

climate change counts

STRENGTHENING UNIVERSITY CONTRIBUTIONS TO CLIMATE COMPATIBLE DEVELOPMENT IN SOUTHERN AFRICA

IMPLEMENTATION CONCEPT NOTE

NETWORK DEVELOPMENT



June 2014

1 EXECUTIVE SUMMARY

1.1 SARUA Climate Change Programme Overview

SARUA is a Vice-Chancellor-level membership organisation which represents the leadership of public and private universities in the SADC region. SARUA has a seven year track record of implementing programmes based on four activity types: (a) Thought Leadership, (b) Purposeful Engagement, (c) Capacity Building Support and (d) Advocacy and Influence within the higher education sector. SARUA is officially recognised as a SADC subsidiary organisation. In 2010 SARUA initiated the **Capacity Development Programme for Climate Change**.

Programme Objectives	Geographic Scope
The aim of the programme is to develop capacity, ownership and leadership of African institutions in Climate Compatible Development (CCD) research, teaching, and policy and community engagement. This would in turn better inform those who collaboratively produce and use knowledge – universities, governments, communities and other key stakeholders – to influence effective policymaking and implementation in the region. The programme's ultimate objective is to revitalise Higher Education in the region, by building a regional scientific base of new knowledge, which can benefit the region's response to climate change.	SADC region, comprising Angola, Botswana, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe. 

1.2 Programme Outcomes

The programme seeks, at a minimum, to bring about the following outcomes over a 5+ year period:

- **Collaborative network development** – Up to (7) collaborative research clusters established, enabled by three multi-stakeholder networks: Curriculum Innovation, Policy and Institutional Development and Capacity Development.
- **Policy and stakeholder outreach** – Agreement of the knowledge co-production framework implications and actions with policy makers and community development workers in each country.
- **Research** – Multiple themed research clusters comprising a transdisciplinary research network operational, with 140 PhD students participating by end 2017.
- **Teaching and learning** – Climate change issues mainstreamed by way of a regional portfolio of Masters' teaching modules, with customised programmes running in 50% of member countries by 2017. Enablement is coordinated by the Curriculum Innovation network.
- **Knowledge management** – A regional database of climate-related research and teaching activities across the SARUA network provides the basis for networking.
- **Institutional learning and support** – Institutional factors enabling and constraining the development of the programme identified and addressed in development plans of 50% of participating universities.

Opportunities for engagement

- Funding of networks and network development process
- Information dissemination and communication
- Network coordination
- Policy development
- Capacity building
- Advocacy

1.3 Budget Estimate

Phase 2: Transition to Network Development	Phase 3: Network Establishment
£62,000 for coordination activities and professional services, including refinement of research themes and implementation of an Expression of Interest (EOI) phase for network participation.	Network dependent, with initial estimate for Curriculum Innovation network...

2 THE SARUA CLIMATE CHANGE PROGRAMME

In October 2010, Vice-Chancellors from 24 universities representing 10 countries in the SADC region gathered for a SARUA Leadership Dialogue in Mauritius and adopted a *Framework for Action on Climate Change and Adaptation in Higher Education in SADC*. Focusing on the challenges of climate change for regional universities and communities, the *Framework for Action* summarised the following adaptation capacity development needs:

- to create **awareness** and to sensitise communities, governments and the private sector about the **risks of climate variability and change** for development prospects in the region;
- to significantly **improve research and knowledge generation** on climate change, adaptation measures and the associated costs and benefits;
- to better **disseminate information and knowledge** amongst all stakeholders;
- to strengthen regional **scientific policy development and implementation** as well as institutional capacity; and
- to improve **regional capacity for active participation** in international policy networks.

The *Framework* incorporated the following principles: (i) position the revitalisation and renewal of higher education institutions as a core objective of any actions, (ii) integrate multiple paradigms, perspectives and disciplines in the process, and (iii) do all of this collaboratively.

A Deputy Vice-Chancellor SARUA Working Group on Research, Development and Climate Change was formed in March 2011, and a two-phase SARUA Capacity Development Programme for Climate Development was elaborated. Funding was raised for Phase 1 – a mapping study – and work commenced in January 2013. The research component of the Phase 1 mapping study was concluded in December 2013 and the regional Knowledge Co-Production Framework published in May 2014.

