indicates that the users aren't sufficiently engaged while they land on the homepage and this points to a need to increase engaging, dynamic content on the homepage which will attract users to click through to other pages on the site. The short average session duration of 3 minutes also points to the lack of engaging content on the website. Further, the blog contains only five posts while there are no posts in the discussion forum, pointing at poor engagement amongst fellows. The Program's Facebook page has 1,926 followers and has registered 1,914 lifetime likes to date. Further analysis[6] of the Facebook page shows that new posts are posted on average 0.2 times a day (~ 1 post per week), whereas the ideal would be daily posts to keep followers continuously engaged.

---

[6] We used the LikeAlyzer tool to analyze the Program's Facebook presence.

4.0   Summary of Results and Recommendations

4.1   Summary of Evaluation Findings

Using the evaluation criteria derived from a combination of Meijerink & Stiller's (2013) integrative framework for CC leadership and Cooke's (2005) capacity building framework, we collected and analysed data that evaluates the midterm status of CC leadership capacity at the individual, institutional and network levels. The main purpose of the midterm survey was to assess if progress is being made towards achieving the program's set goals, outputs and outcomes.

At the individual level of capacity building, the assessment rates 57% of the fellows to have attained an *average* CC leadership capacity rating, and are on track to attain a *high* rating by the end of the program, with improved and sustained progress especially on those LCB aspects and indicators where they recorded low performance. However, two of these fellows had a *high* rating at the baseline so a close follow-up is required to support them to gain momentum during the next implementation period. Even though 32% of the fellows were assessed to have maintained a *low* rating, there was an overall improvement over their baseline scores, showing that they are still progressing, albeit at a slow pace. For these fellows, extra effort and individualized coaching will need to be undertaken to help them strengthen their CC leadership capacity to higher levels by program closure. Of concern is one fellow who joined the fellowship program with a *high* baseline but has now attained a *low* rating. This could either be due to inadequate reporting of progress made during midterm survey completion, or that indeed this individual has not undertaken critical LCB activities during the first half of the program. Two fellows from the CI track have already attained a *high* rating, and will only be deepening their capacities for the remainder of the program.

The analysis drilled down to identify the LCB aspects and particular indicators where fellows in the different tracks did not demonstrate a high capacity, and these have been listed in section 3.1.8   Summary of findings. Across the three tracks, there were some common aspects where fellows did not do well and these include: generating track-specific outputs and co-authored refereed publications, continuing professional development evidenced by new professional qualifications, collaborations and partnerships with domain and geographical diversity, IPCC engagements including strategic positioning to participate in AR6, and participating in dissemination activities targeted at diverse audiences. It is hoped that these track-specific listings will inform the next phase of program implementation, to ensure that the necessary interventions and support are given to the fellows in these areas.

Our evaluation concludes that the program is firmly on track to achieve its set objectives during the second half of program implementation. Given the strong attribution that fellows have given to the program with respect to CC leadership capacity achievements during the period under review, it is clear that this program is contributing substantially to African CC leadership capacity building at the individual level, and by extension at the institutional and network levels as well.

4.2   Recommendations for Program Implementation

In this section, we highlight key recommendations that should be taken into consideration during the next and final phase of program implementation to ensure attainment of the program's programmatic goals of building CC leadership capacity in climate solutions, policy and research, at the individual, institutional and network levels.

i.   The leadership aspects and knowledge areas and competencies where the fellows faired poorly have been summarized in preceding sections. In addition, the fellows mentioned specific challenges that impede their growth as CC leaders, and these have been listed in Table 15. These capacity gaps and challenges should be assessed systematically by the PI and responsive activities either in the form of targeted training, mentorship, experiential learning opportunities etc., be designed and delivered as appropriate, so as to support the fellows in further developing their leadership capacities.

ii.   The cycle of identifying, initiating and nurturing fruitful professional collaborations was cited as a difficult area by most of the fellows during the baseline, and this has persisted to date. Given the importance of professional collaboration when dealing with a global issue that transcends national boundaries such as CC, deliberate efforts need to be taken to expose fellows to relevant networks and CoPs at the regional and international levels, and support their participation at events and technical meetings where they can interact with other professionals, and have new opportunities to explore partnerships and collaborations. Leadership assessments for fellows may also help identify specific challenges or psychosocial capacities at a personal level that hinder effective engagement and relationship building, and enable personalized coaching to address these challenges.

iii. As was the case at the baseline, most CC-related engagements and collaborations were biased towards research and policy, with very few on climate innovations. This remained the case despite the program having a CI track where one would have expected to see more climate innovations oriented engagements at least at the AfriCLP level. To catalyse a practice mind-set or orientation that emphasizes uptake and utilization of research and policy outputs, it might be worth replicating the 'paper competition' concept for 'solutions competition' with the idea being to get primarily the research and policy fellows to contextualize how their work could be utilized in a community context.

iv.   Given that over 50% of fellows (5 CI, 5 policy and 6 research) did not publish any peer-reviewed outputs, it is important for the program management to clearly establish what has hindered progress on this key output, and identify appropriate strategies to support capacity building on this aspect in the remaining time.

v.   With respect to dissemination, the majority of the fellows have focused on research audiences with a few presenting their work in practitioner workshops. To ensure wider dissemination and influence across the board, it is important for fellows to diversify their dissemination channels and synthesize their outputs for different audiences, with particular attention to the general public and communities, as key beneficiaries of CC-related work. Innovative strategies should be identified to help address this requirement. For example, the program could consider requiring all fellows to produce public-facing summaries of their work e.g. as short videos or stories for wider public dissemination.

5.0   References

Breen, C. M., Jaganyi, J. J., Van Wilgen, B. W., and Van Wyk, E. (2004). Research Projects and Capacity Building. *Water SA*, 30(4):429-434.

Crisp B.R., Swerissen, H., Duckett S.J. (2000). Four approaches to capacity building in health: consequences for measurement and accountability. *Health Promotion International.* Vol 15 pp 99-107.

