



Digitalizing agricultural transformation through bundling agricultural advisories and risk insurance in southern Africa (SADC)

Programme Concept Note for Technical Assistance

<p>Brief/ Exec summary</p>	<p>The Southern African Development Community (SADC) region is extremely vulnerable to the impacts of climate change. Climate scenarios predict increasing extreme events, as well as increasing temperatures and reduced precipitation; existential threats to farming households and food security. Agriculture makes up 34% of the SADC GNP, with 70% of people relying on it for income and employment. SADC is also marked by a huge proportion of its population being under 30 years old, with high youth unemployment, and an aging farmer population. The proposed “Digitalizing agricultural transformation through bundling agricultural advisories and risk insurance in southern Africa (SADC)” programme aims to transform agriculture and rural livelihoods in SADC. Through enhanced information, investment and insurance involving information and communication technologies (ICTs) and public-private partnerships (PPPs), farmers – especially youth – will be incentivised to take up resilience-building agricultural practices and technologies. The programme focuses on Malawi and Zambia and will develop an approach for resilient climate-informed agricultural development that can be out-scaled in the region in a second phase.</p> <p>The goal (impact level) of this programme is increased food security and stabilized climate-resilient agricultural production in southern Africa through improved access to climate-informed agricultural advisories, risk insurance, agricultural finance and markets, and public private partnerships.</p> <p>The project objectives are:</p> <ul style="list-style-type: none"> a) To increase resilience, food security and incomes of smallholder farmers and rural communities (with a focus on women and youth), by stabilizing agricultural production and enhancing integration with markets. b) To improve access to climate-informed agricultural advisories, risk insurance, agricultural finance and other inputs, and markets. c) To develop an approach to resilient and climate-informed agricultural development including PPPs that can be out-scaled in other SADC member states. <p>Planned main outcomes (for Malawi and Zambia):</p> <ul style="list-style-type: none"> a) Increased resilience and income of 1 M rural households. b) Increased area under climate-resilient agricultural practices by 1.2 M ha, also delivering emissions reduction co-benefits, by 10% relative to BAU. c) Approach to resilient and climate-informed agricultural development (including PPPs) adopted by regional entities and ready for out-scaling in other SADC countries.
<p>Goal / Impact</p>	<p>Increased food security and stabilized climate-resilient agricultural production in Malawi and Zambia through improved access to climate-informed agricultural advisories, risk insurance, agricultural finance and</p>



	<p>markets and public private partnerships plus an approach ready to apply in other southern African countries.</p>
<p>Objectives / Outcomes and Outputs</p>	<p>The project objectives are:</p> <p>a) To increase resilience, food security and incomes of smallholder farmers and rural communities (with a focus on women and youth), by stabilizing agricultural production and enhancing integration with markets.</p> <p>b) To improve access to climate-informed agricultural advisories, risk insurance, agricultural finance and other inputs, and markets.</p> <p>c) To develop an approach to resilient and climate-informed agricultural development including PPP that can be out-scaled in SADC.</p> <p>Planned main outcomes (for Malawi and Zambia):</p> <p>a) Increased resilience and income of 1 M rural households.</p> <p>b) Increased area under climate-resilient agricultural practices by 1.2 M ha, also delivering emissions reduction co-benefits, by 10% relative to BAU.</p> <p>c) Approach to resilient and climate-informed agricultural development (including PPPs) adopted by regional entities and ready for up-scaling in other SADC countries.</p> <p>The main outputs that the programme will deliver are:</p> <ul style="list-style-type: none"> • Output 1: Improved collaborative decision-making for climate-adapted agricultural solutions (Work package 1, GIZ) • Output 2: Increased regional learning for out-scaling of climate-resilient agricultural solutions in the SADC Region (Work package 1, GIZ) • Output 3: Improved climate-informed agricultural e-advisory services by public and private sectors (Work package 2, CCARDESA) • Output 4: Innovative bundled solutions developed for agricultural risk management, including risk insurance (Work package 3, CCAFS) • Output 5: Increased use of ICT-enabled climate risk management in agriculture to empower youth (Work package 4, SACAU) • Output 6: Strengthened enabling environment for climate-resilient agricultural development (Work package 5, FANRPAN) <p>The programme will be coordinated by a group of international and regional organisations with extensive regional experience in agriculture, climate and development (CCAFS, CCARDESA, FANRPAN, SACAU and GIZ), in close collaboration with the Ministry of Agriculture, Irrigation and Water Development in Malawi and the Ministry of Agriculture in Zambia.</p>
<p>Rationale</p>	<p>Malawi and Zambia are extremely vulnerable to the impacts of climate change. A full climate risk analysis done by CCAFS is available (Verhage et al., 2018) which describes in detail the staggering negative effects climate change will most likely have on agriculture in Malawi and Zambia. Negative impacts are projected to affect the agriculture sector, which makes up 40 per cent of the gross domestic product of Malawi and 8 per cent of Zambia's, and on which 65 per cent and 53 per cent of the population of Malawi and Zambia, respectively, rely for income and employment. Fifty per cent of the population in southern Africa is already impacted by food insecurity today. For southern Africa, climate models project rising temperatures, increasing</p>