Table 1: SARUA Capacity Building Programme for Climate Change: Overview of timeline

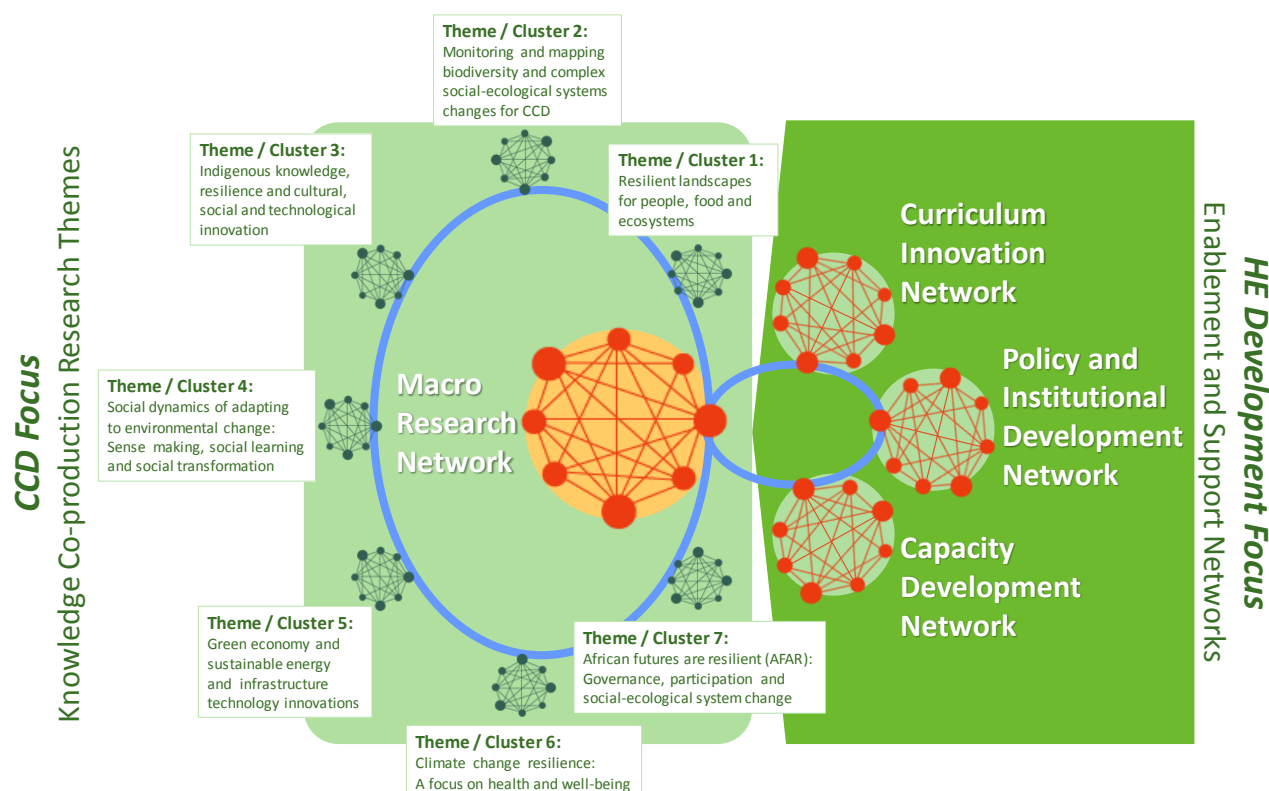
Activities per phase and year				
Phase 1	Phase 2	Phase 3		
Year 1	Year 2	Year 3	Year 4	Year 5 and onwards
■ Conduct an extensive mapping study of current priorities and capabilities of countries in the region.	■ Engage stakeholders and commence with a network development approach aimed at implementing the revised network model.	■ Fund and set up the first networks. ■ Demonstrate early outcomes in research, teaching and learning and knowledge. ■ Fund and set up additional networks.	■ Continue with network capacity building and support. ■ Develop and strengthen knowledge base and regional database of expertise.	■ Continue with network capacity building and support. ■ Develop and strengthen knowledge base and regional database of expertise. ■ Evaluate and report on outcomes.
Completed	KCPF publication			

3 KNOWLEDGE CO-PRODUCTION FRAMEWORK

The mapping study is framed within the broader global climate change research trajectory, but is focused on regional priorities and the establishment of intra-regional partnerships, through which researchers in the southern African region can position themselves in active research clusters and networks to contribute to wider knowledge co-production processes.