Cooke, Jo. (2005). A Framework to Evaluate Research Capacity Building in Health Care. *BMC Family Practice*. 6 (44)

Meijerink S, and Stiller S (2013). What kind of leadership do we need for climate change adaptation? A Framework for analyzing leadership objectives, functions and tasks in climate change adaptation. Environ Plan C 31:240–256. doi:10.1068/c11129

Nganga, W. (2018). Baseline Survey: *African Climate Leadership Program.*

UNFCCC Secretariat (2017). Achieving the goal of gender balance. UNFCCC Technical paper.

Appendices

Appendix A: List of Respondents

No.	Name	Track
1.	Asaa Ngwabebho Nestor	Climate Innovations
2.	Bonkoungou Joachim	Climate Innovations
3.	Fonocho Charlotte Enjoh	Climate Innovations
4.	Galine Yanon	Climate Innovations
5.	Herbert Kasiita	Climate Innovations
6.	James Cheselemi Wafula	Climate Innovations
7.	Manei Naanyu	Climate Innovations
8.	Mohammed Yacoubi khebiza	Climate Innovations
9.	Stephen Yeboah	Climate Innovations
10.	Berhanu F Alemaw	Policy
11.	Kingsley Kwasi Agyemang	Policy
12.	Mahugnon Serge Djohy	Policy
13.	Pardon Njerere	Policy
14.	Paul Basudde	Policy
15.	Veronica Nonhlanhla Jakarasi	Policy
16.	Cynthia Mwandwe	Policy
17.	Annie Mwayi Mapulanga	Policy
18.	Theresia Willy Massoy-Amon	Policy
19.	Abayineh Amare Woldeamanuel	Research
20.	Barasa Bernard	Research
21.	Chipo Plaxedes Mubaya	Research
22.	David Awolala	Research
23.	Dr. Chukwuemeka Jude Diji	Research
24.	Erick Omollo	Research
25.	Leonard J Chauka	Research
26.	Stanley Jawuoro	Research
27.	Tovihoudji Pierre	Research
28.	Mzime Regina Ndebele-Murisa	Research

Appendix B: Individual Level Leadership Capacity – Evaluation Matrix

LCB Aspect	Indicator	Track	Leadership Capacity Rating		
			Low	Med	High
Skills and confidence building	Professional qualifications	All	None	non-CC related	CC-related
	Employment status	All	Unemployed	Employed in a non cc/non track-related role	Employed in a cc/track-related role
	Promotion or upward change in duties	All	--	None	Yes
	Competence in key technical skills (on a scale of 1-5)	All	1-2	3	4-5
	Knowledge levels of AR6 process, structure and schedule	All	Not at all	Fairly knowledgeable	Very knowledgeable
	Participation in LCB activities (*continuous professional development - new skills and trainings*)	All	None	Non-CC related	CC-related
	Participation in LCB activities (*mentorship*[7])	All	None	At lower professional/ academic level e.g. Undergraduate/ Masters level supervision	At own professional/ academic level e.g. Colleagues/ doctoral/ post-doctoral
	Participation in LCB activities (*conducting professional trainings*)	All	None	Non-CC related	CC-related
	Participation in technical LCB activities (*undertaking CC-related projects or consultancies*)	All	None	1	>1
	Participation in technical LCB activities (*developing innovation solutions*)	CI	None	1	>1
	Participation in technical LCB activities (*piloting innovation solutions*)	CI	None	1	>1
	Participation in technical LCB activities (*developing adaptation guidelines*)	CI	None	1	>1
	Participation in technical LCB activities (*developing CC-related training materials*)	CI	None	1	>1
	Participation in technical LCB activities (*developing/reviewing policy documents*)	P	None	1	>1
	Participation in technical LCB activities (*university-level[8] teaching*)	R	None	undergraduate level only	post-graduate level

[7] Here, we take into account the academic qualification of individual fellows e.g. a PhD holder supervising an undergraduate project versus a PhD project would get *Med* and *High* ratings respectively.

	Participation in technical LCB activities (*developing/reviewing policy documents*)	R	None	1	>1
	Leadership perceptions and awareness	All	focus only on self; narrow view	focus on self and others; narrow view	focus on self and others; broad view
Sustainability and Continuity	Participation in LCB activities - proposal writing	All	None	1 - 2 proposals	3+ proposals
	New skills acquired and method of new skills acquisition	All	None	Formal 3rd party trainings	Self-taught
Enabling function	Capacity development activities (mentorship, teaching or delivering professional trainings)	All	None	1-2	3+
Adaptive function	No. of refereed publications	All	None	1-2 publications/ 1 journal article/ 1 book chapter	3+ publications/ 2 journals or book chapters/1 book
	No. of track specific outputs (*climate solutions*)	CI	None	1-2	3+
	No. of track specific outputs (*adaptation guidelines*)	CI	None	1-2	3+
	No. of track specific outputs (*CC-related training materials*)	CI	None	1-2	3+
	No. of track specific outputs (*policy documents*)	P R	None None	1-2 1	3+ 2+
	No. of track specific outputs (*project reports*)	All	None	--	1+
	No. of track specific outputs (*policy documents*)	R	None	1	2+
Connective function	Co-authorship of publications	All	None	secondary author	lead author
	Participation in intra/extra-regional and international cc n/works	All	None	1-2	3+
	Participation in collaborations	All	None	team member	lead
	Nature, frequency and extent of collaboration (*domain diversity – level of multidisciplinary collaboration*)	All	1 domain	2	3
	Nature, frequency and extent of collaboration (*geographical diversity - spread of collaboration*)	All	I level	2-3 levels	4+
	Purposeful incorporation of multidisciplinary insights into own work (on a scale of 1 to 5)	All	1-2	3	4-5

---

[8] Here we take into account the highest academic qualification of a fellow such that a Master's degree holder teaching a Masters course gets a high rating since it is highly probable that they cannot deliver PhD-level trainings.