	<p>variability of rainfall and, in places, decreasing rainfall amounts, together with widespread contraction of the growing season, as documented in the climate risk analysis conducted as background for this concept note.</p> <p>The frequency of extreme weather events will increase. Vulnerability in many of the countries of southern Africa, including Malawi and Zambia, is extremely high due to high poverty rates and dependency of livelihoods on subsistence farming. Current adaptive capacities are low due to poverty, institutional weaknesses and lack of information. Zambia and Malawi are among the most vulnerable countries in the region (Regionale Klimaportfolioanalyse fürs südliche Afrika, GIZ 2012). Without appropriate adaptation, yields of staple crops are widely projected to decrease because of climate change, by up to 35% by mid-century (Verhage et al., 2018). Climate information and seasonal forecasts are not easily accessible in the region and are not available in user friendly formats (Regionale Klimaportfolioanalyse fürs südliche Afrika, GIZ 2012). The delivery of extension services in the rural area is very poor or non-existent (Zambia VAC Food Security and Livelihoods Report 2017). In all SADC countries the government extension services do not adequately reach the rural areas and are ill equipped to tackle climate change issues.</p> <p>The programme will increase resilience to climate change amongst the poor rural population in the target countries by enabling them to have access to affordable climate information, climate smart agricultural digital advisory services, risk insurance and finance services. This will increase productivity of agricultural commodities and value chains that are important from an economic and dietary perspective, and also lead to increased food security, increased average household incomes, and reduced household risk and vulnerability. In addition, through incentivizing the adoption of climate-smart agricultural practices, land area under good management will bring adaptation co-benefits in the form of reduced GHG emissions.</p>
<p>Background/Context analysis</p>	<p>The food security and livelihoods of rural populations in Malawi and Zambia are largely dependent on rainfed farming systems, which are particularly vulnerable to climate change. The important climate sensitive value chains have been determined per country (Climate Change Vulnerability Analysis and climate sensitive Value Chain Selection working paper by CGIAR/CCAFS) and will be the starting point for a planned national stakeholder engagement which is to take place during the concept note stage. In the inception phase, an important and highly climate sensitive value chain based on rain-fed smallholder production and preferably common to Malawi and Zambia will be selected through participatory stakeholder involvement processes at national level amongst the top three identified most climate sensitive value chains. The selected value chain will also be a country priority and allow for South-South learning and knowledge exchange.</p> <p>The programme activities aim at increasing the resilience and profitability of the targeted value chain by improving access to agricultural risk insurance, markets, finance, farm production inputs, and climate-informed agricultural advisories, and therefore will lead to improved resilience, incomes and livelihoods for the targeted beneficiaries (rural population). Activities in the programme development phase will include identification</p>



	<p>of risk management strategies appropriate for different kinds of rural households and mapping of suitable stress-tolerant technologies and practices for targeted farming systems. The entire process will be demand-driven through strong national stakeholder involvement processes.</p> <p>The two focus countries have a huge young population searching for employment and business opportunities, and high youth unemployment rates exist. There are significant youth organizations active in agriculture which can be engaged. Youth engagement will be one of the key drivers of change in this programme, providing support for youth business start-ups in agriculture and making use of the possibilities of ICTs for information and knowledge dissemination to support adoption of climate adapted agricultural practices, technologies and strategies. Cell phone adoption is high and smart phone adoption is rising exponentially in the region. One ICT-knowledgeable youth per family or household can ensure that all members benefit from the proposed new services and information.</p>
<p>Methodological Approach</p>	<p>The programmes objectives and goal will be achieved through the following five work packages:</p> <p>WP1: Driving change for context-specific agricultural solutions</p> <p>Local innovation and business hubs (IBHs) will be created, bringing together farmers, researchers, advisory services, private sector and local planning agencies, to better define needs and enable co-development of solutions. This WP will define the content/input for the WP 2-5 through national stakeholder involvement processes. The hubs are learning platforms for working, testing and communicating innovations which will enable the programme to carry out a real demand-driven development of climate-informed advisory services, transmission modalities for information and suitable insurance products and which will also enable the promotion of successful case studies to support further out-scaling in other countries and marketing of developed final products.</p> <p>Attached to WP 1, an Innovation and Challenge Fund and/or an investment (preparation) facility will be set-up to finance climate change adaptation measures at beneficiary level and to support youth business start-ups for climate risk management. The fund is attached to the IBH work package as the IBH will be the ideal platform to promote the fund amongst stakeholders, to support applications and to create momentum by showcasing successfully funded examples.</p> <p>WP2: Digital delivery and e-advisories</p> <p>Climate-informed advisories through mobile phone technology will become a primary means of extension in years to come. Mobile network providers and ICT companies will be key PPP partners. Supplementary delivery mechanisms, e.g. radio, will be employed as appropriate. This WP will develop climate informed e-advisory services which will be delivered through internet and cell phone technology to the final users in both countries. It will also create the soft- and hardware conditions and capacities to deliver the services.</p> <p>WP3: Agricultural risk insurance as part of a bundled solution to climate change</p>