As validated in the mapping study, there *is* research being done in SADC countries, but little of this is being published in the international arena *by southern African researchers*. The SARUA mapping study therefore puts forward a research and knowledge co-production framework that allows for the development of ‘critical mass’ at a regional level, and proposes the creation of research clusters with more capacity to produce and publish knowledge for sustainable development and climate resilient pathways for southern Africa and her people. Overall, the vision of the SARUA programme is to create a **system of knowledge co-production** that provides southern African researchers opportunities for capacity building and relevant, high quality knowledge production. A system of knowledge co-production, can however, only be effective if the individual institutions are well-managed and can attract, develop and retain quality academic staff.

The mapping study sets out **four** proposed networks for development – one meta research network comprising **seven** CCD-themed research clusters, identified based on the findings of the mapping study; and **three** enablement networks, which are focused on strengthening the higher education sector, not only in terms of academic output and operational performance, but also in terms of policy influence and regional impact. The proposed networks and research clusters (expanded on in Annexure A) are interlinked and together comprise a regional knowledge co-production framework.



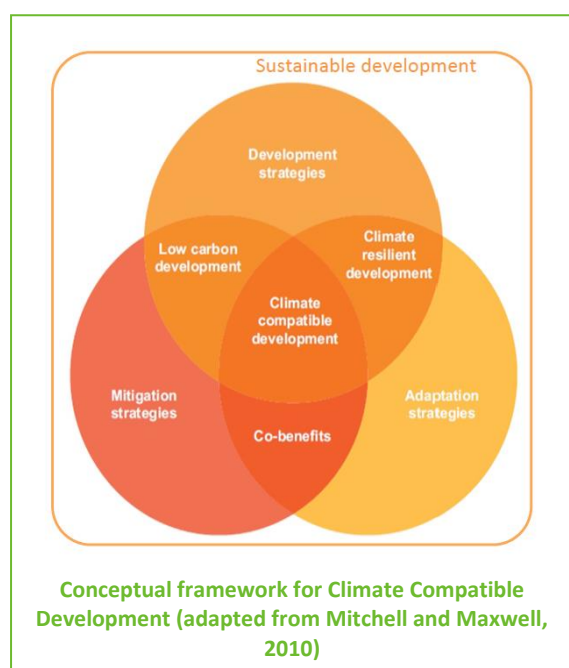
4 SOUTHERN AFRICAN CLIMATE RISKS NECESSITATE URGENT ACTION

In 2014, the Inter-governmental Panel on Climate Change (IPCC) found that in addition to significant observed warming of the region over the past two decades, southern Africa's warming is likely to exceed the global mean land surface temperature increase in all seasons. This could result in a possible increase of up to 6 °C (above the 1986-2005 baseline) by the end of the century.¹ Regional rainfall is expected to decrease on the whole, by up to 30% if global temperatures rise to 4 °C above pre-industrial levels, with increased droughts, flooding, more wind storms, hot spells and wild fires.²

Given the region's high vulnerability to climate change, linked to the severity of the projected climatic changes, as well as structural poverty, existing health threats such as malaria and HIV/AIDS, and institutional and governance aspects, these impacts could have severe effects on regional livelihoods, societies and economies.³ This necessitates significant action on the part of universities to strengthen their contributions to addressing climate change in the region, together with other knowledge partners.

5 CLIMATE COMPATIBLE DEVELOPMENT

Climate compatible development (CCD) is low carbon, climate resilient development. While it can be framed in different ways, given nationally and locally specific development trajectories, it requires



mainstreaming of current and future climate risks into development, with both adaptation and mitigation as integral goals of development. CCD calls for 'triple win' strategies that result in low emissions, build resilience and promote development simultaneously"⁴.

CCD should be viewed as an iterative process, in which vulnerability identification and risk reduction responses are revised on the basis of continuing learning. Given its far-ranging nature, climate compatible development opens up new opportunities for interdisciplinary and transdisciplinary research, teaching and engagement with communities, policy makers and practitioners.