	IPCC networking *(knowledge of, and professional engagement with national IPCC focal person)*	All	does not know national IPCC focal person	knows national IPCC focal person but has had no professional engagement	knows national IPCC focal person and has had substantive professional engagement with them
	IPCC networking *(knowledge of AR6 lead author(s)/contributing expert(s))*	All	does not know any	knows, no professional engagement	knows, substantive professional engagement
	IPCC networking *(Other IPCC-related professional engagements)*	All	None	--	Yes
	Competence in connective leadership skills (on a scale of 1-5)	CI	1-2	3	4-5
Dissemination function	Competence in dissemination leadership skills (on a scale of 1-5)	R	1-2	3	4-5
	Knowledge dissemination within communities through piloting climate solutions	CI	None	1	>1
	Diversity of dissemination channels *(research, practitioner, public, community)*	All	0-1	2-3	4-5
Administrative function	Experience in resource mobilization (funding proposals submitted and funded)	All	None	1+ unfunded	1+ funded
	Experience in undertaking CC related projects/consultancies *(carrying out innovation project/consultancies)*	All	None	team member	lead
	Level of competence and confidence in key skills relevant to the administrative function of CC leadership	All	1-2	3	4-5

Appendix C: Qualifications and Certifications

Track	Title	Awarding Institution
Climate Innovations	Embracing the Next Production Revolution for a new Africa Narrative	Politecnico Milano, Italy
	Entrepreneurs without borders	Politecnico Milano, Italy
	Introduction to Industrial Property: patents, designs, trademarks	Politecnico Milano, Italy
	Post graduate Certificate in Climate Change Management	University of Edinburgh, UK
	Cornell Climate Fellowship	Cornell University
Policy	Certificate of Competence in "The Political Economy of Land Governance in Africa"	University of the Western Cape, South Africa
	Certificate in Presentation and Pitching Communications	Communications, USA
	Certificate of Proficiency in Climate Finance	UNIDO
Research	DIES Proposal Writing Courses for Research Projects	University of Cologne, Germany
	Certificate in Ecosystem Services Modeling	Spring university, Spain
	African SWIFT Postdoctoral Research	University of Leeds, UK in collaboration with the University of Nairobi, Kenya
	Expert in Adaptation Finance	Adaptation Finance Fellowship Program
	PhD degree	--

Appendix D: Trainings and Courses Undertaken

Track	Course Title	Institution
Climate Innovations	How to do biomass collection and to differentiate species diversity and density	--
	International entrepreneurship skills	--
	Intellectual Property Rights	--
	Climate Change management and renewable energy	Queen of England's Young Leadership Programme
	Climate Change adaptation and mitigation	University of Edinburgh
	Energy modeling using the ENERGYPLAN Tool	Self taught
	Project management in Energy Transition Projects	World Energy Council
	Ocean Governance	International Ocean Institute
	Feeding a Hungry Planet: Agriculture, Nutrition and Sustainability	Online course
	Climate safeguard system and GHG accounting tool	--
	Research proposal writing and scientific writing and publication	AWARD
	Climate Change Impact, Adaptation and Mitigation in West Africa	WASCAL
	Acquisition and use of the Water Evaluation And Planning System (WEAP)	--
	Use of the NASA's Earth observation data for monitoring progress and reporting on SDG 11 & 15	--
	InVEST application: software models for mapping the value of goods and services from nature that sustain and fulfil human life	--
	Modelling and Analytical Tools for Assessing the Impact of Climate Change on Agriculture	World Bank
	Modelling climate change impacts	--
Policy	Energy Modelling Platform for Africa (EMP-A)	--
	Evidence-Informed Policy Making (Water-Energy-Food-Health	Department of Science and Technology-Pretoria
	Oil, Gas and Mining Governance	--
	Executive Training Course on Extractives and	--

	Sustainable Investments	
	PPP Training Course	--
	Communication (written and verbal)	Self-taught
	Certificate in Presentation and Pitching	--
	Certificate of Proficiency in Climate Finance	UNIDO
	Climate Change and Energy: Policy making for the long term	Harvard Kennedy School
	Conducting Research Interviews	Self-taught
	Communicating climate information and uncertainties better	Future climate for Africa Webinar
Research	Qualitative Data analysis techniques	Self-taught
	SPSS training - qualitative data methodologies and analysis skills	KEMRI-Kisumu
	Climate change sensibility, adaptive capacity and vulnerability analysis	GIZ/PAS-PNA-BENIN
	Climate change impact using crop modeling	Self-taught
	Africa's Energy Landscape: Prospects, Status and Challenges and Environmental sustainability in Africa	International Support Network for African Development (ISNAD- Africa)
	Manuscript Writing	CIRCLE Programme
	Application of Next Generation Sequencing technique in analysis of genetic diversity	--
	Use of R-Programming in analysis of genetic diversity	--
	Use of Stata software in carrying out impact evaluation of climate adaptation programmes and projects	Summer School of the International Econometric Society (SIES)
	Management of Internationalization in Higher Education	--
	Climate change impact using crop modeling	Self-taught