	<p>Agricultural risk insurance as part of context-specific bundled solutions will be developed and implemented. The bundles can include financial services; networking for access to input/output markets; aggregation for better pricing; climate advisory services; agricultural risk-insurance; other non-agricultural services (e.g. life insurance). This WP will also build capacities of national meteorological services to produce and disseminate suitable climate data for the farming sector and help agricultural extension services to understand the products. The SADC Climate Service Centre will be also supported.</p> <p>WP4: ICT-enabled climate risk management for farming communities</p> <p>Adapting to climate change without having the youth on board will be not possible for southern Africa, especially not for Zambia and Malawi, as young people are making up the biggest proportion of the countries' population. At the same time youth is desperately looking for employment and business opportunities. WP4 therefore focusses on business opportunities in climate risk management for young agripreneurs, whereby young people will be enabled to start a related business which will help their community to better adapt to climate change. These businesses will also include local information delivery and facilitating local input/output markets ("local infomediaries"). Youth will be the agents of change to drive climate change adaptation in this programme.</p> <p>WP5: Facilitating an enabling environment</p> <p>Bottlenecks and opportunities identified in other WPs will be the focus of advocacy and policy advice through a participatory approach with key stakeholders and policy actors. Areas of intervention are enhancing access to mobile phones and services and reducing barriers for mobile phone adoption; reducing regulatory barriers to insurance; and influencing agricultural investments towards climate-smart subsidies. Furthermore, bottlenecks and best practices will be presented and discussed at the SADC Technical Working Committees on Crops, Livestock and Climate Change which from there can be channelled to Ministers of Agriculture and SADC UNFCCC Focal Points.</p>
<p>Target group / Beneficiaries</p>	<p>The target group (1 M households) will be subsistence and small-holder farmers and the vulnerable rural population, particularly youth and women. Beneficiaries are public and private extension services.</p> <p>In Malawi, 84% of the population lives in rural areas, and in Zambia that figure is 60%. Those who engage in farming as their livelihood are 80% of the population in Malawi and 56% in Zambia. These farmers are mostly operating at a small scale, with 94% in Malawi and 52% in Zambia having land holdings of less than two hectares. In Malawi almost one-third and in Zambia almost one-quarter of households are headed by women. Seventy per cent of Malawians are estimated to be living in extreme poverty compared to 58% of Zambians. Young people make up the by far largest proportion of the population: approximately two-thirds of the population in both countries is under 24 years of age (CIA world factbook).</p>
<p>SADC Member States</p>	<p>Malawi and Zambia with the aim of out-scaling to all of SADC</p>



Implementing Partners, Roles & Capacities

The programme is going to be implemented jointly by a consortium of partners consisting of CCAFS, CCARDESA, SACAU, FANRPAN and GIZ. Each organization will take responsibility within a work package and will also have a representative on the joint steering committee that will be established to ensure the WPs all work in an integrated manner as one comprehensive programme (see the Governance section below).

The CGIAR program on Climate Change, Agriculture and Food Security (**CCAFS**) is led by the International Center for Tropical Agriculture (CIAT). CCAFS has direct access to all 15 CGIAR Centres and also works with external strategic partners, and thus can draw on a wide range of expertise. The overall purpose of CCAFS is to marshal the science and expertise of CGIAR and partners to catalyse positive change towards climate-resilient and low emissions agricultural development. It is assessed by the degree to which it achieves outcomes and impacts, and thus always links to development partners and processes in order to facilitate action on the ground or in policy processes.