¹ IPCC (2014) *Climate Change 2014: Impacts, Vulnerability and Adaptation*. See Volume II, Regional Aspects, Chapter 22: Niang, I., Ruppel, O.C., Abdrabo, M., Essel, A., Lennard, C., Padgham, J. and P. Urquhart. *Africa*; at <http://www.ipcc.ch/report/ar5/wg2/>

² IPCC (2014); and UNEP (2013) "Africa's Adaptation Gap Technical Report: Climate change impacts, adaptation challenges and costs for Africa," available at <http://www.unep.org/pdf/AfricaAdapatationGapreport.pdf>

³ Boko, M., Niang, I., Nyong, A., Vogel, C., Githeko, A., Medany, M., Osman-Elasha, B., Tabo, R. & Yanda, P. 2007: Africa. In: *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Parry, M.L., Canziani, O.F., Palutikof, J.P., van der Linden P.J. & Hanson, C.E.(eds.), Cambridge UK: Cambridge University Press, 433-467.

⁴ Mitchell, T and Maxwell, S. 2010. "Defining climate compatible development." Policy Brief. CDKN. <http://r4d.dfid.gov.uk/PDF/Outputs/CDKN/CDKN-CCD-DIGI-MASTER-19NOV.pdf>

6 NEEDS ANALYSIS AND INSTITUTIONAL ASSESSMENT

Based on a 12-country assessment of the CCD knowledge needs and gaps in southern Africa, and the institutional (in particular university) responses to these, the following findings emerged:

SUMMARY OF NEEDS ANALYSIS	SUMMARY OF INSTITUTIONAL ASSESSMENT
• There is a commonality between countries on the need for the status of CCD knowledge and research and both individual and institutional capacities to be enhanced. • Within diverse understandings of CCD, there is a region-wide skewing towards adaptation responses. • Broad cross-cutting priority areas for addressing climate change include education, capacity development, policy and institutional strengthening, integrating adaptation and disaster risk reduction, governance, participation and empowerment. • While natural resource-based priorities such as agriculture and water are consistent regional needs, there has been less consideration of the need to adapt economies and industry to climate change. • Knowledge needs are diverse, necessitating a systemic response and the mainstreaming of climate change into under- and post-graduate curricula across universities. • Stakeholders from different sectors across the region identified the need to transcend disciplinary boundaries when addressing climate change. • Social research needs such as cultural change, gender considerations and community participation in climate change are not well articulated in climate change policies and strategies. • Cross-cutting regional knowledge and research needs are inadequate baseline information, lack of long-term data and time series data, inadequate climate projections and weather prediction and lack of a national climate change databases. • Further effort and research are needed to understand and value indigenous knowledge systems for resilience and its potential contribution to adaptation and mitigation. • Significant institutional capacity gaps require a concerted response, including such aspects as a more coherent and supportive research framework to enable the range of research on climate change and CCD. • There is a cyclical relationship between individual and institutional capacity gaps.	• Universities have an important role to play at the CCD science-policy-practice interface. With the demand for climate change policy, universities have responded with more country level policy research. More pro-active approaches to evidence-informed policy making and implementation for climate change and CCD are needed in future. • Few countries have adequate funding mechanisms, or well-developed research systems and incentives that provide an enabling environment for university-based CCD research. Research funding and inadequate research incentives were repeatedly noted as a critical limiting factor. Research policy and national infrastructure is urgently needed for CCD research. • New institutions for CCD research and knowledge co-production are emerging at national and university level: Centres of Excellence, Centres of Expertise and Nodes of Expertise for CCD exist in almost all SADC countries; these are an invaluable resource for CCD knowledge co-production. • Capacity building for new research approaches, methodologies and challenges, as well as knowledge sharing and participation platforms for CCD research also need strengthening. • Disciplinary-based research still dominates, with a lack of interdisciplinary co-operation. The challenges associated with multi-, inter- and transdisciplinary approaches to CCD research include methodology training. There was also a strongly articulated need for support from university leadership. • Curriculum development and innovation for CCD was identified as a key priority across all SADC countries. Curriculum innovation requires strong support, and should include a focus on CCD knowledge, competences, values and ethics, methods, and new paradigm thinking; applied across under- and post-graduate programmes in a range of disciplines and in inter-disciplinary ways. In particular the Masters degree was identified as a key curriculum innovation point for CCD. Staff capacity building, especially at PhD level is needed. • Community engagement in CCD areas was generally seen to be poorly constituted and executed. • Learning from regional and national university responses to similar knowledge initiatives on critical societal issues such as poverty and HIV/AIDS is useful and similar approaches can be considered.