Appendix E: Mentorship Activities

Track	Mentee Category	Mentorship Details
Climate Innovations	Agribusiness Entrepreneur	Establishing a vermiculture project
	Upcoming CC Professionals	Under the Queen Elizabeth Diamond Jubilee Trust, mentoring several professionals intending to start up businesses in the areas of renewable energy and climate change consultancy (policy advisory and technology), as a mentor in the Queen's Young leadership Mentoring programme
	Masters Student	Mentoring a Master's student undertaking field research at Tiogo classified forest
	Masters Student	Mentoring a Master's student from 2iE a private university in Burkina Faso, working on climate and water related subjects
	Masters Student	Supervision of a Master's student working on development and dissemination of climate resilient maize varieties.
	ACCFP Fellows	Mentoring African professionals as part of the program and as host institution in the ACCFP program
Policy	Masters Students	Mentoring students to develop project proposals in climate change
	Office colleague	Mentorship in regard to climate change mainstreaming of the Energy and Mineral Development Sector of Uganda
	Masters Student	Provided mentorship on how to select a relevant research topic that can contribute to creating resilience to climate change
	Techwomen applicant	Mentoring a STEM lady, enabling them to succeed in attaining the 2018 Techwomen grant
	PhD Student	Guiding the student in questionnaire development and survey of stakeholders
Research	Masters Student	Supervising a masters students' research work on *Farmers' Perception and Adaptation To Climate Change And Variability In The Case Of Tocha Woreda, Dawuro Zone*
	Masters Student	Supervising a masters students' research work on *Determinants of Smallholder Farmers' Decision to Adopt Adaptation Options to Climate Change and Variability in Hadero Tunto Zuria District, Kembata Tembaro Zone, South, Ethiopia*
	Undergraduate Students	Guidance and mentorship to undergraduate students undertaking their special projects
	Masters Students	Masters student projects supervision
	Masters Student	Supervision of four *M.Sc Renewable Energy* students at CPEEL, University of Ibadan and Department of Mechanical Engineering in aspects of climate monitoring, finance and developing hybrid energy systems
	PhD Student	Encouraged and guided a PhD student to undertake their research on *Climate change and Fisheries.*
	Masters and PhD Students	Serving as a mentor for students conducting research on sustainable energy, environment, and climate change related topics as part of the International Support Network for African Development (ISNAD-Africa)
	Masters Students	Mentoring Masters and Phd students working on CC related topics: *Rural adoption behavior on bio-organic nutrients as green crop production technologies in ekiti state, Nigeria; Gender Analysis of Access and Utilization of Weather Forecast Information by Rural Households in Ekiti State Nigeria; Analysis of Potential Demand for*

		Evaporative Cooling Systems in Reducing Post-Harvest Losses in Vegetables; Investigating Network Effect of Finance Service Providers Decision for Farmers' Climate Adaptation in Ekiti State, Nigeria
	Researcher	Academic supervisor and mentor to an early career researcher
	Masters Students	Supervising Masters projects as well as fellows on short term SIDA funded International Training Program in Zimbabwe

Appendix F: Professional Trainings

Track	Course Title	Trainees
Climate Innovations	Snail Rearing	Local population of Enyenge
	Smart urban livestock farming	Farmers
	National framework for climate services	Guinea Conakry national government staff
	Crops-Tree Integration	Farmers and other stakeholders under the Forest Investment Program, Forestry commission, Kumasi
	Advancing Sustainable Agriculture and Climate Change Research	Students and staff from Michigan University and staff from CRI 3
	Improved production practices of quality protein maize	--
	Climate Smart Technologies for Sustainable Agricultural Productivity	35 extension agents from Brong-Ahafo region
	Sustainable urban vegetable production and the formation of urban vegetable actors Innovation Platform	Farmers, DDAs and AEAs and Technicians
	Ecosystem and biodiversity impact study of the methanization station installation project	--
	Animation at "Development of a climate plan that integrates mitigation and adaptation strategies to climate change through the game *Clim City*	Youth University, organized by the CDRT-Marrakech
	Training for the elaboration of an orientation framework for adaptation to climate change, for the benefit of Morocco and the countries of West Africa	GIZ, MEMEE-Morocco
	Natural Resources Management	Executives of the Directorate of Spatial Planning
	Adaptation to Climate Change	
Policy	Conservation Agriculture as an adaptation strategy	Lead farmers in Harare
	Women and Climate change	Women farmers
	Participatory Scenario Planning	Agricultural Extension Agents and Farmers
	SDG-Seedbed Stakeholder Workshop	--
	National Climate Change Policy Workshop	Agricultural Officers
	CSA and Food security action plan sensitization	--
	Mainstreaming Environmental and Social Safeguards to the Bank's processes	Bank staff, Harare
	Management of Fall armyworms	Agriculture Field staff
	Understanding Good Agriculture practices and climate Smart agriculture	District Facilitation team (planner, agriculture officer and cooperative officers)
Research	Coping with climate change for enhanced food security and community well-being	Farmers
	Public Understandings of Climate Change in Eastern Africa	British Institute In Eastern Africa
	Promoting Sustainable Agricultural Development in Nigeria using Value Chain Approach	Agricultural Managers and Officers
	Swedish Meteorological and Hydrological Institute's International Training	Researchers working on short-term climate research in Zimbabwe

Appendix G: Technical outputs

Track	Output Type	Output Title
Climate Innovations	Innovations	How to manage Ipomea weed to improve pasture productivity in Kajiado County
		Poly Vinyl Chloride Vermicomposting bins with aeration and drainage outlets used in the vermiculture nurseries
		Wooden bins made from timber off-cuts for large volume vermicomposting projects
		Vermicompost made from earthworm vermicast
		Vermiliquid extracted from vermi bedding
		An ENERGYPLAN model which is capable of optimizing costs, and increasing flexibility with increased RE integration
		A new mobile application (Adcast9) which will be used to disseminate weather forecast information, agricultural extension information and facilitate peer to peer farmer participation and multi-stakeholder action
		Riparian active implication in classified forest management to reduce GHG emissions in collaboration with local stakeholders, decision makers and technical services
		Improving buy-in of climate change intervention in maize producing communities
	Innovation Pilots	Piloting Poly Vinyl Chloride Vermicomposting bins with 4 farmers
		Piloting wooden vermicomposting crates with 1 farmer
		Collaborated with Green House Ventures in scaling up their greenhouses in Bamenda, Douala and Yaounde by providing cheap and sustainable greenhouses with improved support services. We currently have about 12 of such sustainable green housing projects.
		Agriculture micro insurance programmes in Senegal and in Burkina Faso; developing tools and approach to insure farmers against climate risk
		Integrating climate smart quality protein maize food products into the school feeding programme in Ashanti region
		Groundwater coupling to an economical irrigation system
	Training Materials	Production guide on Improved yam production technologies to curb climate Change
		A Primer on Tree-Cocoyam Production in Alley Cropping. A training Manual prepared by CSIR-Crops Research Institute (CRI)-Agricultural Productivity Technology Centre (APTC)- Forest Investment Program.
		A Primer on Tree-Maize Production in Alley Cropping.
		Yam – Cowpea Rotation in Alley Farming. A training Manual prepared by CSIR-Crops Research Institute (CRI)- Agricultural Productivity Technology Centre (APTC)- Forest Investment Program
		Tools for assessing the oases ecosystem services (for the community)
		Adaptation of the Community-based Risk Screening – Adaptation and Livelihoods (Cristal) to the oasis context (for local NGOs)
	Adaptation Guidelines	Mechanical uprooting of Ipomea in improving pasture productivity in adaptation of climate change effects.
		Dos and Don'ts of Farming Earthworms (for Homestead owners)
		Good Vermibeds (for Homestead owners)