CCAFS has a strong focus on climate information services and agricultural insurance and is leading or supporting the development of climate services for agriculture in thirteen countries. It also is developing solutions to the challenges of insuring smallholder farmers in seven countries. CCAFS has been awarded several international prizes for its work in the above-mentioned areas. CCAFS, through the International Research Institute for Climate and Society (IRI, one its strategic partners) is already working with the national meteorological services in Zambia and Malawi. There are existing activities on which the programme will be based for further developments (ENACTS-Project).

CCAFS will implement WP3: Agricultural risk insurance as part of a bundled solution to climate change

The Centre for Coordination of Agricultural Research and Development for Southern Africa (**CCARDESA**) is a SADC subsidiary organization established by the Member States to coordinate regional cooperation in the implementation of agricultural research and development in the SADC region. Its mission is: “to promote innovative research, technology generation and adoption for sustainable agricultural development through effective partnership and capacity building”. CCARDESA has a strong regional mandate in the 15 SADC Member states as a knowledge broker and has convening power to get the audience of key actors in the agricultural research and development (R&D) landscape in the SADC region.

CCARDESA interventions focus on 1) Farmer empowerment and market access, 2) Research and technology generation and farmer demand-driven advisory services and innovation systems, 3) Knowledge, information and communication as well as 4) Institutional development and capacity building. The organization has a strong focus on youth involvement and gender.

CCARDESA has implemented or supported R&D activities related to climate change, ecosystem issues and digital agriculture in a total of 10 countries (Botswana, Lesotho, Swaziland, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe). CCARDESA has developed an



internet-based portal through which it intends to become an agricultural information and knowledge hub for the SADC region. The system is currently being improved through support from the GIZ-ACCRA Programme. The portal is an important entry point for providing e-services to the region. CCARDESA also implemented a number of other initiatives in relation to the use of ICT in agriculture, youth involvement, innovation platforms and business incubation. The organization is quite active in the selected countries.

CCARDESA will implement WP2: Digital delivery and e-advisories

The Southern African Confederation of Agricultural Unions (**SACAU**) is a membership-based regional farmers' organisation (civil society organization) representing the common interests of farmers in Southern Africa. It currently has 18 members from 12 countries (Botswana, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe), who collectively represent more than 5 million farming households. SACAU's operations are based on three pillars of policy advocacy, strengthening of farmers' organisations and provision of agriculture-related information to members and stakeholders. SACAU has 1,065,015 members in Zambia and 32,000 members in Malawi. SACAU will work at the national level through its member farmers' organizations and youth farmers' organizations. Youth involvement and digital technology is a strong focus of SACAU, having invested in the form of AgriSP and already running a digital farmer aggregation platform and membership management system. SACAU works actively with young farmers in the region and is currently establishing a regional platform for them. Furthermore, SACAU already has access to a network of potential private and development sector partners.

SACAU will implement WP4: ICT-enabled climate risk management for farming communities

The Food, Agriculture and Natural Resources Policy Analysis Network (**FANRPAN**) is a regional multi-stakeholder policy research, advocacy and capacity building network (civil society organization) with a mandate to work Africa-wide. FANRPAN was established through a call by Ministers of Agriculture in Eastern and Southern Africa in 1994 for a sub-regional organization that would generate evidence to inform policy dialogues amongst stakeholders such as policy makers, farmers' organizations, youth and women organizations, researchers, agribusiness and civil society organizations. The establishment of FANRPAN was seen as an opportunity for the region to reduce its dependence on the "external supply" of policy advice.

FANRPAN seeks to build resilient food systems across Africa through creation, implementation and assessment of FANR policies that are both evidence-based and developed in partnership with non-state actors. FANRPAN's work is guided by three strategic goals: (i) Transformed African agriculture and food systems through the development and implementation of evidence-based policy; (ii) Adequate, safe and nutritious food for Africa; and (iii) Climate change resilient and resource sustainable food systems in Africa.