7 KEY IMPLICATIONS FOR REGIONAL KNOWLEDGE CO-PRODUCTION

Given the findings of the needs analysis and institutional assessment, enhanced regional knowledge co-production on climate change will require coordinated action by a range of stakeholders:

Strengthen the role and status of CCD science and technology

- Promote science and technology related CCD knowledge production in all research priority areas
- Prioritise PhD studies to train teachers for excellence in research priority areas
- Promote the participation of more women in CCD related research areas

- Involve regional CCD research organisations, councils, networks and institutions, local and national government institutions, to partner universities.
- Utilise identified nodes of expertise, centres of expertise, and centres of excellence to develop networks around.
- Emphasise within networks the focus on career development in CCD for students and emerging researchers to address societal needs.

Strengthen university / stakeholder partnerships for CCD at national and sub-regional levels

Expand the role that researchers in Africa are playing in the area of CCD

- Expand the contribution of African researchers to knowledge production and innovation through multi-stakeholder support of SARUA research networks and peer reviewed publications, and sharing knowledge with communities.
- Ensure that knowledge not only feeds into policy, but also into community engagement and social change practices, by focusing on indigenous knowledge, implementation-focused CCD policy and research practices, student involvement and through engagement with national CCD response plans.

- Higher Education leadership is required which supports the enabling of research, publishing, teaching and research funding systems at national and university levels, for maximizing CCD knowledge production potential.
- University leadership is critical for curriculum innovation.

Strengthen Higher Education sector and university leadership commitment to CCD

Invest in a pro-active approach to institutional development pathways to create 'critical mass'

- Strengthen existing research groups into centres of expertise and centres of excellence to result in more career pathways for active researchers.
- Introduce post-graduate scholarship programmes, post-doctoral fellowships, supervision training and support, PhD programmes, Masters level curriculum innovations and participation in international research programmes.

- Put in place on national level strong research plans and strategies that can attract regional co-operation and international research partnerships.
- The SARUA Knowledge Co-Production Framework provides a framework at a regional level to attract international partnerships and research funding.
- Policies and strategies require research capacity building emphasis.

Implement policy interventions at national level which facilitate international co-operation in CCD research

Review university policies and campus management practices to include CCD 'modelling' and more student participation

- Develop university level campus management and infrastructure development policies to contribute towards facilitating CCD research and practice.
- Establish 'living laboratories' and 'demonstration sites' of how transitions are to be made to low carbon, climate resilient futures.
- Introduce green building development, sustainable campus management, and student action research.

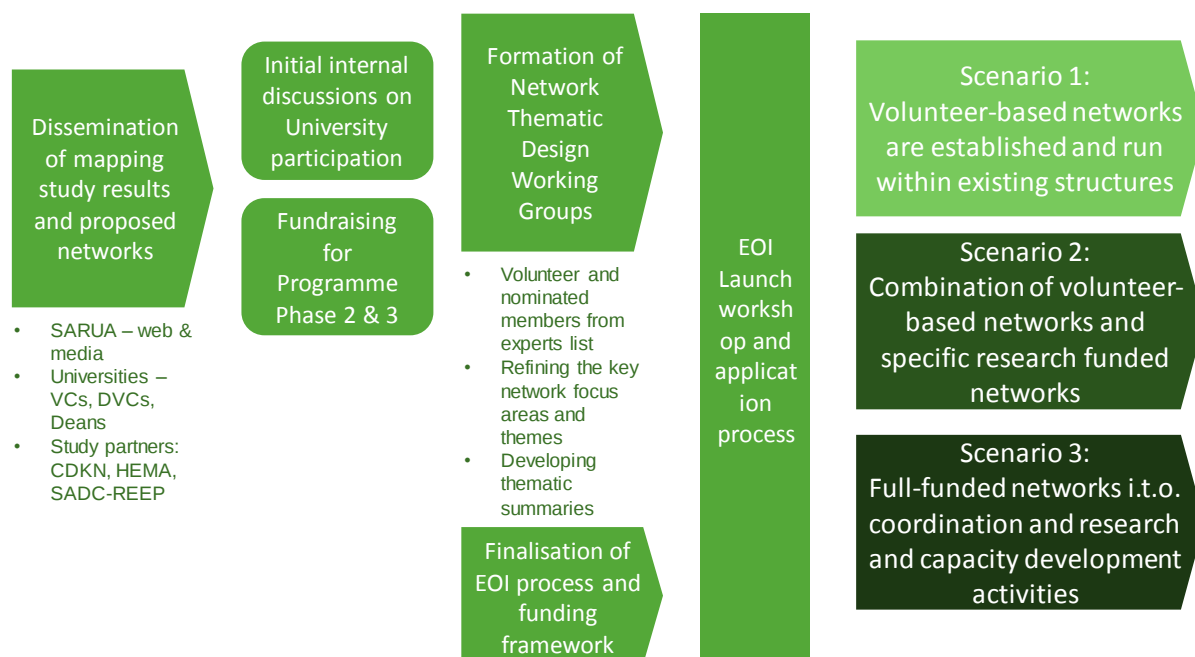
- Introduce new academics into CCD; support and mentor those involved.
- Introduce a region-wide CCD staff capacity development programme to include a dedicated PhD programme for university lecturers, a staff exchange programme for younger academics, publishing support for academic writing and publishing, mentoring of new academics into the field of CCD.