		Pre-composting of livestock manures (for Homestead owners)
		Some facts about earthworms (for Homestead owners)
		Worm care tips (for Homestead owners)
		Why you should compost (for Researchers and Students)
		Climate Change Adaptation Guidelines for Coastal Communities
		Low carbon Smart Urban livestock farming kit
	CC-related projects and consultancy assignments	KIVA Direct-to-Social Enterprise Loan Application
		GEF Small Grants Programme Phase 6
		The Energy Association
		Independent Power Producers (IPPs) Market in Africa
		AfDB
		Consideration and integration of CC in the cotton production chain, Malian textile company
		Action capacity building in Africa (Burkina-Faso and Mali), in the field of adaptation to climate change, GIZ-4C
		Development of the territorial development plan of the Marrakech-Safi region
		Climate Change Adaptation and ICT in Uganda by CHAI
		Ecological Organic Agriculture Initiative funded by the Swedish Society for Nature Conservation (SSNC) and the Swedish Development Cooperation (SDC)
		Transformational Leadership for Sustainability funded by CHANGE
		Seed Co Mother and Baby Trial (Team leader)
		Situational study of the damage of the autumn armyworm and the draft plan of action for its control in West Africa (Team leader)
		Integrated approach for managing fall armyworm infestation in maize in Ghana (Agronomy Team Leader)
		Urban Vegetable Production and its Contributions to Sustainability in Ghana (Principal Investigator)
		Forest Investment Programme (FIP) (Agronomy Team Leader)
		Evaluation and Monetization of Ecosystem Services of the Moroccan High Atlas
		Biodiversity and ecosystem services in the water management of the arid river basin, Morocco, funded by NASA
		Collected Information on Urbanization to Verify and Validate the Size of Urban Areas Obtained from Remotely Sensed Earth Observations and Used in SDG 11.3.1 estimate over cities in Morocco
		Developing decision tools for nutrient management in soybean. Funded by IFS
		Understanding the impact of refugees on the surrounding vegetation cover in Northern Uganda. Kyambogo University
		Independent research for the African Science for Weather Information and Forecasting Techniques (African SWIFT) funded by the Global Challenges Research Fund (UK-GCRF)
		Salt in the system - Biodiversity and ecosystem services in the water management of the arid Draa river basin, Morocco
Policy	Policy Documents	Mainstreaming Climate Information into Agricultural Sector Policy of Ghana
		Position Paper on Zimbabwe Priorities to UNFCCC COP24 Negotiations
		YOUNGO's background paper on Adaptation for the policy paper

		for the Global Commission on Adaptation (GCA)
		The sixth national report on biodiversity to CBD
	CC-related projects and consultancy assignments	Evaluation of Renewable Energy Strategy for the Government of Cabo Verde
		Development of Mitigation Instruments for Key Sectors (Energy & Waste) for Cabo Verde, funded by African Development Bank
		Good agriculture practices and climate smart agriculture for FAO (Agriculture consultant) under the Kigoma joint Programme
		Smallholder Irrigation Revitalisation Programme funded by IFAD (Value Chain Specialist)
		Development of an Environment and Climate Diplomacy Training Manual for Konrad Adenaur Stiftung
		Preparing YOUNGO's Adaptation Background Paper funded by the Global Commission on Adaptation (Member of the Central Coordination Team)
		National Climate Change Program funded by UNDP (GIS Expert)
Research	University level teaching	Rangeland Degradation and Environmental Rehabilitation (Masters)
		Economics of Livestock Production (Undergraduate)
		Range Resource Economics and Policies (Undergraduate)
		Climate Change, Extreme Events (Masters and PhD)
		Renewable Energy Policy, Technology and Economics (Masters)
		Marine Conservation Science (Masters)
		Modern Applications of Molecular Biology (Undergraduate)
		Economics of Climate Change (Undergraduate)
		Agricultural Production Economics & Resource Use (Undergraduate)
		Agricultural Statistics and Field Experimentation (Undergraduate)
		Introduction to Project Monitoring and Evaluation (Undergraduate)
		Agricultural Development Administration (Undergraduate)
		Introductory Environmental Economics (Postgraduate)
		Advanced Econometrics Theory (Postgraduate)
		Climate Adaptive Technologies (Masters)
		Fundamentals of Limnology (Undergraduate)
		Fish Genetics and Molecular Ecology (Undergraduate)
		Fisheries Trade and Post-harvest Technologies (Undergraduate)
	Policy Briefs	Policy brief on the distribution of crop and livestock production systems in Uganda
		Enhancing coral reef resilience through restoration in Tanzania
		User Status of Weather Forecast Information among Smallholders in the Savannah Middle-belt of Nigeria
		Economic Value of Weather Information in Agriculture: Lessons from Public Forecast Services in Nigeria
		Weather Shocks and Farmers' Preparedness: Closing the Gap of Climate Information Services through Private Market in Nigeria
		Decision-making and climate resilience in the water sector of Harare
		Alternative inclusive approaches for improving climate information services and decision-making in Harare, Zimbabwe (under review)
	CC-related projects and consultancy	Climate change and Gender Studies-Analysis of Climate change on People Living with HIV/AIDS in Western Kenya for Kenya Medical Research Institute (KEMRI) and the University of California San