	<p>FANRPAN is a “network of networks”, meaning that whilst there is a small regional secretariat that coordinates activities, the majority of FANRPAN’s work is undertaken through its policy nodes which engage with targeted constituencies at local and national levels in 17 African countries (Angola, Benin, Botswana, Democratic Republic of Congo, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe). FANRPAN will work on the national level through the existing FANRPAN policy nodes Civil Society Agriculture Network (CISANET) in Malawi and the Agriculture Consultative Forum (ACF) in Zambia.</p> <p>FANRPAN will implement WP5: Facilitating an enabling environment.</p> <p>The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is a German government owned federal enterprise - a service provider in the field of international cooperation for sustainable development and international education work. GIZ holds 35 years of experience in climate change and over 40 years in sustainable agriculture practices, also in the southern Africa region. As one of many programmes, the SADC Adaptation to Climate Change in Rural Areas in southern Africa (ACCRA) has supported CCARDESA and SADC member states to integrate CSA into their agricultural programs and investments. GIZ will be responsible for the overall financial and technical management of the programme as well as implementation of WP1: Driving change for context-specific agricultural solutions, the coordination between all WPs, the monitoring and evaluation as well as the implementation of the financing instrument at beneficiary level (Innovation and Challenge Fund and/or Investment Preparation) Facility.</p>
<p>Governance</p>	<p>A joint steering committee comprised of the Ministries of Agriculture in Malawi and Zambia, the five consortium partners and civil society and private sector representation will assure the strategic guidance and oversight of the program.</p> <p>Furthermore, the agriculture and climate change related governance arrangements established by the SADC Secretariat will be utilized to seek strategic guidance and submit agenda items to SADC Ministers of Agriculture. These are the Technical Working Groups on Crops, Livestock and Climate Change.</p>
<p>Alignment to SDGs, UNFCCC Paris Agreement</p>	<p>This initiative contributes to achieving the following Sustainable Development Goals (SDGs): SDGs 1 (end poverty), 2 (end hunger and achieve food and nutrition security), 5 (gender equality and empower women and girls), 13 (combat climate change and its impacts), and 15 (sustainable use of terrestrial ecosystems).</p>
<p>Alignment to continental and SADCs Policy Frameworks</p>	<p>This initiative is aligned to and contributes to the key SADC framework documents, including the revised Regional Indicative Strategic Development Plan (RISDP), the SADC Regional Agricultural Policy (RAP) and its investment plan, the SADC Food and Nutrition Strategy (2015-2025), the Climate Change Strategy and Action Plan (2015), and the revised SADC Protocol on Gender and Development, among others.</p> <p>At continental level this initiative is informed by the Comprehensive Africa Agriculture Development Programme (CAADP); the Malabo Declaration; and the Science Agenda for Agriculture in Africa (S3A).</p>



<p>Contribution to achieving NDCs and other relevant national policies/strategies</p>	<p>The programme idea is aligned with important priorities formulated by Malawi and Zambia in their respective <i>Nationally Determined Contributions (NDCs)</i> and <i>National Adaptation Plans (NAPs)</i>.</p> <p>Zambia: The NDC mentions under the national priorities: i) Promotion of Climate Smart Agriculture (CSA) practices for crop, livestock and fisheries, and the mitigation of GHGs; and ii) Further research for CSA, improved water management and the establishment of insurance schemes.</p> <p>The draft Zambian NAP includes agriculture, food security and meteorological information as priority sectors.</p> <p>Malawi: The NDC includes the following relevant topics in agriculture: i) support to crop insurances; ii) dissemination of climate-resilient practices and varieties; iii) implementation of agroforestry and conservation agriculture; and iv) increase of irrigation.</p> <p>The draft Malawian NAP also includes agriculture, fisheries and food security as priority sectors.</p>		
	<p>Adaptation focus</p> <p>yes</p>	<p>Mitigation focus</p> <p>no</p>	<p>Mitigation as co-benefit</p> <p>yes</p>
<p>Time line</p>	<p>06/2020 to 06/2025 (5 years)</p>		
<p>Estimated budget and partner contribution</p>	<p>The total estimated budget including requested funding amounts to 49.490.000,00 USD.</p> <p>The following in-kind and financial contributions are anticipated by implementing partners (to be confirmed during proposal development):</p> <p>Co-financing through a new German Climate Change programme in SADC possible (implementation planned from 2020 onwards, programme currently under development) which gives an extraordinary chance to develop the new SADC climate programme and the investment proposal in parallel and to create as many synergies and co-financing chances as possible.</p> <p>Potential co-financing is also possible though existing CCAFS/CGIAR initiatives, where commitments already amount to:</p> <p>CCAFS: 250k per annum X 5 years = 1 million</p> <p>CGIAR Center (depending on final value chain): 250k per annum X 5 years = 1 million</p> <p>Additionally, funds from the private sector as contribution in PPPs will be leveraged (these will be quantified in concept development phase once value chain selection is finalized with stakeholder input).</p> <p>The private partners will be selected in a competitive process, depending on their expertise in the field, previous projects and existing customer satisfaction and their willingness to contribute own resources.</p>		
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