Initiate a process of staff capacity development across the region

8 ROADMAP AND NETWORK DEVELOPMENT

Phase 2 of the SARUA Climate Change Programme involves the definition and initiation of networks, depending on interest and funding secured to support knowledge co-production activities.

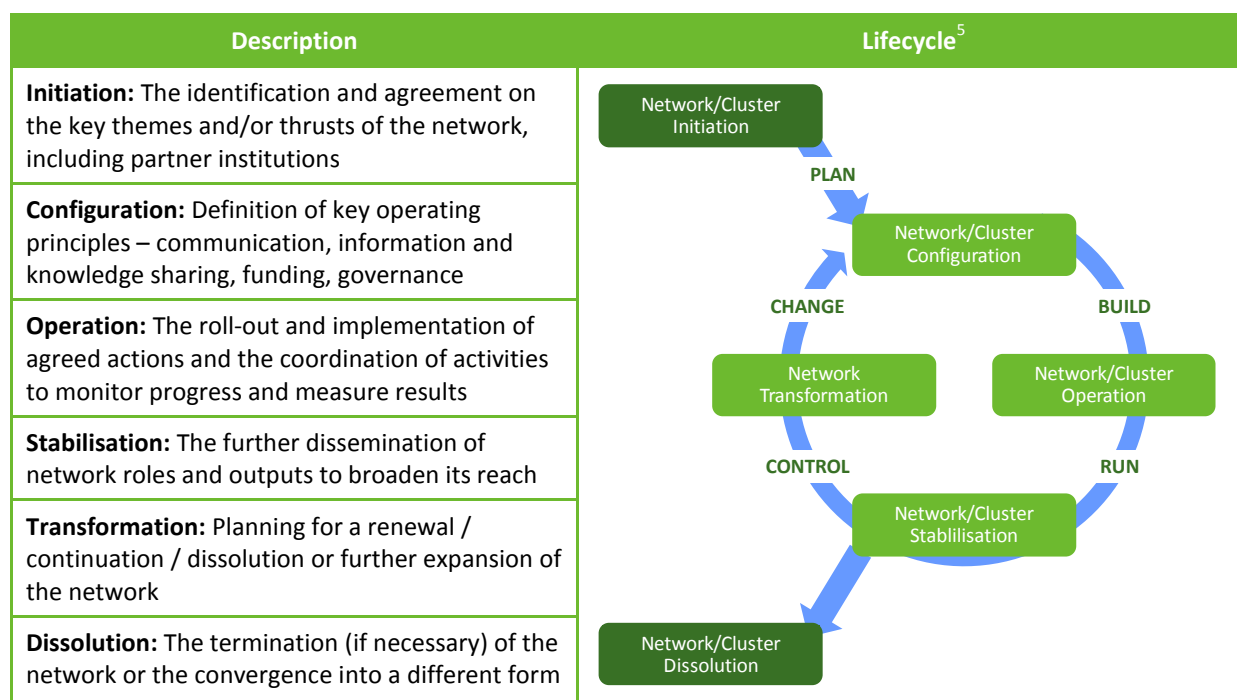
The process of network subscription will be managed according to an Expression of Interest (EOI) process, to be managed by SARUA and representatives from its member institutions.