	assignments	Francisco (UCSF)
		Climate change sensibility, adaptive capacity and vulnerability analysis for GIZ/PAS-PNA-BENIN
		Development of Disaster Atlas for Uganda for the Office of the Prime Minister
		Development of Child centered Risk and vulnerability atlas for Uganda for UNICEF
		Development of water catchment management plan for Mitano River in Western Uganda, for the Ministry of Water and Environment
		Development of a Strategic Roadmap for the International Fund for Agricultural Development (IFAD) on "Climate Change Adaptation in Africa"
		Africa State of Adaptation Report (SoAR) for the Africa Adaptation Initiative (AAI) of the African Union
		Water-Energy-Food-Environment Nexus in the Upper Blue-Nile Basin of Ethiopia funded by Addis Ababa University (Co-researcher)
		BAFONBE Project funded by WBI (Project manager)
		Climate Change Governance (CCG) under the Democracy Deepening Program (DDP) funded by the Development Alternative Inc. (Team Member)
		Coral - Symbiodinieace symbioses in Western Indian Ocean funded by The World Academy of Science (Principal Investigator)
		The water-energy nexus in the city of Harare under a changing climate; Global Environmental Change (GEC) funded through START (Co Principal Investigator)

Appendix H: Refereed Publications

Track	Publication Type	Publication Title/Citation
Climate Innovations	Journal Article	Bonkoungou, Joachim, J. Compaore, F. Traoré, Olivier Beucher, and Issa Bikienga. 2019. "Analyse De Vulnérabilités Des Systèmes Agraires De La Région De La Boucle Du Mouhoun Au Burkina Faso." European Scientific Journal 15(2):104–20.
		Illou, Mahamadou, Joachim Bonkoungou, and Kabirou Souley. 2019. "Evolution Des Ressources Hydriques et Foncières Pour Les Cultures Irriguées Dans La Commune Rurale de Dan Barto (Département de Kantché Au Niger)." International Journal of Innovation and Scientific Research 40(2):306–15.
		Yeboah S., Zhang R.Z., Cai L.Q., Jun W. (2018): Different carbon sources enhance system productivity and reduce greenhouse gas intensity. Plant Soil Environ. 64.
		Yeboah, S., Lamptey, S., & Zhang, R. (2018). Effects of Different Tillage and Straw Management Systems on Soil Aggregation and Crop Yield in Rainfed Loess Plateau. Advances in Agricultural Science, 6(3), 112-122.
		Shirley Lamptey, Lingling Li and Stephen Yeboah (2018). Reduced tillage practices without crop retention improved soil aggregate stability and maize (Zea mays L.) yield. Ghana Journal of Horticulture (JHORT). Vol. 13, No. 1, pp. 66-80
		Stephen Yeboah, Shirley Lamptey and Renzhi Zhang (2018). Long–term straw retention drives carbon sequestration and crop productivity in dryland soils. Advances in Agricultural Science. Volume 6, Issue 04, 60-71
		S. Yeboah, S. Lamptey, L. Cai1, M. Song (2018). Short-term Effects of Biochar Amendment on Greenhouse Gas Emissions from rainfed agricultural soils of the semi–arid Loess Plateau Region. Agronomy, 8, 74; doi:10.3390/agronomy8050074. www.mdpi.com/journal/agronomy.
		Shirley Lamptey, Stephen Yeboah and Lingling Li (2018). Response of Maize Forage Yield and Quality to Nitrogen Fertilization and Harvest Time in Semi–arid Northwest China. Asian Journal of Research in Agriculture and Forestry. 1(2): 1-10, 2018; Article no.AJRAF.40968
		Ghazi, H., Messouli, M., Yacoubi Khebiza, M., Egoh, B., 2018. Mapping regulating services in Marrakech Safi Region – Morocco, Journal of Arid Environments 159, pages 54–65. https://doi.org/10.1016/j.jaridenv.2018.03.005
	Book Chapter	Vezzoli, Carlo et al. (2018). Sustainable Product-Service System Design Applied to Distributed Renewable Energy9 In. Vezzoli, C. et al. (Eds) *Designing Sustainable Energy for All* (pp 53-100). Springer International Publishing. DOI: 10.1007/978-3-319-70223-0
		Zerouali, S., Yacoubi-Khebiza, M., & El Qorchi, F. (2019). Monetary Value Change of Some Provisioning Ecosystem Services of Middle Draa Valley, South of Morocco. In A. Karmaoui (Ed.), *Climate Change and Its Impact on Ecosystem Services and Biodiversity in Arid and Semi-Arid Zones* (pp. 67-77). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-7387-6.ch004
		Karmaoui, A., Zerouali, S., Shah, A. A., Yacoubi-Khebiza, M., & El Qorchi, F. (2019). Ecosystem Services-Climate-Health Associations: Water-Climate-Leishmaniasis Nexus in an Endemic Focus of Zoonotic Cutaneous Leishmaniasis. In A. Karmaoui (Ed.), *Climate Change and Its Impact on Ecosystem Services and Biodiversity in Arid and Semi-Arid Zones* (pp. 280-

---

[9] A key editorial contribution to all of the chapters has been given by Carlo Vezzoli, Elisa Bacchetti, Fabrizio Ceschin, J. C. Diehl, Emanuela Delfino, Richie Moalosi and James Wafula. James Wafula wrote paragraphs 1.2.1, 2.3.1, 2.3.2, 2.3.3, 2.3.4 and 2.3.5.