Network initiation activities are guided by the following principles:

- Network participation is voluntary and open to SARUA members and their employees;
- SARUA coordinates the setting up of initial working groups per network to act as a peer review group during the EOI process;
- Provision is made for non-university network partners to join and contribute to networks;
- The primary level of network initiation engagement is at the university-level, to ensure coordinated network subscription;
- An emphasis on capacity development across all networks requires clear articulation of the expertise or resources contributed to each network by network partners;
- All funding proposals for networks require a SARUA peer review and approval process to ensure a fair and transparent network initiation process;
- Funding for network activities can either be sourced jointly, contributed individually or facilitated through SARUA support;
- All proposals received as part of the EOI process are reviewed according to agreed criteria and submitted to a SARUA Climate Change Programme Working Group for final review;
- Networks can be established with or without funding, depending on emphasis and preferences of members.
- If not funded, a network is coordinated at regional level on voluntary basis.

The mapping study provides the knowledge base required for regional CCD network development. The SARUA programme has adopted a structured network development approach, but each network will follow its own development pathway against a self-defined timeframe.



In terms of each major stage, network partners will agree on membership roles to be performed and assign these according to the network's own development approach.

Role	Role description
Network coordinator	Institution / entity / individual responsible for network management and communication activities
Host institution	University which provides a physical facility for research activities and meetings, or a virtual workspace for information dissemination. This responsibility can be shared for: • Communications • Systems and infrastructure • Events hosting
Lead research chair	Individual who provides academic leadership in research clusters, responsible for overall quality assurance on knowledge co-production approaches and outputs generated
Additional research fellows	Researchers with a specific role, task or interest who contribute in a clearly defined way

⁵ Adapted from Camarinha-Matos, L.M. and H. Afsarmanesh. 2012 (working draft). *Taxonomy of Collaborative Networks Forms*. In collaboration with SOCOLNET (Society of Collaborative Networks).

9 OPPORTUNITIES FOR ENGAGEMENT

The key policy recommendations that have emerged from the mapping study require action on the part of governments, national Ministries of Education, Environment, Science and Technology, partner institutions and universities themselves. The following opportunities for engagement exist for stakeholders across the region to become involved.

Type of engagement	Potential partners	Contribution to be made
Funding of networks and network development process	International and regional donors and funding partners	Financial assistance to selected networks or research clusters of choice to fund: • Network development activities • Development of outputs • Capacity building (e.g. bursaries, research grants) • Other forms of assistance
Information dissemination and communication	SARUA, member universities and CCD partners in all sectors	The findings, recommendations and outcomes of the SARUA mapping study requires widespread dissemination in the region to inform debates, contribute to collaboration and initiate knowledge co-production.
Network coordination	SARUA, member universities	Each network and cluster identified can contribute positively to regional knowledge co-production, yet require dedicated effort and capacity to be established. Universities (or their entities or individuals) can propose or volunteer to become a network coordinator for a chosen cluster or network.
Policy development	Governments and national ministries involved in CCD	The proactive development of policies in response to the SARUA mapping study findings can be undertaken to address wide ranging issues related to CCD gaps and needs.
Capacity building	Established research institutions, international funders or partners	Direct involvement in capacity building is possible through structured learning programmes, mentoring of emerging knowledge producers, capacity-focused funding or other opportunities to be identified by SARUA.
Advocacy	Multiple partners	Partner organisations can use mapping study findings to advocate for CCD policy changes or the development of higher education.

Contact Details

Piyushi Kotecha
Chief Executive Officer: SARUA
PO Box 662, Wits, 2050
South Africa

Email: piyushi@sarua.org
Tel: +27(0) 11 717 3952
Fax: +27(0) 11 717 3950
Website: <http://www.sarua.org>

www.cdkn.org

This document is an output from a project funded by the UK Department for International Development (DFID) and the Netherlands Directorate-General for International Cooperation (DGIS) for the benefit of developing countries. However, the views expressed and information contained in it are not necessarily those of or endorsed by DFID or DGIS, who can accept no responsibility for such views or information or for any reliance placed on them.

This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, the entities managing the delivery of the Climate and Development Knowledge Network do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

© 2014, All rights reserved.