		290). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-7387-6.ch014
		Kahime, K., El Hidan, M. A., Sereno, D., Lahouari, B., Ben Salem, A., Mansour, A. A., Messouli, M., & Khebiza, M. Y. (2019). Climatic Factors Impacting Leishmaniasis Risk in a Global View: Case of Morocco. In K. Kahime, M. El Hidan, O. El Hiba, D. Sereno, & L. Bounoua (Eds.), *Handbook of Research on Global Environmental Changes and Human Health* (pp. 359-373). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-7775-1.ch018
		Ben Salem, A., Ben Salem, S., Kahime, K., Messouli, M., & Khebiza, M. Y. (2019). Vulnerability of Human Populations to Climate Change: Focus on Socio-Economical Factors. In K. Kahime, M. El Hidan, O. El Hiba, D. Sereno, & L. Bounoua (Eds.), *Handbook of Research on Global Environmental Changes and Human Health* (pp. 22-40). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-7775-1.ch002
Policy	Journal Article	Mapulanga, Annie Mwayi, and Hisahiro Naito. "Effect of Deforestation on Access to Clean Drinking Water." *Proceedings of the National Academy of Sciences*, vol. 116, no. 17, 2019, pp. 8249–8254. doi:10.1073/pnas.1814970116.
	Book	Sridharan V., Ramos E.P., Taliotis C., Howells M., Basudde P., Kinhonhi I.V. (2018) Vulnerability of Uganda's Electricity Sector to Climate Change: An Integrated Systems Analysis. In: Leal Filho W. (eds) Handbook of Climate Change Resilience. Springer, Cham
	Conference Proceedings	Jakarasi, V.N. et al. - The reality and rhetoric of integrating climate change adaptation into economic sectors in Zimbabwepg 65.In P_Petrik, D., Ashburner, L. 2018. *Conference Proceedings of Adaptation Futures 2018*. Adaptation Futures 2018. University of Cape Town, Cape Town.
Research	Journal Article	Tovihoudji, P. G., Akponikpè, P. I., Agbossou, E. K., & Bielders, C. L. (2019). Variability in maize yield and profitability following hill-placement of reduced mineral fertilizer and manure rates under smallholder farm conditions in northern Benin. Field Crops Research, 230, 139-150.
		Tovihoudji, P. G., Akponikpè, I. P., Agbossou, E. K., & Bielders, C. L. (2019). Using the DSSAT model to support decision making regarding fertilizer microdosing for maize production in the sub-humid region of Benin. Frontiers in Environmental Science, 7, 13.
		Tovihoudji, P. G., Akponikpè, P. I., Adjogboto, A., Djenontin, J. A., Agbossou, E. K., & Bielders, C. L. (2018). Combining hill-placed manure and mineral fertilizer enhances maize productivity and profitability in northern Benin. Nutrient cycling in agroecosystems, 110(3), 375-393.
		Omollo, E. O., Wasonga, O. V., Elhadi, M. Y., & Mnene, W. N. (2018). Determinants of pastoral and agro-pastoral households' participation in fodder production in Makueni and Kajiado Counties, Kenya. Pastoralism, 8(1), 9.
		Diji, C.J (2018) "Assessment of the impact of Hydropower generation System on various downstream communities in Nigeria". NIWE water Journal, December.
		A. Folorunsho and Diji, C.J (2019) "Comparison Based on Energy and Exergy Analyses of a selected Cement Manufacturing plant in Nigeria". IOSR Journal of Mechanical and Civil Engineering (IOSR – JMCE) Volume 16, issue 1, pp 16 - 28
		Chauka, L. J. and Macdonald, A.H.H. (2018). Status of coral-Symbiodiniaceae research in Western Indian Ocean. Symbiosis.
	Policy Document	Ndebele-Murisa M.R. and Mubaya C.P. (2019). Decision-making and climate resilience in the water sector of Harare. Policy brief. https://start.org/publication/policy-brief-decision-making-and-climate-resilience-in-the-water-sector-of-harare/
	Book Chapter	Tovihoudji, P. G., Akponikpe, P. I., Adjogboto, A., Djenontin, J. A., Agbossou, E. K., & Bielders, C. L. (2018). Efficient Use of Nutrients and Water Through Hill-Placed Combination of Manure and Mineral Fertilizer in Maize Farming

| | | System in Northern Benin. In *Improving the Profitability, Sustainability and Efficiency of Nutrients Through Site Specific Fertilizer Recommendations in West Africa Agro-Ecosystems* (pp. 63-89). Springer, Cham. |
| | | Diji C.J. (2019) Energy Transition Process and Sustainable Development. In: Leal Filho W. (eds) *Encyclopedia of Sustainability in Higher Education*. Springer, Cham |

Appendix I: Professional Networks and CoPs

Track	Community of Practice/Professional Network
Climate Innovations	African Innovation Leaders
	Innovations leader for the Next Production Revolution Climate Change Platform
	Future Energy Leader, World Energy Council (UK)
	Project support engineer in renewable energy transition projects
	Cornell Climate Fellowship
	Sustainable Development Solutions Network
Policy	Zimbabwe Climate Change Experts
	Climate Change Working Group at Uganda's Ministry of Energy and Mineral Development
	African Conservation Tillage (ACT) Network
	ClimDev–Africa Youth Platform on climate change
	African Climate Change Adaptation Network (AfricaAdapt)
	Global Environments Network (GEN)
	UNFCCC Youth Constituency (YOUNGO)
	Youth Science-Policy Interface on Disaster Risk Reduction
	Benin Partnership for Climate Change Challenges (BP3C)
	National Technical Committee on Climate Change
Research	Youth in Landscape Initiative of Global Landscape Forum
	International Network for Government Science Advice (INGSA)
	Citizen Science
	CIRCLE Champions and Implementation Leads
	AfricaLics - African Network of researchers in Learning, Innovation and Competence Building Systems
	The International Support Network for African Development (ISNAD-Africa)

Appendix J: Partnerships and Collaborations

Track	Collaboration domain	Focus of engagement
Climate Innovations	Policy	East Africa Community joining the Eastern Africa Ecological Organic Agriculture Initiative
		Policy nexus of urban system services connecting energy, health and housing within the LIRA project with a fellow AfriCLP grantee
		Inscription of the idea of co-management of classified forest for GHG emission reduction
		Reviewing policy documents on climate change adaptation and mitigation with WASCAL
		Contribution to the preparation of Morocco's national climate and adaptation plans
		Human capacity building of some Sahel countries
	Research	Introducing vermicomposting in Cameroon
		Data collection and guidelines for using EnergyPlan modeling tool with a colleague from Lappeenranta University of Technology, School of Energy Systems
		Quality supervision of the research and students involved in professional integration
		Principal investigator of a research collaboration between home institution and Lancaster University, UK
	Innovation	Participation in a Massive Online Open Course (MOOC) on the Next Production Revolution offered through the African Innovation Leaders EU project spearheaded by the Politecnico Milano 1863
		The use of mitigation and adaptation tools in fostering the green potential of Greenhouse Ventures Ltd, a business with hectares of greenhouses which produce organic fruits and vegetables for local supermarkets in Cameroon
Policy	Policy	Supplementation of NDCs
		Identification of entry policy points for AfriCLP project, including presentation of project idea/work to technical team working on the Ghana Agricultural Investment Plan for consideration
		Discussions on the Paris Rule Book, working with the Africa Group of Negotiators
		Discussions with the Director of Climate on the possibility of how the National Climate Fund can be structured
		Evaluation of renewable energy strategy and access to climate financing for Cabo Verde with the EY team
		Developing mitigation instruments for energy and waste sectors for Cabo Verde with Pegasys team
		In association with the UN Major Group on Children and Youth and the UNFCCC Youth Constituency, drafted the background paper on *Adaptation* to the Global Commission on Adaptation (January-March 2019), to be launched in September 2019, on the side lines of the SG Climate Summit
		Engagement through research and development projects
		Engagement with the Ministry of Agriculture, the Conservation Farming Unit and the Zambia agriculture research Institute on AfriCLP project on current status of climate smart agriculture in Zambia at policy and implementation level
		Engagements with President and cabinet with respect to approval of the National Meteorology Policy
		Establishing existing gaps in formulated policies and how to link them to

		the grass root level
	Research	Imparting climate change proposal development to students in collaboration with faculty from Catholic University
		Research collaboration with faculty from Makerere University
		Developed scenarios to be considered in informing the Agriculture and Food Systems Vision 2030 for Zimbabwe's Vision 2030, working with the World Bank
		Drafting and submission of a proposal entitled "Turning Climate Risk into Opportunities through Climate Services in Africa" that is currently in the final stages of review by the EU, working in a group of 20 researchers from 20 universities and research institutions, under the leadership of the Global Climate Services Center of Hamburg
		Outscaling of AfriCLP initiative
		Establishing input purity with Tanzania Official Seed Certification institute
	Innovation	Facilitation of SDG-SEEDBED stakeholder workshop in collaboration with a CI fellow and the Crop Research Institute, Council for Scientific and Industrial Research
		Promotion of Conservation farming as a climate smart innovation with the conservation farming unit in Lusaka, Zambia
Research	Policy	Working within a pool of professionals, contributed to the generation of information for mainstreaming climate change and Gender issues in National, Regional, continental and global Health and Agricultural Interventions
		Participation in Policy forums on climate change governance working with the main CCG policy adviser under the Climate Change Governance of the DDP of DAI
		Writing a policy brief on coral reef restoration upon request from the vice president's office of United Republic of Tanzania; Contributing a chapter on Tanzania in the "State of the Ocean" book.
		Bringing together city stakeholders (city officials, city residents representatives, government etc.) with the aim of building an understanding in city planning and decision making for improved resilience
	Research	Develop a research project that aims to address climate change
		Developing funding proposals collaboratively with various persons and institutions including KEMRI-UCSF staff and LabFran Consultants Ltd
		Working with a fellow AfriCLP to harmonize and streamline AfriCLP projects' research objectives in a way that allows collaboration and increasing value for money in terms of outputs and deliverables, even beyond the life of the current project implementation phase
		Working with INGSA to map out how science advice can be implemented in Nigeria
		Submitted proposal in collaboration with researchers from Kenya (Kenya Fisheries Institute) and South Africa (University of Kwazulu Natal)
		Working with the Centre for Sustainable Development (CESDEV), University of Ibadan, Nigeria to design a Strategic Plan for the International Fund for Agricultural Development (IFAD) on "Climate Change Adaptation in Africa"
		Climate change sensibility, adaptive capacity and vulnerability analysis (GIZ/PAS-PNA-BENIN) carried out in collaboration with Climate Analytics and GIZ as part of the PAS-PNA project
	Innovation	Proposal writing in collaboration with colleagues from the University of Cape town and Nelson Mandela University in South Africa

Appendix K: Individual CC Leadership Capacity Assessment Report

INDIVIDUAL PERFORMANCE OVERVIEW

Name:
Track: Research Track

<u>**MIDTERM LEADERSHIP CAPACITY STATISTICS:**</u>

OVERALL RATING: 3.63 out of 5 = Medium LCB RATING

LCB Aspects:

Self Development   **skills and confidence buildi**

■ Baseline: ■ Midterm:

- Baseline: 4.64
- Midterm: 4.80

sustainability & continuity

- Baseline: 5.00
- Midterm: 3.00

Adaptive

- Baseline: 5.00
- Midterm: 3.00

Leading others   **Connective**

- Baseline: 3.86
- Midterm: 2.20

Enabling

- Baseline: 3.00
- Midterm: 5.00

Dissemination

- Baseline: 4.00
- Midterm: 2.00

Administrative

- Baseline: 5.00
- Midterm: 4.60

Overall LC Rating

- Baseline: 4.49
- Midterm: 3.63